SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi) 14/5, Hesaraghatta Main Road Bengaluru-560057

SAPTHAGIRI
College of Engineering
Creating Tomorrow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project entitled "**Anti-Krait Venom Activity of Folk Medicinal Plants**" carried out by **Ms. HARSHITHA G**, USN **1SG15BT013**, **Ms. SAHANA N M** USN **1SG15BT026**, **Ms. SAHANA R** USN **1SG15BT027** and **Ms. SINDHOORA RAO B**, USN **1SG15BT029**, bonafide students of Eighth Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project report prescribed for the said degree.

13/06/19

Dr. Veena S More
Guide and H.O.D,
Department of Bio-Technology

Head of the Department
Department of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore-57

13/06

Dr. K.L Shivabasappa
Prinicpal,
Sapthagiri College of Engineering

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

Name and Signature of Examiner's:

1. Dr. H G Nagendra
2. Dr. Veena S. More

15/6/19

15/06/19

Principal
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Bangalore-560 057

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Fax : 080 42201907, 080 2
www.dsu.edu.in

Ref:

Date:

CERTIFICATE

This is to certify that **Ms. Harshitha G, Ms. Sahana N M, Ms. Sahana R** and **Ms. Sindhoora Rao B**, students of Sapthagiri College of Engineering, Bengaluru, Karnataka, from the Department of Biotechnology have carried out a project entitled "**Anti-Krait Venom Activity of Folk Medicinal Plants**"at School of Basic and Applied Sciences, Dayananda Sagar University, Kumaraswamy Layout, Bengaluru, Karnataka 560078, under my supervision in the Centre of Toxinology Research Lab funded by DST from February 2019 to May 2019.

08/06/19

Dr. Sunil S More
Professor & Dean
School of Basic & Applied S
Dayananda Sagar Unive
K. S. Layout, Bengaluru

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

(Affiliated to Visvesvaraya Technological University, Belgaum, Approved by AICTE, New Delhi)
14/5, Hesaraghatta Main Road, Bengaluru-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled, **"Screening of *Atrocarpus heterophyllus* Latex for its Anticongulant Property on blood plasma"** carried out by **Ms. B VARSHINI (1SG15BT003), Ms. DEBIKA CHAKRABARTY (1SG15BT006), Ms. DISHA D B (1SG15BT008), Ms. KEERTHANA N (1SG15BT016)** are bonafide students of eight semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belgaum during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Name the & Signature of the Guide

(Mrs Shobha G)

13/06/19

Name & Signature of HOD

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road,
Bangalore-57

(Dr Veena S More)

13/06

Name & Signature of Principal

(Dr K L Shivabasappa)

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

External Viva

Name of Examiners & Signature with date

1. Dr. Chandrashekar Naik 14/6/19
2. Prashanth Kumar. H.P 14/06

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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CERTIFICATE

TO WHOMSOVER IT MAY CONCERN

This is to certify that the project entitled"Screening of Atrocarpusheterophyllus latex for its Anticoagulant property on Blood Plasma"was carried out by the following students at Biotechnology research center, Maharani Lakshmi Ammanni College for Women (MLACW) under my guidance during the period of February 2019 to June 2019.

- **Ms. Debika Chakrabarty Reg No: 1SG15BT006**
- **Ms. Disha D.B Reg No: 1SG15BT008**
- **Ms. Keerthana N Reg No: 1SG15BT016**
- **Ms. B. Varshini Reg No: 1SG15BT003**

Dr. Sushil Kumar Middha,
Assistant Professor,
Dept. of Biotechnology
mLAC

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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14/5, Hesarghatta Main Road,Chikkasandra, Jalahalli West, Bengaluru,Karnataka-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

This is to Certify that the Project Report entitled **"Biosensor based non-invasive blood typing using saliva"** carried out by **Ms. Bhagyalakshmi K S (1SG15BT004), Ms. Niharika N (1SG15BT018), Ms. Revathy H (1SG15BT025)** and **Ms. Srilekha K (1SG15BT031)** are the bonafide students of Eighth Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements with respect to Project work prescribed for the said Degree.

SAPTHAGIRI COLLEGE OF ENGINEERING BANGALORE-57

Mrs. Soumya C
(Assistant Professor)
Dept of Bio-Tech

13/06/19

Dr. Veena S More
Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
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Bangalore-57

Dr. K L Shivabasappa
(Principal)
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

Name and Signature of Examiners

1. Dr. Chandrashekhar Naik — 14/6/19
2. Prashanth Kumar. HP — 14/6/19

Principal
Sapthagiri College of Engineering
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Principal
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Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SIDDAGANGA INSTITUTE OF TECHNOLOGY
TUMAKURU – 572103

CERTIFICATE

This is to certify that Ms. Akshatha G, Ms. Disha Prabhu, Ms. Gouthami B L, and Ms. Pavithra K S, students of Sapthagiri College of Engineering, Bengaluru, have worked as project trainee in the short term project entitled "Preparation and Characterization of Carbon dots from organic source towards Theranostic applications", from 11th January to 20th May 2019 in the Bio INvENT Lab, Department of Chemical Engineering, Siddaganga Institute Of Technology, Tumakuru-572103 under my supervision. The work was done satisfactorily.

Dr. Sudhir H Ranganath

(Assistant Professor)

Dr. SUDHIR H. RANGANATH, Ph.D
ASSISTANT PROFESSOR
Department Of Chemical Engineering
Siddaganga Institute of Technology
B.H.Road, Tumakuru-572 103, Karnataka, India
Ph : 91-816-2214053, email : s

Principal
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Bangalore- 560 057

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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project report entitled **"Preparation and Characterization of Carbon dots from Organic source towards Theranostic applications"** carried out by **Ms. AKSHATHA G** (1SG15BT002), **Ms. DISHA PRABHU**(1SG15BT009), **Ms. GOUTHAMI BL**(1SG15BT010), **Ms. PAVITHRA KS** (1SG15BT019), a bonafide student of Eighth Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of Project report prescribed for the said Degree.

Name & Signature of Guide	Head of the Department	Name & Signature of Principal
Asst. Prof. Dept of Bio- Tech (Mrs. RAVYA M V)	Name & Signature of HOD Dept. of Bio Technology Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Main Road Bangalore -57 (Dr. VEENA S MORE)	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore- 560 057 (Dr. K. SHIVAKUMAR)

Name & signature of external examiner with date:

1. Dr. Chandrashekar Naik
2. Prashanth Kumar. HP

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560057

SIDDAGANGA INSTITUTE OF TECHNOLOGY

TUMAKURU – 572103

CERTIFICATE

This is to certify that **Mr. Karthik G, Ms. Ramyashree M B, Ms. Harshitha H C and Ms. Harshitha S A**, students of Sapthagiri College of Engineering, Bengaluru, have worked as project trainee in the short term project entitled "Preparation and Characterization of Fluorescent Dye loaded Liposomes for subsequent application on tear film", from 11th January to 20th May 2019 in the Bio INvENT Lab, Department of Chemical Engineering, Siddaganga Institute Of Technology, Tumakuru-572103 under my supervision. The work was done satisfactorily.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

(Dr. Sudhir H Ranganath)

Assistant Professor

Dr. SUDHIR H. RANGANATH, Ph.D
ASSISTANT PROFESSOR
Department Of Chemical Engineering
Siddaganga Institute of Technology
B.H.Road Tumakuru-572 103 Karnataka India

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To whomsoever it may concern

This is to certify that the project report entitled "MUTATION STUDIES OF RED FLUORESCENT PROTEIN IN GENETICALLY TRANSORMED *E. coli* HOST" submitted by **Mr. Abhishek E**, 4th year student of the department of Biotechnology, Sapthagiri college of Engineering is a record of bonafide project work under my guidance during the period of Jan 2019 - March 2019 for partial fulfilment of degree.

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14/5, Hesaraghatta Main Road BENGALURU-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project entitled, "MUTATION STUDIES OF RED FLUORESCENT PROTEIN IN GENETICALLY TRANSFORMED *E.coli* HOST" carried out by Mr. Abhishek E (1SG15BT001), Mr. Jagannath J (1SG15BT014), Ms. Kirana Shubhasri (1SG15BT017), Mr. R S Akash (1SG15BT023) and Ms. Amrutha U(1SG14BT006) are bonafide students of 8th Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belgavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

12/06/19

Mr. PRASHANTH KUMAR H P
Assistant professor,
Department of Biotechnology

13/06/19

Dr. VEENA S MORE
Head of the Department
Dept. of Biotechnology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore-57

14/6

Dr. K L SHIVABASAPPA
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

Name and Signature of External Examiners

Dr. H G Nagendra

Dr. Veena S. More

15/6/19

15/06/19

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the report entitled **"Preparation and Characterization of Fluorescent Dye Loaded Liposomes For Subsequent Applications On Tear Film"** carried out by **Ms. HARSHITHA H C (1SG15BT011), Ms. HARSHITHA S A (1SG15BT012), Mr. KARTHIK G (1SG15BT015)** and **Ms. RAMYASHREE M B (1SG15BT024)**, bonafide students of Eighth Semester, Department of Biotechnology, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.

13/06/2019

Name and Signature of the Guide and Head of the Department
Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
(Dr. Veena S More)
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore-57

14/6

Name and Signature of the Principal
(Dr. K L Shivabasappa)
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

Name and Signature of the Examiner with date:

1. Dr HG Nagendra
2. Dr. Veena S. More

15/6/19

15/06/19

i

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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SAPTHAGIRI College of Engineering Creating Tomorrow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project entitled **"Evaluation Pharmacological Activity of *Saraca asoca* and Preliminary Development of Adhesive Band-aid"** carried out by **Priyanka.P** USN **1SG15BT021, Shruthee Kannan** USN **1SG15BT028, Sushmitha R** USN **1SG15BT032, Usha S Ramu** USN **1SG15BT033** bonafide students of Eighth Semester, Sapthagiri College of Engineering in partial fulfillment for the award in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project report prescribed for the said degree.

Mrs.Shobha.G	**Dr.Veena S More**	**Dr. K.L Shivabasappa**
Assistant Professor	Head of the Department	Prinicpal,
Department of	Dept. of Bio -Technology	Sapthagiri College of
Biotechnology	Sapthagiri College of Engineering	Engineering
	Chikkasandra	Principal
	Hesaraghatta Main Road	Sapthagiri College of Engineeri
	Bangalore -57	Chikkasandra, Hesaraghatta Road
	Head of Department	Bangalore-560057
	Department of	
	Biotechnology	

Name and Signature of Examiner's:

1. Dr H G Nagendra
2. Dr. Veena S. More

SAPTHAGIRI COLLEGE OF ENGINEERING Dept of Bio Tech 15/6/19 BANAGLORE-57

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the report entitled "**Ecopaper- Paper production from flower waste**" carried out by "**Mr. PREM SAGAR**" USN "**1SG15BT020**", "**Ms. PRIYANKA R**" USN "**1SG15BT022**", "**Ms. VIBHA BHARDWAJ**" USN "**1SG15BT034**" and "**Ms. VINEETHA M**" USN "**1SG15BT035**", bonafide students of Eighth Semester, Department of Biotechnology, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belgavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Assessment have been incorporated in the Report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of 'Project' prescribed for the said degree.

12/6/2019

Name and Signature of the Guide
(Mr. Ananda H V)

12/06/19

Name and Signature of HOD
(Dr. Veena S More)

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore -57

SAPTHAGIRI COLLEGE OF ENGINEERING
Dept of Bio-Tech
BANAGLORE-57

12/6/19

Name and Signature of the Principal
(Dr. K L Shivabasappa)
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

Name and Signature of the Examiner with date:

1. Dr. Chandrashekar Naik
2. Prashanth Kumar HP

14/6/19

14/06/19

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALORE

CERTIFICATE

This is to certify that Ms. Priyanka P (1SG15BT021), Ms. Sirushee Kaman (1SG15BT028), Ms. Sushmitha R (1SG15BT032), Ms. Usha S Rama (1SG15BT033) students of SAPTHAGIRI COLLEGE OF ENGINEERING, Bangalore, Karnataka from Department of Biotechnology have carried out their project on " **Evaluation of pharmacological activity of *Saraca asoca* and preliminary Development of adhesive band-aid**" at Department of Horticulture University of Agricultural Sciences, GKVK, Bangalore, from March, 2019 to April 2019.

M Vasundhara

(Project guide)

Dr. V... M.D. (Hort)
Professor
Division of Horticulture
U.A.S. GKVK, Bangalore-560 065

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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14/5, Hesaraghatta Main Road, BENGALURU-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project entitled "*IN VITRO* ASSAY OF BACTERIAL ADHESION IN HUMAN INTESTINAL EPITHELIAL CACO-2 CELL LINE " presented by **SHWETHA.H** (1SG14BT032) and **SONALI KAMATH** (1SG14BT037), bonafide students of Eighth Semester, Sapthagiri Collegeof Engineering in partial fulfillment for the award of Bachelor of Engineering inBiotechnology of the Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.

Name & Signature of the External Guide
(Dr.Yogisha S)

Name &Signature of the Internal Guide
(Mrs. Blessy B Mathew)

11/6/18

Name &Signature of the Principal
(Dr. K L. Shivabasappa)

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

11/06/18

Name &Signature of the HOD
(Dr. Rohit K.C)

Head of the Department
Dept. of Bio -Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore -57

Name of the Examiners Signature

1. Dr. Rohit K.C
2. Dr. S.M.Gopinath.

Date 15/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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14/5, Hesaragatta Main Road, BENGALURU-560057

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College of Engineering
Creating Tommorow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project report entitled **"Extraction, Chemoprofiling and Pharmacological Activity of *Clausena Lansium* (Lour.) Skeels Essential Oil and Development of Oral Hygiene Product"** carried out by **Ms. SHRIPRABHA R UPADHYAYA,** USN **1SG14BT031, Ms. SINDHU K,** USN **1SG14BT034** and **Ms. VIBHA M,** USN **1SG14BT042** are bonafide students of eighth semester, Sapthagiri College Of Engineering in partial fulfilment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the reported deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

11/06/18

Dr. ROHIT K C
(HOD and Guide)
Head of the Department
Dept. of Bio -Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore -57

21/6/18

Dr. SHIVABASAPPA K L
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

Name and Signature of Examiner

1. Dr. ROHIT K.C
2. Dr. S.M. Chandrashekar

21/6/18

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14/5, Hesaragatta Main Road, BENGALURU-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project report entitled **"In-vitro Anti-cancer and Anti-diabetic activity of ethanolic Chamomile extract on Mammalian Cancer cell lines"** carried out by **Mr. A. RITISH**, USN **1SG14BT001**, **Mr. MANISH KUMAR M**, USN **1SG14BT021**, **Mr. MEERAN HUSSAIN**, USN **1SG14BT022** and **Mr. VIKERAMAN S**, USN **1SG14BT044** are bonafide students of eighth semester, Sapthagiri College Of Engineering in partial fulfilment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the reported deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

11/6/18

Dr. ROHIT K C

(Internal Guide)
Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore-57

11/6/18

Dr. K L SHIVABASAPPA
Principal
(Principal)
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

External VIVA VOICE

Examiners **Signature**

1 Dr. Gopinath

2 Dr. ROHIT KC

14/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,

SAPTHAGIRI COLLEGE OF ENGINEERING

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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project report entitled **"Effect of Copper Nanoparticles on Tomato plant"** carried out by **Ms. NIRANJANA S (1SG14BT027), Mr. SAYEED AHMED KHAN (1SG12BT022)** and **Mr. AKSHAY KUMAR (1SG13BT042)** are bonafide students of eighth semester, **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering in Biotechnology** of the **Visvesvaraya Technological University**, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the reported deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Name and Signature of the Internal Guide
(Mrs. Shobha G) 13/6/18

Name and Signature of Project coordinator
(Mr. Prashanth Kumar H.P.) 13/06/18

13/6/18

Name and Signature of HOD
(Dr. Rohit K.C)

Head of the Department
Dept. of Biotechnology
Sapthagiri College of Engineering
No. 14/5, Chikkasandra
Hesaraghatta Main Road
Bangalore-57

Name and Signature of Principal
(Dr. K L Shivabasappa)

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

External Viva:
Name and signature of examiners:

1. Dr. ROHIT K.C
2. Mr. S.M. Gowrish

15/6/18

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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14/5, Hesaragatta Main Road, BENGALURU-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project report entitled **"Physiological and Molecular characterization of *Helminthosporium species* infecting *Zea mays*"** carried out by **Mr. NAVEEN S,** USN **1SG14BT026** and **Ms. VEENA G V,** USN **1SG14BT041** are bonafide students of eighth semester, Sapthagiri College Of Engineering in partial fulfilment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the reported deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of Internal Guide | Signature of HOD | Signature of Principal

External examiner

Name of Examiners	Signature with date
1 Dr. ROHIT KC	14/6/18
2 Dr. S M. GOPINATH	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project entitled "***Areca Catechu* crude extract induced cell cycle arrest in G2/M phase in breast cancer cell line MCF-7"** presented by **AMIR KHAN** (1SG14BT004) and **MOHIT KUMAR SINGH** (1SG14BT025), bonafide students of Eighth Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project prescribed for the said degree.

Name & Signature of the External Guide
(Dr.Yogisha S)

Name &Signature of the Internal Guide
(Mrs. Blessy B Mathew)

11/6/18

Name &Signature of the Principal
(Dr. K L Shivabasappa)
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

14/6/18

Name &Signature of the HOD
(Dr. Rohit K.C)
Head of the Department
Dept. of Bio -Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
Hesaraghatta Main Road
Bangalore -57

Name of the Examiners Signature **Date**

1. Dr. ROHIT K.C
2. Dr. S.M. Chandrappa

14/6/18

Principal
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Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

This is to Certify that the Project entitled **"Molecular Characterization and Genotyping of Marigold (*Tagetes spp*) Germplasm Lines using Simple Sequence Repeat (SSR) Markers"** Is a bonafide work carried out by **Ms. Vidya G V (1SG14BT043), Ms. Hindushree J (1SG14BT017)** and **Ms. Meghana M (1SG14BT024)** In partial fulfilment of eight semester for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Internal Guide

Signature of HOD

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra
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Bangalore-560 057

Signature of Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

Name/s of Student/s **Ms. Meghana M (1SG14BT024)**
Ms. Vidya G V (1SG14BT043)
Ms. Hindushree J (1SG14BT017)

External examiner:

Name of Examiner:

1. Dr. ROHITKC
2. Dr. S.M. Gopinath

Signature with date: 15/6/18

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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CHIKKASANDRA, HESARAGHATTA MAIN ROAD, BANGALORE-560057

SAPTHAGIRI
College of Engineering
Creating Tomorrow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project entitled **"Protective Effects of *Morus indica* in the Brain of CCl_4-induced Oxidative Stress in Experimental Rats"** carried out by **Ms. AASTHA KAMBOJ (USN: 1SG14BT002)** and **Ms. CHANDANA P (USN: 1SG14BT013)**, the bonafide students of Eighth semester, Sapthagiri College Of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum, during the academic year **2017-2018**.

14/6/18

Signature of Guide
(Prof. Prashanth Kumar H P)

14/6/18

Signature of HOD
(Dr. Rohit K.C.)

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
N... Chikkasandra
H... alta Main Road
...galore-57

14/6/18

Signature of Principal
(Dr. K. L. Shivabasappa)

Dr. S.M. Clothiah

Dr. Rohit K.C 14/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project report entitled **"Invitro genotoxicity of copper nanoparticles on cancer & non-cancer cell lines"** carried out by **Ms. AYANA E K, USN 1SG14BT012, Ms. DHEESHMA BS, USN 1SG14BT015** and **Ms. VANI VISHWANATHAN, USN 1SG14BT039** are bonafide students of eighth semester, **Sapthagiri College Of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in **Biotechnology** of the **Visvesvaraya Technological University**, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the reported deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Name and Signature of the Internal Guide
(Mrs. Shobha G)

Name and Signature of Project coordinator
(Mr. Prashanth Kumar H P)

Name and Signature of HOD
(Dr. Rohit KC)

Name and Signature of Principal
(Dr. K L Shivabasappa)
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

External Viva:

Name and signature of examiners:

1. DR. ROHIT K.C
2. DR. S.M. HOSMATH

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

STELLIXIR

CERTIFICATE

19-05-2018

This is to certify that the Project work entitled **"In-vitro Genotoxicity of Copper Nano Particles on Cancerous and Non Cancerous Cell lines"** has been carried out by **Ms. Ayana E K (USN No.1SG14BT012), Ms. Dheeshma B S (USN No. 1SG14BT015) and Ms. Vani Vishwanathan (USN No. 1SG14BT039)**, bonafide students of **Sapthagiri College of Engineering** in partial fulfillment for the award of **Bachelor of Engineering in Biotechnology** of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. Further, it is certified that they have completed the Project Work satisfactorily.

Under the Guidance of

For STELLIXIR BIOTECH PVT. LTD

Shiva shankar Reddy G

Authorised Signatory

Mr. Shiva Shankar Reddy G
Research Coordinator

Head of the Organization

For STELLIXIR BIOTECH PVT. LTD.

Managing Director

Mr. Janardhana P B,
Founder and CEO

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SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

CERTIFICATE

Certified that the project work entitled "**Molecular characterization of *Wolbachia* in Indian honeybee species**" carried out by ANITHA M (1SG14BT007), ASHA PRANAVI M (1SG14BT010) and SHIVANI V SHANES (1SG13BT047) is a bonafide student of Eighth Semester, Department of Biotechnology, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2017-2018. It is certified that all corrections suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Name of the guides:

1. Mr. Ananda H V

2. Dr. Ravi Kumar H

Signature of the guides:

1. A.H.V

2. R.K.H

11/6/18

Signature of the HOD

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11/6/18

Signature of Principal

Principal
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Bangalore-560 057.

External VivaVoce

Name of the examiners:

1. Dr. Gowri K.C

2. Dr. S M. Chopkar

15/6/18

Signature of the examiner

1.

2.

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BANGALORE UNIVERSITY

Department of Studies in Life Science

J.B. Campus, Bengaluru 560 056

H. Ravi Kumar M.Sc., M.Phil., Ph.D
stant Professor, PGD in CEART

Phone: (Off) : +91-80-22961525/1923
Mobile: +91-9740012999
Email: ravikumarh79@gamil.com

DATE: 30/06/2018

CERTIFICATE

This is to certify that the dissertation entitled "**Molecular characterization of *Wolbachia* in Indian Honeybee species**" submitted by ANITHA M (1SG14BT007), ASHA PRANAVI M (1SG14BT010), SHIVANI V SHANES (1SG13BT047), in partial fulfilment of degree of Bachelor of Engineering in Biotechnology in Sapthagiri College of Engineering, affiliated to Visvesvaraya Technological University, Belgaum, a bonafide record of research training undergone by them in the *Wolbachia* Research Laboratory in Life Science Department, Bangalore University, Bangalore, under my guidance and supervision. No part of this work shall be reproduced in any form without my written permission.

Any assistance received during the course of this investigation has duly been acknowledged.

Dr Ravi Kumar H

Dr. H. RAVI KUMAR M.Sc., M.Phil., Ph.D.
Assistant Professor, PGD in CEART
Dept. of Studies in Life Science
Bangalore University
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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project report entitled **"Phytochemical screening, Characterization, Anti-bacterial Evaluation and Product Development of *Clausena Lansium* (Lour.) Skeels Leaf Extract"** carried out by **Ms. AKSHATHA J**, USN **1SG14BT003**, **Ms. SNEHA**, USN **1SG14BT035** and **Ms. YAMINI S ACHARYA**, USN **1SG14BT045** are bonafide students of eighth semester, Sapthagiri College Of Engineering in partial fulfilment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the reported deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Dr. ROHIT K C
Head of the Department
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Hesaraghatta Main Road
Bangalore-57

11/6/18

Dr. SHIVABASAPPA K L
Principal
(Principal)
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

Name and Signature of the Examiners

(1) Dr. Rohit K.C

(2) Dr. S.M. Gopinath

11/6/18

Principal
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Bangalore- 560 057

UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALORE

CERTIFICATE

This is to certify that Ms. Akshatha J (1SG14BT003), Ms. Sneha (1SG14BT035) and Ms. Yamini S Acharya (1SG14BT045) students of SAPTHAGIRI COLLEGE OF ENGINEERING, Bangalore, and Karnataka from Department of Biotechnology have carried out their **"Phytochemical Screening, Characterization, Anti-Bacterial Evaluation and Product Development of *Clausena Lansium* (Lour.) Skeels Leaf Extract"** at Department of Horticulture, University of Agriculture Sciences, GKVK, Bangalore, from February, 2018 to March, 2018.

Professor & Head
Department of Horticulture
University of Agricultural Sciences
GKVK, BANGALORE- 65

Project Guide

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

Affiliated to Visvesvaraya Technological University, Belagavi, Approved by AICTE, New Delhi,

Chikkasandra, Hesaraghatta Main Road Bangalore-560057
Department of BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled **"ISOLATION AND CHARACTERIZATION OF DYE DEGRADING BACTERIAL STRAINS FROM TEXTILE INDUSTRY WASTEWATER"** carried out by Mr./Ms. Lavanya.S, Pavithraveni.R, S.D.Siri, Sharon Naina Ravishankar USN 1SG13BT015, 1SG13BT023, 1SG13BT030, 1SG13BT032 , are bonafide students of **Eighth Semester, Sapthagiri College of Engineering** in partial fulfillment for the award of **Bachelor of Engineering / Bachelor of Technology** in **Biotechnology** of the Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide

Dr. Ananda.S

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore -57

Signature of Principal

Dr. Aswatha Kumar. M
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Name of the examiners
1.
2.

External examiners

Signature with date

Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

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SAPTHAGIRI
College of Engineering
Creating Tomorrow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled **"COMPREHENSIVE STUDY OF ANTI-INFLAMMATORY PROPERTIES OF MYRICETIN EXTRACTED FROM INDIAN ORIGIN MYRICA SPECIES"** presented by ***Mr. Akash R, (USN 1SG13BT004), Mr. Lijin K Litson, (USN 1SG13BT016), Mr. Praveen Kumar L, (USN 1SG13BT025) and Mr. Shivaraj V, (USN 1SG13BT034),*** the bonafide students of Eight Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2016-2017.

Signature of Project guide

(Prof Prashanth Kumar .HP)

Signature of HOD
Head of the Department
Dept. of Bio-Technology
(Dr. Ananda S)
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

Signature of Principal
Dr. Ashwatha Kumar. M
Principal
Sapthagiri College of Engineering
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Hesaraghatta Main Road,
Bangalore-560 057

External Viva-Voce

Name of Examiners	Signature of Examiners
1. Dr Ananda S	
2. Dr. Chandrashekar naik	

27/6/17

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project entitled **"ASSESSMENT OF PETROLEUM DERIVATIVES DEGRADATION BY *Aspergillus niger*"** was carried out by **SAGAR S (1SG13BT061), CHETAN S (1SG13BT007), AJAY KUMAR YADAV (1SG13BT0XX)**, bonafide students of Eighth Semester, Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belagavi during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of prescribed Degree.

Name & Signature of the Guide
(Mrs. Soumya C)

Name & Signature of the HOD
(Dr. Ananda S)

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

Name and signature of the Examiners with date

1. Dr Ananda S
2. Dr. Chandrashekar Naik

Name & Signature of the Principal
(Dr. Aswatha Kumar M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

Principal
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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled **"UNREAVELING OF STANDARDISED PROTOCOL FOR THE DEVELOPMENT OF *DENDROBIUM FIMBRIATRUM* THROUGH HYDROPONICS- A NEW AND NOVEL APPROACH"** carried out by **BHARGAVI DUBAY J (1SG13BT006), YASHASHWINI S (1SG13BT041), LAVANYA M N (1SG13BT044), RUCHITHA N KUMAR (1SG13BT045)** bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering in Biotechnology** of the **VisvesvarayaTechnological University, Belgaum** during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect Project work prescribed for the said Degree.

Name of the guides

Dr. ROHIT KC

Mr. ROHITH RAJ

Signature of the guides

Signature of the HOD
Head of the Department
DR.ANANDA S
Dept. of Bio-Technology
Sapthagiri College of Engineering
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Signature of Principal
Dr.ASWATH KUMAR M
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
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Bangalore-560057

External Examiner

Name of Examiner

1. Dr. Chandrashekhar Naik

2. Dr. Ananda S

Signature of Examiner

27/6

23

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SAPTHAGIRI
College of Engineering
Creating Tommorow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled "**STUDY OF CALORIFIC VALUE OF THE AGRICULTURE WASTE AND FOREST RESIDUES**" carried out by Ms. PREETHI M [USN 1SG13BT026], Ms. VIJITHA THEKKEPAT [1SG13BT040], Ms. SUPRIYA MORE [1SG13BT038], Ms. AAYUSHI MISHRA [1SG13BT001] are bonafide students of eighth Semester, Department of biotechnology, Sapthagiri college of engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Name of the guides:

1. Mrs. Saranya. D
2. Mr. R. Ezhumalai

Signature of the guides:

1. Saranya. D
2. R. Ezhumalai

आर. एलुमलै / R. Ezhumalai
वैज्ञानिक–बी / Scientist-B

Signature of the Head of the Department

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra.
Hesaraghatta Main Road,
Bangalore -57

Signature of Principal

External VivaVoce

Name of the examiners:

1. Dr Ananda
2. Dr. Chandrashekhar Inamdar

Signature of the examiners

1. Ananda 28/6/17
2. 28/6/17

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
College of Engineering
Creating Tommorow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the seminar entitled "**BIO-DETOXIFICATION OF CHROMIUM IN INDUSTRIAL EFFLUENTS BY USING FUNGAL STRAINS**" carried out by Mr.Mohan Kumar N (USN 1SG13BT018) and Mr.Pareekshith J (USN 1SG13BT022) a bona fide student of 8th Semester, Department of Bio-technology, Sapthagiri College of Engineering in partial fulfilment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Project Report has been approved as it satisfies the academic requirements in respect to the Project prescribed for the said Degree.

23/06/2017

Mr Ananda H V
Assistant Professor

Dr Ananda S
Head of Department

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra.
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Dr Aswatha Kumar M
Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name & Signature of External Guide

1. Dr. Ananda S
2. Dr Chandrashekhar Naik

Signature

28/6/17

28/6/17

Principal
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Chikkasandra, Hesaraghatta Main Road Bangalore-560057
Department of BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled **"ISOLATION AND CHARACTERIZATION OF DYE DEGRADING BACTERIAL STRAINS FROM TEXTILE INDUSTRY WASTEWATER"** carried out by Mr./Ms. Lavanya.S, Pavithraveni.R, S.D.Siri, Sharon Naina Ravishankar USN 1SG13BT015, 1SG13BT023, 1SG13BT030, 1SG13BT032 , are bonafide students of **Eighth Semester, Sapthagiri College of Engineering** in partial fulfillment for the award of **Bachelor of Engineering / Bachelor of Technology** in **Biotechnology** of the Visvesvaraya Technological University, Belagavi during the year **2016-2017**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide

Dr. Ananda.S

Head of the Dept.
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No. 14/5, Chikkasandra,
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Bangalore -57

External examiners

Signature of Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the examiners

1.

2.

Signature with date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi)
14/5, Hesaraghatta Main Road, Bangalore-560057.
2016-17

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled "***DEVELOPMENT OF RESIN FROM LIQUEFIED WOOD BY SOLVOLYSIS AND ITS APPLICATION***" carried out by **JAI KARTHIK J (1SG13BT013), MADHURI BHAT S (1SG13BT017), RAKSHITHA H S (1SG13BT029), VARSHA PRAKASH (1SG13BT039)** are bonafide students of 8th Semester, Department of Biotechnology, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belagavi during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Name & Signature of the Guide
(Asst Prof Shobha G) 26/6/17

Name & Signature of the HOD
(Dr. Ananda S)
Head of the Department
Dept. of Bio - Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

External Viva

Name & Signature of the examiners with date

1. Dr Ananda S
2. Dr. Chandrashekhar Naik

Name &Signature of the Principal
(Dr. Aswatha Kumar M)
Dr. Aswatha Kumar, M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
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14/5, Hesaraghatta Main Road, Bangalore-560057.
2016-17

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled "***DEVELOPMENT OF RESIN FROM LIQUEFIED WOOD BY SOLVOLYSIS AND ITS APPLICATION***" carried out by **JAI KARTHIK J (1SG13BT013), MADHURI BHAT S (1SG13BT017), RAKSHITHA H S (1SG13BT029), VARSHA PRAKASH (1SG13BT039)** are bonafide students of 8th Semester, Department of Biotechnology, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belagavi during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Name & Signature of the Guide
(Asst Prof Shobha G) 26/6/17

Name & Signature of the HOD
(Dr. Ananda S)
Head of the Department
Dept. of Bio - Technology
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

External Viva

Name & Signature of the examiners with date

1. Dr Ananda S
2. Dr. Chandrashekhar Naik

Name &Signature of the Principal
(Dr. Aswatha Kumar M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled " ***In vitro* micropropagation : A robust tool for significant production of *Anthurium andreanum*"** carried out by **DIVYA C (1SG13BT010), GOWTHAMI K V (1SG13BT012), SPOORTHY N (1SG13BT029)** and **SOUNDARYASRI S (1SG13BT036)** are bonafide students of **VIII semester, Sapthagiri college of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Biotechnology** of the **Visvesvaraya Technological University**, Belgaum during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report. The report has been approved as it satisfies the academic requirements of the project work prescribed for the said Degree.

Signature of the Guide

Dr. Rohit K C

Signature of HOD

(Dr. Anand S)

Head of the Department
Dept. of Bio - Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra.
Hesaraghatta Main Road,
Bangalore -57

Signature of Principal

(Dr. Aswatha Kumar M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva-Voce

Name of Examiners **Signature of Examiners**

1. Dr. Chandrashekhar Naik
2. Dr. Ananda S

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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14/5, Hesaraghatta Main Road, BENGALURU-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project entitled "BIOACCUMULATION OF LEAD IN *Drosophila melanogaster* TO STUDY CHROMOSOMAL ABERRATIONS" was carried out by **DEEPTI** (1SG13BT008), **MUZZAMMIL AHMED** (1SG13BT019), **POOJA SINGH** (1SG13BT024) and **SUBHASH KUMAR SHARMA** (1SG13BT037); bonafide students of Eighth Semester, Sapthagiri Collegeof Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belagavi during the academic year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of prescribed Degree.

Name & Signature of the Guide
(Mrs. BLESSY BABY MATHEW)

Name & Signature of the HOD
(Dr. Ananda S)

Head of the Department
Dept. of Bio - Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

Name of the Examiners Signature with date

Dr. Chandrashekhar Dale
D. Ananda
22/6/17

Name & Signature of the Principal
(Dr. Aswatha Kumar M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Main Road,
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SAPTHAGIRI
College of Engineering
Creating Tomorrow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled **"COMPREHENSIVE STUDY OF ANTI-INFLAMMATORY PROPERTIES OF MYRICETIN EXTRACTED FROM INDIAN ORIGIN MYRICA SPECIES"** presented by ***Mr. Akash R, (USN 1SG13BT004), Mr. Lijin K Litson, (USN 1SG13BT016), Mr. Praveen Kumar L, (USN 1SG13BT023) and Mr. Shivaraj V, (USN 1SG13BT034),*** the bonafide students of Eight Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2016-2017.

Signature of Project guide

(Prof Prashanth Kumar .HP)

Signature of HOD
Head of the Department
Dept. of Bio-Technology
(Dr. Ananda S)
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
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Bangalore -57

Signature of Principal
Dr. Krishnamurthy Prabhat, M
Principal
Sapthagiri College of Engineering
14/5 Dr Aswatha Kumar M,
Hesaraghatta Main Road,
Bangalore-560 057

External Viva-Voce

Name of Examiners	Signature of Examiners
1. Dr Ananda S	
2. Dr. Chandrashekar naik	

27/6/17

Principal
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Bangalore-560 057

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DEPARTMENT OF BIOTECHNOLOGY
SAPTHAGIRI COLLEGE OF ENGINEERING
BANGALORE -57

CERTIFICATE

Certified that the project entitled **Identification of deleterious SNPs in VHL gene and their effects at structural level** is a bona fide work carried out by **Ashwini N** (1SG13BT005), **Krutika Shetty** (1SG13BT014), **Shivangi Dubey** (1SG13BT033) and **Kusuma B M** (1SG13BT043), in partial fulfilment for the award of **Bachelor of Engineering** in **Department of Biotechnology, Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belgaum** during the acedamic year 2016-17. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in department library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the Bachelor of Engineering degree.

Mrs. BLESSY B MATHEW
Project Guide & Assistant Professor, SCE

Dr. ANANDA S
Professor & HOD, SCE
Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
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Dr. ASWATHA KUMAR M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the Examiners:

Dr. Ananda S

Dr. Chandrashekhar Kunte

Signature with Date:

Ananda S 28/6

28/6/17

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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled ***Eco-friendly dyeing of cotton fabrics with Aqueous extract of Thespesia populnea fruit using mordant and to study its fastness properties and color strength*** carried out by **Subhadra E (1SG12BT024) , Vinitha N (1SG12BT030), Usha Rani S D (1SG12BT028), Bhavana R Chawan (1SG10BT008)** are bonafide students of Eight Semester, Sapthagiri college of engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Name & Signature of the Guide
(Prof Shobha G) 19/5/16

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

Name Signature of the HOD
(Dr, Ananda S)

External Viva

Name of the examiners Signature with date

1. Dr. Rajesh Gopal 10/6/16
2. Dr. ROHIT K.C 10/6/16

Name Signature of the Principal
(Dr. Aswatha Kumar M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
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SAPTHAGIRI
College of Engineering
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DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project Report entitled *"Protective role of Indian medicinal herbs against Oxidative stress in Hyperglycemic animals"* carried out by Mr.Prateek.N(USN 1SG09BT050), Ms. CLR. Sneha(USN 1SG11BT005), Ms.Deepthi.S.Keni(USN 1SG11BT007) and Ms.Ranjana.S(USN 1SG11BT017) are bonafide students of Eight Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Name and signature of the guide
(Prof.Sowmya.C)

Name and signature of HOD
(Dr. Ananda S)

Head of Department
Dept. of Bio. Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra.
Hesaraghatta Main Road,
Bangalore -57

Name and Signature of the Examiners

1.

2.

Name and signature of the principle
(Dr.Aswatha Kumar. M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

Department of Biotechnology

CERTIFICATE

This is to certify that the project work entitled "Physiological studies and molecular characterization studies of *Asperisporium caricae* pathovares on papaya plant in Karnataka" done by BHOOMIKA.S.KUMAR (1SG12BT006), SUSHMITHA.S (1SG12BT026), SWATHI.B.M (1SG12BT027), VAISHALY.A.G (1SG12BT029) are bonafide students of VIII semester, Department of Biotechnology in partial fulfillment of Engineering at Sapthagiri College of Engineering affiliated to Visvesvaraya Technological University, Belgaum during year 2015-2016.

The project work has been approved as it satisfies the academic requirements of the project work prescribed for the said Degree.

20/5/16

Signature of the Guide

(Mrs. Soumya.C)

Signature of HOD

Head of the Department
Department of Biotechnology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

(Dr. Ananda. S)

Signature of Principal

Dr. (Dr. Ashwatha Kumar)
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva-Voce

Name of Examiners	Signature of Examiners
1. Dr. Rajesh Singh	18/6/16
2. DR. PATIT KC	18/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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SAPTHAGIRI
College of Engineering
Creating Tommorow

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the Project Report entitled "**Studies on the Chemical Composition and *In-vitro* Evaluation of Pharmacological Activity of *Laurus nobilis* L. and *Melaleuca quinquenervia* (Cav.) S.T.Blake Essential Oils**" carried out by **Ms. NETHRAVATHI. M. USN 1SG12BT016** and **Ms. DIVYA. K. H, USN 1SG12BT009** are bonafide students of Eight Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Dr. Ananda. S
(Guide and HOD)
Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra.
Hesaraghatta Main Road,
Bangalore -57

Dr. Aswatha Kumar
(Principal)
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name and Signature of the Examiners

1. 10/6/16
2. 10/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Biotechnology

CERTIFICATE

This is to certify that the project work entitled "**INHIBITORY EFFECTS ON CELL PROLIFERATION AND INDUCTION OF CELL CYCLE ARREST IN LUNG CANCER A549 AND CALU6 CELLS BY EXTRACT OF FLAVONOID RICH PLANTS**" done by **DISHA PADMANABHA (1SG12BT008) AND RESHMA B V (1SG12BT021)** are bonafide students of VIII semester, Department of Biotechnology in partial fulfillment of Engineering at Sapthagiri College of Engineering affiliated to Visvesvaraya Technological University, Belgaum during year 2015-2016.

The project work has been approved as it satisfies the academic requirements of the project work prescribed for the said Degree.

21/5/16

Signature of the Guide

(Dr Rohit K C)

Signature of HOD

(Dr. Ananda. S)

Head of the Department
Biotechnology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

Signature of Principal

(Dr. Ashwatha Kumar)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva-Voce

Name of Examiners

1. Dr. Rajesh Singh
2. DR. ROHIT K C

Signature of the examiners

1/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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14/5, Hesaraghatta Main Road
BENGALURU-560057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

Certified that the project work entitled **"EVALUATION OF ANTIOXIDATIVE AND ANTI- INFLAMMATORY ACTIVITIES OF QUERCETIN – AN ANIMAL MODEL APPROACH"** carried out by **Amitha C V (1SG12BT003) , Anvitha V (1SG12BT005), Shruthi G S (1SG12BT023), Sushmitha M B (1SG10BT025)** are bonafide students of Eight Semester, Sapthagiri college of engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. Vijay Kishore
Signature of guide

Dr.Ananda.S
signature of HOD

Dr. Aswaths Kumar
Signature of Principal

Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

NAME OF THE EXAMINERS	NAME SIGNATURE WITH DATE
1. Mr. RAVENDRA SINGH	10/6/16
2. Mr. ROHIT KC	6/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Main Road
Bangalore-560 057

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14/5, Hesaraghatta Main Road, BENGALURU-560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

DEPARTMENT OFBIOTECHNOLOGY

CERTIFICATE

Certified that the Project entitled **"Evaluation of Antidiabetic Activity of a Methanolic Extract of *Picrorhiza kurroa* by NBDG method using Flow-cytometry"** presented by **Aishwarya Vijayakumar (1SG12BT002), Nanditha R (1SG12BT014) and Pooja V Suvarna (1SG12BT018),** bonafide students of Eight Semester, Sapthagiri College of Engineering in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the academic year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. TheProject report has been approved as it satisfies the academic requirements in respect of Project prescribed for the said Degree.

Name & Signature of the Guide
(Prof. Prashanth Kumar H P)

Name & Signature of the HOD
(Dr. Ananda S)

Head of the Department
Dept. of Bio - Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-57

Name of the Examiners Signature with date

1. Dr. Rajesh Sagar 10/6/16
2. Dr. ROHIT K.C 10/6/16

Name& Signature of the Principal
(Dr. Aswatha Kumar M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

Sapthagiri College of Engineering
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#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057

SAPTHAGIRI
College of Engineering

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

This is to certified that the project work entitled **"Fungal Manganese Peroxidase for Biodegradation of Paper and Pulp Effluent"** has been carried out by **Ms Rohini. S (1SG11BT019), Ms Priyanka. P. Ullal (1SG11BT016) and Ms Veda. G (1SG11BT027)** are bonafide students of VIII semester B.E in Biotechnology of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide: Mrs Sowmya C

Guide: Mrs Shobha G

Signature of the HOD

Head of the Department
Dept. of Bio - Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra.
Hesaraghatta Main Road,
Bangalore -57

Dr Ananda S
Professor & Head

Signature of the Principal

Dr. Aswatha Kumar M
Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners

Dr. S.M. Gopinath

Signature with date

11/6/15

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

CHIKKASANDRA, HESARAGHA...

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5 CHIKKASANDRA, HESARAGHATTA MAIN ROAD, BENGALURU-560 057

Department of Biotechnology

CERTIFICATE

This is to certify that the Project Work entitled **"An Approach For The Optimised Production Of Cellulolytic Enzyme From *Aspergillus* Species By Submerged Fermentation Using Ragi Straw As A Substrate"** carried out by Namratha J.V (1SG11BT014), Manasa S (1SG11BT013) and Ratna V.R (1SG10BT032) are bonified students of VIII semester, Department of Biotechnology in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering, affiliated to Visvesvaraya Technological University, Belagavi during the academic year 2014-2015. It is certified that all corrections / suggestion's indicated for internal assessment have been incorporated in the report submitted to department library. This Project report has been approved as it satisfies *in lieu* with the academic requirements in respect of project work prescribed by Bachelor of Engineering degree.

Dr. Shobha G. (Guide) | Mr. Vijay Kishore (Co guide) | Dr. Ananda S. Head of the Department (HOD) | Dr. Aswatha Kumar.M (Principal)

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
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Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore -560 057.

External Viva-Voce

Name of Examiners	**Signature with Date**
Dr. S.N. Gopinath	
Dr. Rajesh K.C	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5 CHIKKASANDRA, HESARAGHATTA MAIN ROAD, BENGALURU-560 057

Department of Biotechnology

CERTIFICATE

This is to certify that the Project Work entitled **"Optimization, Purification and Characterization of Xylanase: Xylanolytic Fungi Using Wheat Straw via Submerged Fermentation"** carried out by Gajendra Prasad J (1SG11BT011), Sangam L (1SG10BT019) and Thosif (1SG11BT025) are bonified students of VIII semester, Department of Biotechnology in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering, affiliated to Visvesvaraya Technological University, Belagavi during the academic year 2014-2015. It is certified that all corrections / suggestion's indicated for internal assessment have been incorporated in the report submitted to department library. This Project report has been approved as it satisfies *in lieu* with the academic requirements in respect of project work prescribed by Bachelor of Engineering degree.

Mr. Vijay Kishore	Ms. Vinutha Moses	Dr. Ananda S	Dr. Aswatha Kumar.M
(Guide)	(Co guide)	(HOD)	(Principal)

Head of the Department
Dept. of Bio-Technology
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Dr. Aswatha Kumar. M
Principal
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External Viva-Voce

Name of Examiners	Signature with Date
Dr. S.M. Gopinath	14/6/15

Principal
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(14, Chikkasandra, Hesarghatta Main Road, Bangalore -57

Department of Biotechnology

Certificate

Certified that the Project Work entitled "***Drosophila melanogaster as a model organism to study heavy metal toxicity***" is a bonafide work carried out by **Divya sree.D (1SG11BT009), Himani Singh (1SG11BT012), Rashmi (1SG11BT018)** and **Swati Jha (1SG11BT023)** in partial fulfillment for the award of the Degree of Bachelor of Engineering in Biotechnology of the Visvesvaraya Technological University, Belgaum during the year **2014-2015.** It is certified that all the corrections/suggestions indicated for external assessment have been incorporated in the report deposited in the departmental library. The Project Report has been approved as it satisfies the academic requirements in respect of Project Work prescribed for the said degree.

Signature of Guide
[Blessy B Mathew] [Dr. Rohit K...]

Signature of HOD
[Dr. Ananda S]

Head of the Department
Department of Biotechnology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

Signature of Principal
[Dr. Ashwatha Kumar M]

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 57/1, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Sl. No	Name of Examiners	Signature with Date
1.	Dr Naik	10/6/15
2.	Dr. Ananda S	10.6.15

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore -560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057

SAPTHAGIRI
College of Engineering

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

This is to certified that the project work entitled **"Synthsesis of Bioresin from Agro and Organic Waste"** has been carried out by **Ms.D.Kaarthika (1SG11BT006), Ms Shruthi. N(1SG11BT021) and Ms Vidya A.C (1SG11BT028)** are bonafide students of VIII semester B.E in Biotechnology of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide

Mrs. Vinutha Moses

Assistant Professor

Signature of the HOD

Dr Ananda S

Professor & Head

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 14/5, Chikkasandra.
Hesaraghatta Main Road,
Bangalore -57

Signature of the Principal

Dr. Aswatha Kumar M

Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners

1. .....

2. Anandas

Signature with date

1. ..... 10/6/15

2. 10.6.15

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

DEPARTMENT OF BIOTECHNOLOGY

Certificate

This is to certify that the project work entitled **"EFFICACY OF *Curcuma amada* ON ACUTE LEUKEMIA CELL LINES"** has been carried out by **BISWAJIT MOHAPATRA (1SG11BT004), VAISHNAVI JOSHI (1SG11BT026), GOWTHAMI. S (1SG10BT014), SHALINI. V R (1SG10BT035),** is bonafide student of VIII semester B.E in Biotechnology of Sapthagiri College Of Engineering in partial fulfillment for the award of Bachelor Of Engineering In Biotechnology of Visvesvaraya Technological University, Belagavi during the year 2014-2015. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of Guides

Dr. Ananda. S

Professor & Head, SCE

Signature of H.O.D

Head of the Department
Dept. of Bio-Technology
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -57

Dr. Ananda. S
Professor & Head, SCE

Signature of Principal

Dr. Aswatha Kumar M

Principal, SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Co- guide

Mrs. Blessy B. Mathew

Assistant Professor, SCE

Name of examiners:

1) .....

2) Dr. Ananda S

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Main Road,
Bangalore- 560 057

signature with date

.....

.....10.6.15.....

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Biotechnology

Certificate

Certified that the project work entitled "*IN-VITRO* EVALUATION OF ANTI-CANCER ACTIVITY FOR SELECTED MEDICINAL PLANTS ON BREAST CANCER CELL LINES (MDA-MB 231)" carried out by Ms Arpitha R(1SG11BT003), Ms Gagana V(1SG11BT010) and Ms Swarna(1SG11BT022) bonafide students of this institute, in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Head of the Department	Signature of the Principal
Dr. Rohit KC	Dr Ananda S	Dr. Aswatha Kumar. M
Assistant Professor	Professor & Head	Principal

Dept. of Bio -Technology
Sapthagiri College of Engineering
No. 57/1, Chikkasandra.
Hesaraghatta Main Road,
Bangalore-560 057

Dr. Aswatha Kumar M
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057.

Name of the Examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

This is to certified that the project work entitled **"Oil waste water treatment using Bacillus species"** has been carried out by **Ms. Apoorva.R (1SG11BT002), Ms. Disha.B.A (1SG11BT002)** are bonafide students of VIII semester B.E in Biotechnology of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide: Mrs Sowmya C

Guide: Mrs Saranya D

Signature of the HOD

Head of the Department
Dept. of Bio -Technology
Sapthagiri College of Engineering
No.14/5, Chikkasandra.
Hesaraghatta Main Road,
Bangalore -57

Dr Ananda S

Professor & Head

Signature of the Principal

Dr. Aswatha Kumar M

Principal

Dr. Aswatha Kumar.
Principal
Sapthagiri College of Engineeri
No. 14/5, Chikkasandra
Hesaraghatta Main Roa
Bangalore -560 057.

Name of the Examiners

Dr. Ananda S

Signature with date

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057

DEPARTMENT OF BIOTECHNOLOGY

CERTIFICATE

This is to certified that the project work entitled **"Image Processing and Networking of Neurodegenerative Disorders"** has been carried out by **Mr. Abhijeet Sambhaji Tibile (1SG11BT001) and Mr. Nagaraj G (1SG10BT023)** are bonafide students of VIII semester B.E in Biotechnology of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Biotechnology of Visvesvaraya Technological University, Belagavi during the academic year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide

Mr. Prashanth Kumar H P

Assistant professor, SCE

Co-Guide: Ms. Saranya D

Assistant professor, SCE

Signature of the HOD

Dr. Ananda S

Professor & Head, SCE

Head of the Department
Dept. of Bio-Technology
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No. 57/1, Chikkasandra,
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Bangalore-57

Signature of the Principal

Dr. Aswatha Kumar M

Principal, SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
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Name of the Examiners	Signature with date
Dr. Naik	
Dr. Ananda S	10/6/15

Principal
Sapthagiri College of Engineering
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Bangalore

10.6.15

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"INDIAN SIGN LANGUAGE TRANSLATION USING COMPUTER VISION"** carried out by **PRAJWAL G REDDY (1SG15CS071), RHEA SANJAN B R (1SG15CS085), SHARON PHYLIS L (1SG15CS099), VARSHA N URS (1SG15CS120)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Madhushree 21/5/19	21/5/19	21/5/19
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Mrs. Madhushree	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Dr. Kamalakshi Naganna	13/6/19
2. Rajkumar	13/6/19

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled "EFFECTIVE HEART DISEASE PREDICTION SYSTEM USING MACHINE LEARNING" carried out by **Madhukesh D (1SG15CS047), Manish Kumar Giri (1SG15CS049), Nirmith S Rai (1SG15CS061), Nitesh Jaiswal (1SG15CS064)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (15CSP85)** prescribed for the said degree.

20/5/19	23/5/19.	23/5
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Chaithra	**Dr. Kamalakshi Naggana**	**Dr. K L Shivabasappa**
Associate. Professor	**Professor & Head (IC)**	**Principal**

EXTERNAL EXAMINATION:

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Nagaraja	14/6/19
2. Raj Kumar	14/6/19

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"DETECTION OF DIABETIC RETINOPATHY IN EARLIER STAGES"** carried out by **HARSHITHA Y (1SG15CS029), KUSUMALATHA K (1SG15CS043), NEHALAKSHMI P A (1SG15CS058), NIRMALA G(1SG15CS060)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

23/5/19 23/5/19 24/5/19

Signature of the Guide	Signature of the HOD (IC)	Signature of the Principal
Mrs. Sneha G	Dr. KamalakshiNaganna	Dr. K L Shivabasappa
Assistant professor	Professor & Head	Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Naganna	13/6/19
2. Rajkumar	13/6/19

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled "FARMER ADVISORY: A CROP DISEASE DETECTION" carried out by AISHWARYA C (1SG15CS006), ASHWINI N (1SG15CS012), NAVITHA K SINGH (1SG15CS057), NEHA VIJAYANANDA (1SG15CS059) bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of Project Work Phase II (15CSP85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD (IC)	Signature of the Principal
Mrs. Anuradha Badage	Dr. Kamalakshi Naganna	Dr. K L Shivabasappa
Assistant Professor	Professor & Head	Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Naganna	14/6/19
2.	14/6/19

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"ELASTIC SEARCH IN CACHE BASED SERVICE MANAGEMENT FOR HEALTH CARE AUTOMATION"** carried out by **PRAGATHI M P (1SG15CS070), TEJASHWINI K (1SG15CS115), VARSHA M B (1SG15CS121), VIBHA J (1SG15CS123)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Kavitha G 23/5/19

Signature of the Guide
Mrs Kavitha G
Assistant professor

23/5/19

Signature of the HOD (IC)
Dr. Kamalakshi Naganna
Professor & Head

Signature of the Principal
Dr. K L Shivabasappa
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. D. Suriya Prakash	12/6/19
2. Hamsa. A.S.	12/6/19

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"FOG-BASED CRIME ASSISTANCE IN SMART IOT TRANSPORTATION SYSTEM"** carried out by **THEJASHREE M (1SG16CS420), UZMA TAHASEEN (1SG15CS117), VARSHITHA R (1SG16CS422), VEENA M (1SG15CS122)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Nanda 18/5/19

Signature of the Guide
Mrs. Nanda M B
Assistant Professor
Dept. of CSE

23/5/19

Signature of the HOD (IC)
Dr. Kamalakshi Naganna
Professor & Head

Professor & Head of the Department
Computer Science Engineering
Sapthagiri College of Engineering
Bangalore-57

Signature of the Principal
Dr. K L Shivabasappa
Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. D. Sujaya Prakash	12/6/19
2. Hamsa. A.S	12/6/19

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

Certificate

Certified that the Project Work entitled **"A PERSONALIZED MEDICAL ASSISTANT CHATBOT"** carried out by **SATVIK RANJAN (1SG15CS094), TATHAGAT ANKIT (1SG15CS114), VIVEK KUMAR (1SG15CS125)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (15CSP85)** prescribed for the said degree.

Signature of the Guide Prof. Sneha G Asst. Professor	Signature of the HOD Dr. Kamalakshi Naganna (IC) Professor & Head	Signature of the Principal Dr. K L Shivabasappa Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. S. Sujiya Prakash	12/6/19
2. Hamsa A S	12/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"EMOTION RECOGNITION FROM VOICE"** carried out by **ABHIJEETH V MADALGI (1SG15CS002), BHYRAVI S (1SG15CS019), HEMANTHKUMAR M (1SG15CS030), JAGADISH D N (1SG15CS032)** bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

16/6/19	16/6/19	20/6/19
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Mrs. Kavya N L	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Latha PH	11/6/19
2. S. Sujay Prakash	11/6/19

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"DATA LEAKAGE DETECTION USING SEMANTIC ANALYSIS"** carried out by **SURAJ S PANCHAKSHARI (1SG15CS112), SHARATH B S (1SG15CS097), ROHIT N K (1SG15CS089), SANJAY U K (1SG15CS093)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Ms.Supreetha S	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Asst.Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Dr. Kamalakshi Naganna	14/6/19
2.	

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

Certificate

Certified that the Project Work entitled "**Cancer Profiling using Machine Learning**" carried out by **AAYUSH SHRIVASTAVA (1SG15CS001), DAWAN P SWAMY (1SG15CS022), JITHENDRA C (1SG15CS034), MOHIT KUMAR (1SG15CS054)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

21/5/19	21/5/19	
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Mrs. Veena K R	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. B. Suriya Prakash	12/6/19
2. Hamsa. A.S	12/6/19

Principal
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"PNEUMONIA DETECTION USING CONVOLUTIONAL NEURAL NETWORK"** carried out by **RAJESHWARI S (1SG15CS077), RASHMI (1SG15CS081), SNEHA MALAV (1SG15CS104), VINAYA R (1SG15CS124),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Signature of the Guide **Mr. Suriya Prakash J** **Assistant Professor**	21/5/19 **Signature of the HOD (IC)** **Dr. Kamalakshi Naganna** **Professor & Head**	**Signature of the Principal** **Dr. K L Shivabasappa** **Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Latha PH	
2. S. Suriya Prakash	11/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled "Emotion based music system" carried out by Rithik V Gopal (1SG15CS088), Soumyadeep Ghosh (1SG15CS105), bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineeringin Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of Project Work Phase II (15CSP85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD (IC)	Signature of the Principal
Mrs. Nanda M B	Dr. Kamalakshi Naganna	Dr. K L Shivabasappa
Assistant Professor	Professor & Head	Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Naganna	13/6/19
2. Rajkumar	13/6/19

Principal
Sapthagiri College of Engineering
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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"IMPLEMENTATION OF TIME-SENSITIVE DATA IN PUBLIC CLOUD USING TIME AND ATTRIBUTE FACTORS COMBINED ACCESS CONTROL"** carried out by **CHETHAN M (1SG15CS402), SHARATH KUMAR G M (1SG15CS421), SHRAVANI V (1SG15CS422)** bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

12/6/18	12/06/18	12/6/18
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Kavya N L	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**
	Department Of Computer Science & Engg.	**Principal**
	Sapthagiri College of Engineering	**Sapthagiri College of Engineering**
	14/5, Chikkasandra, Hesaraghatta Main Road,	**Chikkasandra, Hesaraghatta Road**
	Bengaluru-560 057.	**Bangalore- 560 057**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. DR. Ananda Basu. J	15/6
2. VIDYA. H. A.	15/6

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"CHILD RESCUE SYSTEM AGAINST OPEN BOREWELLS"** carried out by **K. NAVEENA SHARMA (1SG15CS056), DIKSHA KESHRI (1SG15CS025), ANUSHA S. P (1SG15CS132), SNEHA G. N (1SG15CS131)**,bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)**prescribed for the said degree.

Shilpa 23/5/19.	23/5/19	11/06
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Shilpa. M	**Dr. KamalakshiNaganna**	**Dr. K L Shivabasappa**
Assistant professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Naganna	13/6/19
2. Sanjkumar	13/6/19

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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"Ambulance System with Intelligent Traffic Control Facility"** carried out by **AISHWARYA K Y(1SG14CS007), KOTIREDDY RAJITHA (1SG15CS128), SONIA S K (1SG15CS129), GOWTHAMI G (1SG15CS130)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineeringin Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

22/5/19	22/5/19	22/5/19
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Mr. Srikantha Gowda R	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Dr. Kamalakshi Naganna	14/6/19
2. Raj Kumar	14/6/19

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Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"DETECTING AND ANALYSING URBAN REGIONS WITH HIGH IMPACT OF WEATHER CHANGES ON POLLUTION"** carried out by **BHUVANASHREE V (1SG16CS401), JAYASHREE C Y (1SG16CS406), SWETHA S (1SG16CS419), THRIVENI L (1SG16CS421)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

7.5.	20/5/19	20/5/19
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Mr. Arun Kumar S	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Hamsa A.S	12/6/19
2. S. Suriya Prakash	12/6/19

Principal
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"PERFORMANCE ANALYSIS THROUGH DIMENSIONAL REDUCTION AND CLASSIFICATION ALGORITHM USING KDD CUP AND UNSW-NB15 DATASET"** carried out by **CHARULATHA M (1SG16CS402), MANJUNATHA M (1SG16CS407), MANU V (1SG16CS409), MEGHANA K J (1SG16CS410)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Signature of the Guide **Prof. Suriya Prakash J** **Assistant professor**	22/5/19 **Signature of the HOD (IC)** **Dr. Kamalakshi Naganna** **Professor & Head**	22/5/19 **Signature of the Principal** **Dr. K L Shivabasappa** **Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Naganna	14/6/19
2. Rajkumar	14/6/19

Principal
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Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

Certificate

Certified that the Project Work entitled "DATA DRIVEN INTELLIGENT PUBLIC TRANSPORTATION USING LoRa" carried out by KATHYAYANI LAXMAN NAYAK (1SG15CS039), KRUTHIKA HOLLA S B (1SG15CS042), MAJID EQUBAL AKHTAR (1SG15CS048), NISHANT YADAV (1SG15CS063), bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

24/5/19	24/5/19	24/5
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Prof. Latha A	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Latha AH	Latha AH
2. S. Suriya Prakash	S. Suriya Prakash 11/6/19

Principal
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Bangalore-560 057

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Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"DETECTING AND ANALYSING URBAN REGIONS WITH HIGH IMPACT OF WEATHER CHANGES ON POLLUTION"** carried out by **BHUVANASHREE V (1SG16CS401), JAYASHREE C Y (1SG16CS406), SWETHA S (1SG16CS419), THRIVENI L (1SG16CS421)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

A.S.	20/5/19	20/5/19
Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Mr. Arun Kumar S	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Hamsa. A.S	12/6/19
2. T. Sujaya Prakash	12/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"DEDUPLICATION OF ENCRYPTED BIG DATA ON CLOUD"** carried out by **ANUSHA KAMATH (1SG15CS011), BATTULA SHEETAL (1SG15CS015), MEGHANA M KALYAN (1SG15CS051), MEGNANA S (1SG15CS052)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

20/5	20/5/19	20/5/19
Signature of the Guide **Srikanth M S** **Assistant Professor**	**Signature of the HOD (IC)** **Dr. Kamalakshi Naganna** **Professor & Head**	**Signature of the Principal** **Dr. K L Shivabasappa** **Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Dr. Kamalakshi Naganna	14/6/19
2. Raghavendra	14/6/19

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled "**INTEGRATED SMART GOVERNMENT FAIR PRICE SHOP INVOICE SYSTEM**" carried out by **PRAVEEN R (1SG14CS081), SATHYA SAI M (1SG15CS095)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Nandhini N	**Dr. Ramesh Shahabadkar**	**Dr. K L Shivabasappa**
Assistant Professor, CS&E	**Professor & Head, CS&E**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Dr. Kamalakshi Nagaraja	13/6/19
2. Rajkumar	13/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"ANOMALY DETECTION SYSTEM IN CCTV DERIVED VIDEOS"** carried out by **ANKIT GUPTA (1SG15CS010), BARATH KUMAR M R (1SG15CS014), LALIT SHARMA (1SG15CS044)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Nandhini 16/5/2019

Signature of the Guide
Mrs. Nandhini N
Assistant Professor

17/5/19

Signature of the HOD (IC)
Dr. Kamalakshi Naganna
Professor & Head

20/5/19

Signature of the Principal
Dr. K L Shivabasappa
Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Naganna	14/6/19
2. Raghuraj	14/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

Certificate

Certified that the Project Work entitled **"Opinion Mining of Twitter data for Hotel review analysis"** carried out by **HARSH RAJ (1SG15CS028), KAMAD BHATT (1SG15CS036) and MD. ADNAN AHMED (1SG15CS050)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

21/5

Signature of the Guide
Mr. Srikanth M S
Assistant Professor

21/5/19

Signature of the HOD (IC)
Dr. Kamalakshi Naganna
Professor & Head

24/5

Signature of the Principal
Dr. K L Shivabasappa
Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Kamalakshi Naganna	14/6/19
2. Raj Kumar	14/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"INTELLIGENT ANSWERING SYSTEM USING SIMILARITY MODEL BASED LEARNING"** carried out by **RACHEL BRITTO (1SG15CS076), SHWETHA S (1SG15CS101), DEEPAK N (1SG16CS404)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)**prescribed for the said degree.

20/5/19	20/5/19	20/5/19
Signature of the Guide **Dr.Ananda Babu J** **Associate Professor**	**Signature of the HOD (IC)** **Dr. Kamalakshi Naganna** **Professor & Head**	**Signature of the Principal** **Dr. K L Shivabasappa** **Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1.	12/6/19
2. Hamsa, A, S	12/6/19

Principal
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"AN E-VOTING SYSTEM BASED ON BLOCKCHAIN AND RING SIGNATURE"** carried out by **PRANAB GUPTA (1SG14CS079), ONKAR PANSARE (1SG13CS068), SINDHU S (1SG14CS107), SHANKARAGOUDA S (1SG14CS421)** bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

14/06/19	14/6/19	14/06
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Chaithra	**Dr. Ramesh Shahabadkar**	**Dr. K L Shivabasappa**
Associate Professor	**Professor & Head CS&E**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Dr. Ananda Basu	15/6
2. VIDYA. H. A.	15/6/19

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"A WORKFLOW MANAGEMENT SYSTEM FOR SCALABLE DATA MINING ON CLOUDS"** carried out by **POOJA H R (1SG15CS068), ROSHAN S OLATY (1SG15CS090), BHUMIKA B R (1SG15CS017)** bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15CSP85)** prescribed for the said degree.

Signature of the Guide	**Signature of the HOD (IC)**	**Signature of the Principal**
Prof.Supreetha S	**Dr. Kamalakshi Naganna**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. Dr. Kamalakshi Naganna	14/6/19
2. Raj Kumar	14/6/19

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Main Road
Bangalore

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"SAPTHAGIRI COLLEGE DEPARTMENT WEBSITE"** carried out by **ABHISHEK RAJ (1SG13CS002), HIMANSHU VERMA (1SG13CS049)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)**prescribed for the said degree.

Signature of the Guide
Prof. Mamtha A
Asst. Professor

Signature of the HOD
Dr. Yogish H K
Professor & Head

Professor & Head of the Department
Computer Science Engineering
Sapthagiri College of Engineering
Bangalore-57

Signature of the Principal
Dr. K L Shivabasappa
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. MANJESH. B.N	14/6
2. Datta	14/6/18.

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"GARBAGE MONITORING USING IOT WITH LOCATION TRACKING AND ALERT"** carried out by **KOMMINDALA APARNA (1SG14CS044) KUNDHAVI NANDAKUMAR (1SG14CS048), NAMITHA H (1SG14CS061), PREKSHA R (1SG15CS411)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

12/06/18

Signature of the Guide
Abhishek K L
Assistant Professor

14/06/18

Signature of the HOD
Dr. Yogish H K
Professor & Head

Signature of the Principal
Dr. Shivabasappa K L
Principal

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1. Dr. Yogish H K	14/06/18
2. Prof. Ranganatha. H.R	14/06/18

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"ANALYSIS OF NETWORK TRAFFIC AND SECURITY THROUGH LOG AGGREGATION"** carried out by **BHOOMIKA.H (1SG14CS019), ANANYA BANDYOPADHYAY (1SG14CS012), ISHAN SINGHANIA (1SG14CS034), KRUPAL SHAH (1SG14CS045)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Arun Kumar S	Dr. Yogish H K	Dr. K L Shivabasappa
Asst. Professor	Professor & Head of the Department	Principal
	Computer Science Engineering	
	Sapthagiri College of Engineering	
	Bangalore-57	

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Islam Udd.	13/6/18
2. Ramanagouda. S. Patil	13/6/18

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"HOME AUTOMATION USING IOT AND CLOUD SERVER"** carried out by **FLAVIA FRANCIS ERNANDES (1SG14CS029), HARSHITHA P (1SG14CS032), HUMA RAFFATH MAAB (1SG14CS033), KM MADHU KUMARI (1SG14CS039)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

11/06/2018	12/06/18	12/6/18
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Kamalakshi Naganna	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Associate Professor	**Professor& Head**	**Principal**

Department Of Computer Science & Engg.
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road,
Bengaluru-560 057.

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. MANJESH. B.N	13/6/18
2. Chaitra	13/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"ADVANCE SMART CART SYSTEM IN SUPER MARKET"** carried out by **Sahana B (1SG14CS097) ,Sanjana M Aithal (1SG14CS099) ,Swetha K (1SG14CS116),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Madhushree 12/6/18	12/06/18	
Mrs. Madhushree	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Asst. Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. MANJESH B.M	13/6
2. Chaithra	13/06/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled "ENHANCING DOWNLOAD SPEED WITH SECURITY" carried out by **NIKHIL SRIVASTAVA (1SG14CS068), SHRADDHA V (1SG14CS103), VEDASHREE D (1SG14CS119), ZAIBA A S (1SG14CS126)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (10CS85) prescribed for the said degree.

12/06/18

Signature of the Guide
Dr. Yogish H K
Professor & Head

12/06/18

Signature of the HOD
Dr. Yogish H K
Professor & Head

Professor & Head of the Department
Computer Science Engineering
Sapthagiri College of Engineering
Bangalore-57

Signature of the Principal
Dr. K L Shivabasappa
Principal

Principal
Sapthagiri College of Engineeri
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1. MANTESH. B.N	13/6/18
2. Chaitra	13/6/18

Principal
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Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled "REPAIRING THE FAILED NODE IN DISTRIBUTED STORAGE SYSTEM" carried out by Nikhil Sharan (1SG14CS067), Pranay Prakash (1SG14CS080), Priyanshu (1SG14CS085), Jibin Thomas (1SG14CS408), bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Supreetha 12/6/18	12/06/18	12/6/18
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Supreetha S	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Asst. Professor	**Professor & Head**	**Principal**

Department of Computer Science & Engg.
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Bengaluru-560 057.

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. MANJESH. B.N	13/6
2. Chaithra	13/06/18

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"IOT BASED HOME SECURITY THROUGH DIGITAL IMAGE PROCESSING ALGORITHMS"** carried out by **SANKETH P N (1SG14CS100), SRIRAJ P (1SG14CS112), PUNITH H R (1SG15CS414),REVANTH C (1SG15CS417)**,bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (10CS85) prescribed for the said degree.

12/6/18

Signature of the Guide
Mrs. Anuradha B
Assistant Professor

12/06/18

Signature of the HOD
Dr. Yogish H K
Professor& Head
Department Of Computer Sicence & Engg.
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Bengaluru-560 057.

Signature of the Principal
Dr. K L Shivabasappa
Principal

EXTERNAL EXAMINATION

Name of the Examiners		Signature with Date
1. MANJESH. B.N		14/6/18
2. Lalita	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road, Bangalore- 560 057	14/6/18.

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"NETSPAM: A NETWORK-BASED SPAM DETECTION FRAMEWORK FOR REVIEWS IN ONLINE SOCIAL MEDIA"** carried out by **GOVINDARAJU B.G (1SG15CS405), POOJA RAMAPPA MAGADUM (1SG15CS410), PRIYA S (1SG15CS412), RAHUL B.R (1SG15CS416)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

13/6/18	13/06/18	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Latha A	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Asst. Prof., Dept. of CSE	**Professor & Head**	**Principal**
	Professor & Head of the Department Computer Science Engineering Sapthagiri College of Engineering Bangalore-57	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore- 560 057

EXTERNAL EXAMINATION

Name of the Examiners	**Signature with Date**
1. MANJESH B V	13/6
2. Chaitra	13/06/18

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Department of Computer Science and Engineering

Certificate

Certified that the Mini Project Work entitled **"ANALYSING SENTIMENTS IN ONE GO: A SUPERVISED JOINT TOPIC MODELLING APPROACH"** carried out by **SYED MUSTAQEEM (1SG11CS102)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (10CS85) prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Shruthi N	**Dr. Yogish H K**	**Dr. Shivabasappa K L**
Assistant Prof.	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION

Name of the Examiners	**Signature with Date**
1. S. Sujaya Prakash	14/6/18
2.	

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"SOLUTION FOR PERISHABLE PRODUCT IN COLD CHAIN MANAGEMENT"** carried out by **RAKESH C (1SG14CS088), VINOD KUMAR S (1SG14CS121), YADNIK V GAONKAR (1SG14CS124), MANU K V (1SG15CS407)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

12/6/18	12/06/18	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Shruthi N	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**
	Department Of Computer Science & Engg. Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057.	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore-560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Islamuddin	13/6/18
2. Ramanagouda. S. Patil	13/6/18

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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"SCE-STUDENT ALUMINI PORTAL MANAGEMENT SYSTEM"** carried out by **BHUVANA B (1SG14CS020), BINDYA K (1SG14CS021), MEGHANA C G (1SG14CS057),NANTHINI S S (1SG14CS062),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

12/6/18

Signature of the Guide
Ramanagouda S Patil
Asst. Professor

12/06/18

Signature of the HOD
Dr. Yogish H K
Professor & Head
Professor & Head of the Department
Computer Science Engineering
Sapthagiri College of Engineering
Bangalore-57

Signature of the Principal
Dr. K L Shivabasappa
Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. NANTHISH . B . N	13/6
2. Chaitra	13/06/18

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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"PROVIDING SECURITY TO CLOUD DATA USING KEY EXPOSURE"** carried out by **DINESH KUMAR (1SG14CS027), DIVESH KUMAR (1SG14CS043), KAWALJEET SINGH (1SG14CS043), KUMAR PIYUSH (1SG14CS047)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

madhushree 12/6/18

Signature of the Guide
Madhu Shree
Asstistant Professor

12/06/18

Signature of the HOD
Dr. Yogish H K
Professor & Head
Department Of Computer Sicence & Engg.
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Bengaluru-560 057.

Signature of the Principal
Dr. K L Shivabasappa
Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Kalaim vadi..	13/6/18
2. Ramanagouda. S. Patil	13/6/18

Principal
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Bangalore- 560 057

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"DISEASE PREDICTION BY MACHINE LEARNING OVER BIG DATA FROM HEALTHCARE COMMUNITIES"** carried out by **GIRISH S BATTUR (1SG15CS403), NARASIMHA M RAYKAR (1SG15CS409), SUDEEP P TULPULE (1SG15CS423), SUNIL P (1SG15CS424)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

13/6/18	13/06/18	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Chaithra	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Associate Professor	**Professor & Head**	**Principal**
	Professor & Head of the Department Computer Science Engineering Sapthagiri College of Engineering Bangalore-57	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore- 560 057

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. MANJESH B N	13/6
2. Chaithra	13/06/18

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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"AADHAAR CARD AND BIOMETRIC BASED VOTING MACHINE FOR LOCAL AND IMMIGRANT VOTERS"** carried out by **PRIYANKA R (1SG14CS084), PUSHPA S (1SG14CS086), RAKSHITHA R POOJARY (1SG14CS090), SOWMYA S (1SG14CS111)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Nanda M B	Dr. Yogish H K	Dr. K L Shivabasappa
Asst. Professor	Professor & Head	Principal
	Department Of Computer Science & Engg. Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057.	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore-560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1.	13/6/18
2. Ramanagouda. S. Patil	13/6/18

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"CLOUD DATA SHARING WITH GROUP USERS USING NPP AUDITING SCHEME"** carried out by **AAKASH KUMAR SINHA (1SG14CS001), ADARSH BHAT (1SG14CS005), BISWADEEP BHATTACHARJEE (1SG14CS022), BRAJESH JHA (1SG14CS023)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Kavya N L	Dr. Yogish H K	Dr. K L Shivabasappa
Assistant Professor	Professor & Head	Principal
	Professor & Head of the Department Computer Science Engineering Sapthagiri College of Engineering Bangalore-57	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore-560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1.	
2. Ramanagouda. S. patil	

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Mini Project Work entitled **"ANALYSING SENTIMENTS IN ONE GO: A SUPERVISED JOINT TOPIC MODELLING APPROACH"** carried out by **SYED MUSTAQEEM (1SG11CS102)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (10CS85) prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Shruthi N	**Dr. Yogish H K**	**Dr. Shivabasappa K L**
Assistant Prof.	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1. S. Sujan Prakash	14/6/18
2.	

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"BITCOIN SERVICE TRANSACTION"** carried out by **ARITHA M (1SG14CS037), JAYALAKSHMI G (1SG14CS038), KRUTHIKA M (1SG14CS046), ANASA H N (1SG14CS053),** bonafide students of **Sapthagiri College of Engineering**, in partial lfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **isvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that l corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited the department library. The project report has been approved as it satisfies the academic requirements in spect of **Project Work (10CS85)** prescribed for the said degree.

Shilpa 11/06/18
Signature of the Guide
Shilpa M
Asst. Professor

12/06/18
Signature of the HOD
Dr. Yogish H K
Professor& Head
Department Of Computer Sicence & Engg.
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12/6/18
Signature of the Principal
Dr. K L Shivabasappa
Principal

XTERNAL EXAMINATION:

ame of the Examiners	Signature with Date
1.	14/06/18 Dr. Yogish HK
2. Prof. Ranganath H.R	Rang 14/06/18

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"IDEAL REVIEWS USING TEXT AND EMOTICONS"** carried out by **AISHWARYA SWAMY (1SG14CS006), APOORVA KULKARNI (1SG14CS014), MANOGNA L (1SG14CS056), MOHIT RATHORE (1SG14CS060)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Veena K R	Dr. Yogish H K	Dr. K L Shivabasappa
Asst. Professor	Professor & Head	Principal

Professor & Head of the Department
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Principal
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EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. MANTESH-B·M	14/6
2. Latha	14/6/18.

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"A FRAMEWORK TO DETECT SQL INJECTION BY RUDERS FOR SAAS PROVIDERS"** carried out by **SATYAM BHARTI (1SG14CS101), JBHAM SINGH (1SG14CS106), SOURAV KUMAR (1SG14CS109)** bonafide students of **thagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **nputer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the lemic year 2017-2018. It is certified that all corrections indicated for Internal Assessment have been rporated in the report deposited in the department library. The project report has been approved as it sfies the academic requirements in respect of Project Work (10CS85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Gayathri Satish	Dr. Yogish H K	Dr. K L Shivabasappa
Asst. Professor	Professor & Head	Principal

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XTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1. Dr. Yogish H.K	14/06/18
2. Prof. Ranganatha. H.R	14/06/18

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"QUERY PROCESSING WITH ENERGY-EFFICIENCY IN WEB SEARCH ENGINES"** carried out by **AKSHATA T BHAT(1SG14CS009), ISHWARYA H B (1SG14CS035), JAGRUTI S (1SG14CS036), LAKSHMI R (1SG15CS406)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

12/06/18	12/06/18	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Nanda M B	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Asst. Professor	**Professor & Head**	**Principal**
	Professor & Head of the Department Computer Science Engineering Sapthagiri College of Engineering Bangalore-57	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore- 560 057

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. MANJESH. B N	14/06
2. A. Baltha	14/6/18.

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"AUGMENTED REALITY VIRTUAL DISTANCE MEASUREMENT SYSTEM"** carried out by **AKARSHA K R (1SG14CS008), AKSHAY G S (1SG14CS010), D S KARTIK (1SG14CS024), DEEKSHITH L (1SG14CS026)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Kavitha G	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & HOD**	**Principal**
	Department Of Computer Science & Engg. Sapthagiri College of Engineering 14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057.	Principal Sapthagiri College of Engine Chikkasandra, Hesaraghatta Ro Bangalore- 560 057

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. MANJESH B H	14/6
2. Katha	14/6/18.

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"Access Control on Time Sensitive Data based on Time and Attribute Factors in Public Cloud"** carried out by **Syed Ahmad Taqi (1SG14CS117), Vaibhav Gupta (1SG14CS118), Chandrabhushan Prakash (1SG14CS127),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Mamatha.A 12/6/18

Signature of the Guide
Prof. Mamatha A
Asst. Professor

12/06/18

Signature of the HOD
Dr. Yogish H K
Professor & Head

Professor & Head of the
Computer Science & Engineering
Sapthagiri College of Engineering
Bangalore-57

12/6/18

Signature of the Principal
Dr. K L Shivabasappa
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. MANJESH. B.N	14/6
2. Datta	14/6/18.

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"Child Safety Wearable Device "**carried out by **Abulaish Ansari (1SG14CS400), Rahul Kumar (1SG13CS078), Rohit Singh (1SG13CS088)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide
Suriya Prakash J
Asst. Professor

14/06/18

Signature of the HOD
Professor & Head of the Department
Computer Science & Engineering
Sapthagiri College of Engineering
Bangalore-57
Dr. Yogish H K
Professor & Head

Signature of the Principal
Dr. K L Shivabasappa
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. MANTESH. B N	14/6
2. Ivatha	14/6/18.

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled "QUICK PHRASE SEARCH OVER ENCRYPTE DATA ON CLOUD" carried out by **KARAN KUMAR SINGH (1SG14CS040), KUSHAL LOHAN (1SG14CS050), ANMOL ADUKIA (1SG14CS013),** bonafide students of **Sapthagiri College Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science ar Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in t report deposited in the department library. The project report has been approved as it satisfies the acaden requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

12/6/18	12/06/18	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principa**
Supreetha S	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Asst. Professor	**Professor& Head**	**Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1.	12/6/18
2. Ramanagouda. S. Patil	12/6/18

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Department of Computer Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled **"FRAMEWORK FOR ANALYSING STRESS USIN(DEEP LEARNING"** carried out by **NEWBY DAS (1SG14CS065), NISHCHITHA D. S. (1SG14CS070 RANJITHA V. (1SG14CS091), SAHANA M. R. (1SG14CS098),** bonafide students of **Sapthagi College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Comput Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic ye 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have be incorporated in the report deposited in the department library. The project report has been approved as satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Arun Kumar S	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head of the Department**	**Principal**
	Computer Science Engineering	
	Sapthagiri College of Engineering	
	Bangalore-57	

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Yogish HK	14/06/18
2. Prof. Rangaratha. H.R	14/06/

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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"APPLYING DATA MINING TECHNIQUES IN CYBER CRIME"** carried out by **ABHIRAM T (1SG14CS003), ABHISHEK M (1SG14CS004) and KAUSHIK J SHETTY (1SG14CS041),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Ashok K Patil Asst. Professor	Dr. Yogish H K Professor & Head Computer Science ... g Sapthagiri College of Engineering Bangalore-57	Dr. K L Shivabasappa Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. MANJESH. B.N	13/6/18
2. Chaithra	13/6/18

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the Project Work entitled **"A SYSTEMATIC APPROACH TOWARD DESCRIPTION AND CLASSIFICATION OF CYBERCRIME INCIDENT"** carried out by **GIRISH G (1SG15CS404), PUNEETH B (1SG15CS413), VIKRAM N (1SG15CS425), PREMKUMAR R (1SG14CS082)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10CS85)** prescribed for the said degree.

13/6/18	13/06/18	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Sneha G	**Dr. Yogish H K**	**Dr. K L Shivabasappa**
Asst. Professor	**Professor & Head**	**Principal**
	Professor & Head of the Department Computer Science Engineering Sapthagiri College of Engineering Bangalore-57	Principal Sapthagiri College of Engineeri Chikkasandra, Hesaraghatta Road Bangalore-560 057

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with Date**
1. J. Suriya Prakash	14/6/18
2.	

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**Automated Timetable Generation Using Genetic Algorithm**" carried out by **Divya V (1SG13CS041), Kavya P (1SG13CS054), Likhith C (1SG13CS058), Maizna Shariff (1SG13CS060)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Kavitha G 6/6/17	B.S 6/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Kavitha G	**Dr. C. M. Prashanth**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
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Name of the Examiners **Signature with date**

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Principal
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2..... .....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"An optimized approach for accessing small files in hdfs using TLB Mapfile"** carried out by **Rakesha R S(1SG13CS082), Akshay K(1SG14CS401), Annappa V(1SG14CS403), Rohith Murthy S K(1SG14CS418)**, bonafide students of **Sapthagiri College o Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science an Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the rep deposited in the department library. The project report has been approved as it satisfies the academic requireme in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide

Prof. Sushmitha J

Assistant Professor

Signature of the HOD

Dr. Prashanth C.M

Professor & Head

Signature of the Principal

Dr. Aswatha Kumar M

Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore-560 057

Name of the Examiners

Signature with date

1. .....
2. .....

1. .....
2. .....

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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**An optimized approach for accessing small files in hd using TLB Mapfile**" carried out by **Rakesha R S(1SG13CS082), Akshay K(1SG14CS401), Annap V(1SG14CS403), Rohith Murthy S K(1SG14CS418),** bonafide students of **Sapthagiri College Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science a Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the rep deposited in the department library. The project report has been approved as it satisfies the academic requireme in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Sushmitha J	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
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Bangalore-560 057

Name of the Examiners	**Signature with date**
1.	1. .....
2	2. .....

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work(10CS85) entitled **"One Way Live Video Streaming - OWL"** rried out by **VIKASH KUMAR (1SG13CS125), SHARAD CHAND (1SG13CS100), SHANTANU UMAR (1SG13CS098), RISHABH ANAND (1SG13CS086)** bonafide students of **Sapthagiri College Of ngineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and ngineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is ertified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report eposited in the department library. The project progress report has been approved as it satisfies the academic equirements in respect of Project work prescribed for the said degree.

Madhushree 23/6/17

Signature of the Guide

Mrs. MADHUSHREE

Assistant Professor

Bapi Laaja 23/6/17

for

Signature of the HOD

Dr. Prashanth C.M

Professor & Head

Signature of the Principal

Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra
Hesaraghatta Main Road,
Bangalore-560 057

Dr. Aswatha Kumar M

Principal

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"ZIGBEE BASED SMARTPHONE PROXIMITY ABSENCE ALERT SYSTEM"** carried out by **ANKITA BHARATI (1SG13CS016), DEEPESH JHA (1SG13CS038), PRAGYA (1SG13CS071), RAJEEV KUMAR (1SG12CS087)**, bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Kavitha G	**Dr. Prashanth C. M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore-560 057

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Fruit Harvesting using Image Processing"** carried out by **Ravi Roshan (1SG13CS085), Satyam Kumar Suman (1SG13CS096), Shanu Singh (1SG13CS099), Shashank Shekhar (1SG13CS101),** bonafide students of **this institute,** in fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project progress report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Anuradha B	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"A Secure Anti-Collusion Data Sharing Scheme for Dynamic Groups in the Cloud"** carried out by **ROHIT KUMAR(1SG13CS087), SANT RAJ (1SG13CS094), SHAMMEM AHAMAD(1SG13CS097), VIDYA SAGAR(1SG13CS123)**, bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year **2016-17**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project progress report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

19/6/17

Signature of the Guide

Prof. Latha A

Assistant Professor

22.6.17

Signature of the HOD

Dr. Prashanth C.M

Professor & Head

Signature of the Principal

Dr.Aswatha Kumar M

Principal

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Inference Attack using Public click analytics on Twitter Users"** carried out by **AKSHATA MANJUNATH HEGDE(1SG13CS009),CHAITHRA S(1SG13CS029), KEERTI M HEGDE(1SG13CS055)** bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgavi** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.Shruthi .N	**Dr. Prashanth C.M**	**Dr. Ashwatha Kumar**
Assistant Professor	Professor & Head	Principal

Name of the examiners	Signature with date
1.....	.....
2.....	.....

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**Structural Balance Theory Based E-Commerce Recommendation**" carried out by **VANDITHA.V (1SG11CS089), DEEPASHREE M.S (1SG13CS403), DHRUVA KUMARA B.Y (1SG14CS407), NAKUL SAGAR (1SG12CS058),** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of Visvesvaraya **Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project progress report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

10/6/17	10/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. J. Suriya Prakash	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Automated Vigilance System using Raspberry Pi"** carried out by **SHALINI V(1SG13CS129), RANJITHA C(1SG10CS062), SHRISTI KESHRI(1SG13CS135),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project progress report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr. CHETHAN M	**Dr. Prashanth C.M**	**Dr.AswathaKumar M**
Asst Professor	Professor & Head	Principal

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Main Road
Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Intelligent Drone Controlled by Voice"** carried out by **SANGEETA SHARMA (1SG13CS092), SHIVANI PARIKH (1SG13CS103), SUBHASHIS BISWAS (1SG13CS111), TAPAS KUMAR DHAR (1SG13CS120),** bonafide students of this Institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work(10CS85) prescribed for the said degree.

13/6/17	13/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Poornima G J	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Name of the Examiners with date

Signature

1.....

.....

2.....

.....

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work (10CS85) entitled **"CREATION OF A BINARY CLASSIFICATION MODEL"** carried out by **SANJANA A.R. (1SG13CS093), SUNITHA SUNDARAN (1SG13CS115), SHRUTHI H K (1SG13CS416),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Akshatha BR	Prashanth 21.06.17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Akshatha B.R.	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal
		Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

Name of the Examiners	**Signature with date**
1	.....
2	.....

Principal
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Bangalore-560 057

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"MINING HEALTH EXAMINATION RECORD-A GRAPH BASED APPROACH"** carried out by **HEMASHREE S (1SG11CS100), NEETU S (1SG13CS065), NIDA FAZEELATH (1SG13CS066), PRATHIKSHA B (1SG13CS072)**, bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

10/6/17

Signature of the Guide

Ms. Veena K R

Assistant Professor

10/6/17

Signature of the HOD

Dr. Prashanth C.M

Professor & Head

Signature of the Principal

Dr. Aswatha Kumar M

Principal

Principal
SAPTHAGIRI COLLEGE OF ENGINEE
Chikkasandra, Hesaraghatta Road
Bangalore - 560 057

Name of the Examiners

Signature with date

1..... .....

2..... .....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Advanced Map Reduce Framework For Geo-Dispers Big Data"** carried out by **Arnav Ashu (1SG13CS018), Avinash Kumar (1SG13CS024), Kruthika (1SG13CS056), Mayuri Priya (1SG13CS062),** bonafide students of **this institute,** in partial fulfillment for t award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technologi University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indica for Internal Assessment have been incorporated in the report deposited in the department library. The proj report has been approved as it satisfies the academic requirements in respect of Project work (10cs prescribed for the said degree.

10/6/17

Signature of the Guide

Prof. Poornima G J

Assistant Professor

10/6/17

Signature of the HOD

Dr. Prashanth C.M

Professor & Head

Signature of the Principal

Dr. Aswatha Kumar M

Principal

Name of the Examiners

Signature with date

1.....

.....

2.....

.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 57

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled " **DATA HIDING IN ENCRYPTED IMAGES BASED ON PROGRESSIVE RECOVERY** " carried out by **DARSHAN M U (1SG13CS033), MAHESH S G (1SG12CS051), MANJUNATH N (1SG12CS054), MD AASIF NAUMAAN (1SG11CS043),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

J Sushmitha.	14/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Sushmitha J	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor.	**Professor & Head.**	**Principal.**

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"RRW-ROBUST AND REVERSIBLE WATERMARKING TECHNIQUE FOR DATA RECOVERY"** carried out by bonafide students **Alisha Raj (1SG13CS013), Archana Sinha (1SG13CS132), Ginia Dey (1SG13CS133),** and **Nidhi Singh (1SG13CS131),** of **Sapthagiri College Of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

9/6/17

Signature of the Guide

Prof. Roopa Banakar

Assistant Professor

9/6/17

Signature of the HOD

Dr. Prashanth C.M

Professor & Head

Signature of the Principal

Dr. Aswatha Kumar M

Principal

Name of the Examiners **Signature with date**

1.....

2.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"IDENTIFICATION OF DISEASES USING MACHINE LEARNING"** carried out by **PREETHI SRI B.S. (1SG13CS076), SHREYAS ATHREYA(1SG13CS105), SINDHU R. (1SG13CS107), SUMANTHA A.S. (1SG13CS114),** bonafide students of this **institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Bspriagi 21.06.17	Bspriagi 21.6.17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
for **Dr. Prashanth C.M**	for **Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Professor & Head	Professor & Head	Principal
		Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Identity Based Two Server Password Authenticated Key Exchange Protocol"** carried out by **R SUSHMA (1SG13CS077), VYSHAK M.V (1SG13CS127), BHARATH R (1SG14CS406), VEDA KUMAR B.H (1SG13CS421),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project progress report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Chethan M	Dr. Prashanth C.M	Dr. Aswatha Kumar M
Assistant Professor	Professor and Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-56

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Grain Safety Using Internet of Things"** carried out by **Abhilekh Kumar (1SG13CS001), Aditya Nath Singh (1SG13CS004), Ankit Abhinav (1SG13CS015), Atul Kumar Singh (1SG13CS023)** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

16/06/17	16/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ancy Thomas	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal

Name of the Examiners	**Signature with date**
1.....,	.....
2.....	.....

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Scalable and Real Time sentimental Analysis of Twitter Feeds"** carried out by **ASHOK SUTHAR(1SG12CS013), CHANDAN KUMAR (1SG12CS025), RAJESH KUMAR(1SG12CS088), SUKUMAR SANU(1SG12CS114),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

9/6/17	9/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
J. Suriya Prakash	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"A SECURE ID BASED SIGNATURE SCHEME FOR WSNs USING IoT"** carried out by **BHAGYASHREE.M (1SG13CS026), CHAITHRASHREE.B (1SG13CS030), CHITRA.K (1SG13CS032), DEEPASHREE.G (1SG13CS035),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work [10CS85] prescribed for the said degree.

13.06.2017	14/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr.Rajeev Bilagi	**Dr.C.M.Prashanth**	**Dr.Ashwatha Kumar M**
Associate Professor	Professor and Head	Princpal

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**An efficient clinical framework for PHI records of E-Healthcare System in Cloud**", carried out by **Aishwarya N R (1SG13CS007), Asha T N (1SG13CS020), Ashritha Shetty S (1SG13CS021), Divya Singh(1SG13CS040)**, bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Ancy Thomas 13/06/17	13/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ancy Thomas	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Principal
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Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Mobile App For Emergency Services"** carried out by **Ashwin Sharma (1SG13CS022), Bipin Kumar (1SG13CS027), Manash Kumar (1SG13CS061), Bhashkar Kuma Pandey (1SG10CS017)** bonafide students of **Sapthagiri College Of Engineering**, in partial fulfillment for th award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technologica University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicate for Internal Assessment have been incorporated in the report deposited in the department library. The proje report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribe for the said degree.

Akshatha G.C 16/6/17		
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Akshatha G C	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**Two Party Key Issuing Protocols for Improving Attribute-Based Data Sharing Scheme Revisited in Cloud**" carried out by **Preethi P(1SG13CS075), Ranjitha K T(1SG13CS084), Anithalakshmi C (1SG14CS402), Ramya J(1SG14CS417),** bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project progress report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

22/6/17	Reprilagi 22.6.17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Veena K.R	for **Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assisant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
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Name of the Examiners		**Signature with date**
1.....		.....
2.....		.....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**A Secure Data Sharing Scheme for Dynamic Groups with Secure Key Distribution in the Cloud**" carried **CHAITRA.J (1SG13CS402), SHWETHA.K (1SG13CS417), NAGARATHNA.Y (1SG13CS407),** bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of Principal
Prof. Shobha Chandra K	**Dr. C.M.Prashanth**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & H.O.D	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No: 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

Name of the Examiners — Signature with Date

1..... .....

2..... .....

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Search Optimization using Incremental and Distributed Inference Method"** carried out by **RAGHU M (1SG12CS082), RAJATHA N RAO (1SG12CS086), SAMARTHA M PATIL (1SG12CS094), SHRUTHI S KUMAAR (1SG12CS108)**, bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Ancy Thomas 18/5/16		
Signature of the Guide	Signature of the HOD	**Signature of the Principal**
Prof. Ancy Thomas	**Dr. Prashanth C M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal
		Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra Hesaraghtta Main Road, Bangalore-560 057

Name of the Examiners **Signature with date**

1.....

2.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that project entitled **"INCREMENTAL(I2) MAPREDUCE FOR BIG DATA"** carried out by, **PRATIK KUMAR (1SG12CS076), PRATIK TAMBI (1SG12CS077), RAUSHAN PRAKASH RANJAN (1SG12CS092), PRASANT GOURAV *(1SG11CS056)*** bonafide student of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS085) prescribed for the said degree.

J. Sushmitha	23/5/16	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Sushmitha J	**Dr. C.M. Prashanth**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
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Name of the Examiners

Signature with date

Principal
Sapthagiri College of Engineering
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Bangalore-560057

SAPTHAGIRICOLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"EFFICIENT LZW ALGORITHM FOR DATA COMPRESSION USING GPGPU"** carried out by **RAJ PRAMODH K M (1SG12CS083), SHRUTHI G M (1SG12CS106), DHANUSH M (1SG13CS404), MAMATHA T (1SG12CS407)** bonafide students **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

18/5/16		
Signature of the Guide	**Signature of the HOD**	**Signature of the Princip**
Prof. Pathanjali C	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar**
Assistant Professor	Professor & HOD	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore-560 057

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRICOLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Identification of Artificially Ripened fruits using Support Vector Machine"** carried out by **Archana S (1SG12CS011), Kavya R(1SG12CS043), Nalinakshi K (1SG12CS059),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work(10CS85) prescribed for the said degree.

16/5/16	16/5/16	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs.Kamalakshi Naganna	**Dr.Prashanth C.M**	**Dr.Aswatha Kumar M**
Associate Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
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Bangalore-560 057

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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Bangalore-560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"SECURITY ENHANCEMENT FOR FOLDERS IN WINDOWS"** carried out by, **Ankur Singh (1SG12CS008), Gaurav Kumar (1SG12CS033), Lokesh Kumar (1SG12CS050), Badal Sharma (1SG13CS401),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Sheethal Raj T G	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the Examiners	**Signature with date**
1 _____	_____
2 _____	_____

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Enhancing the accessibility of microblogging messages using clustering"** carried out by **AKSHATHA B L (1SG12CS003), DEVAPRIYA M (1SG12CS028), HARSHITHA S J (1SG12CS034), NEETHU C (1SG12CS064)** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs.Ragini Krishna	**Dr. Prashanth C.M**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that project entitled **"AN APPLICATION FOR SMARTPHONE AUTHENTICATION BASED ON HAMILTONIAN COLOR-CODE SCHEME"** carried out by, **APOORVA HARIHAR (1SG12CS010), HARSHINI B.R (1SG12CS129), KUMAR SHUBHAM (1SG12CS046), NAMRATHA K.P (1SG13CS408)** bonafide student of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS085) prescribed for the said degree.

Chethan.M 18/05/16

Signature of the Guide

Mr.Chethan.M

Assistant Professor

18/5/16

Signature of the HOD

Dr.C.M.Prashanth

Professor & Head

Signature of the Principa

Dr.Aswatha Kumar M

Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,

Name of the Examiners **Signature with date**

1 _____ _____

2 _____ _____

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"DESIGN AND IMPLEMENTATION OF APPLICATION OF NETWORK SECURITY"** carried out by, **ANUSHA S(1SG12CS009), C RAKSHITH (1SG12CS021), CHAITRA M (1SG12CS023), MEGHA JM (1SG12CS056)** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. This project report has been approved as it satisfies the academic requirements in respect of Project work *(10CS085)* prescribed for the said degree.

Bsri Lagi 19.05.16		
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Rajeev Bilagi	**Dr.C.M.Prashanth**	**Dr. Aswatha Kumar M**
Associate Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
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Name of the Examiners **Signature with date**

1..... .....

2..... .....

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Context Aware Quick Information Retrieval System"** carried out by **SHRUTHI.R(1SG12CS107), VYSHAG VINAYAKUMAR.P.K(1SG12CS122), VIVEK BHAT(1SG12CS121), PRATHIBHA.P(1SG13CS410),** bonafide students of **Sapthagiri College Of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.Anuradha.B	**Dr.Prashanth C.M**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & HOD	Principal

Dr. Aswatha Kumar. M
Principal
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Bangalore-560 057

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"DISTORTION RESISTANT ROUTING MECHANISM FOR VIDEO TRANSMISSION IN WIRELESS NETWORK"** carried out by, **Rajat Jaiswal (1SG12CS085), Shilpa K (1SG12CS102), Sirisha P R (1SG12CS111), Srinagarathna M (1SG12CS112),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.Poornima G J	Dr.C.M.Prashanth	Dr.Aswatha Kumar M
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners	Signature with date
1 _____	_____
2 _____	_____

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"AN APPROACH TO CLASSIFY AND PRIORITIZE BUG DATA SETS "**carried out by **BHAGYALAKSHMI J P (1SG12CS016), BHAVANI B (1SG12CS017), LAVANYA M S (1SG12CS048), BHAVYASHREE S (1SG12CS019)** bonafide students of **Sapthagiri College Of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Madhushree 18/5/16	18/5/16	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Madhushree	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal
		Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

Name of the Examiners **Signature with date**

1..... .....

2..... .....

Principal
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Department of Computer Science and Engineering

Certificate

Certified that project entitled "**CLASSROOM ATTENDANCE MONITORING SYSTEM USING FACE RECOGNITION**" carried out by, **KUMAR ANUBHAW (1SG12CS045), MANISH KUMAR OJHA (1SG12CS053), BRIJ KISHOR KUMAR (1SG12CS020), ANKIT PAL (1SG12CS005),** bonafide student of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS085) prescribed for the said degree.

18/5/16	18/5/16	
Signature of the Guide	**Signature of the HOD**	**Signature of the Princi**
Mrs. Ancy Thomas	**Dr. C.M. Prashanth**	**Dr. Aswatha Kumar**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar.
Principal
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Name of the Examiners	**Signature with date**
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled "**INTEREST BASED FILE SHARING SYSTEM**" carried out by **Ankita Srivastav** (1SG12CS007), **Karanam Lekha** (1SG12CS039), **Lakshmi C.S** (1SG12CS047) and **Neha Yadav** (1SG12CS065) bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs.Veena Gadad	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
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Name of the Examiners	**Signature with date**
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2	

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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"AN ENHANCED EXTRACTION AND SUMMARIZATION TECHNIQUE WITH USER REVIEW DATA FOR PRODUCT RECOMMENDATION TO CUSTOMERS"** carried out by **SHAH WARIS HAMEED (1SG12CS098), ARUN M R (1SG12CS117), RAMEGOWDA C U (1SG13CS412), PUNEETH KUMARA M (1SG13CS411)**, bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work **(10CS85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr. Vikas B.O	Dr. Prashanth C.M	Dr.Aswatha Kumar M
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
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Name of the Examiners	Signature with date
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"An Approach to Enhance User Based Recommendation Engine for Big Data"** carried out by **NARAHARI P RAO (1SG12CS060), S NITIN SRINIVAS (1SG12CS068),** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (10CS85) prescribed for the said degree.

19/05/16

Signature of the Guide

Dr. Prashanth C.M

Professor & HOD

Dr. Aswatha Kumar. M
Principal
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Signature of the Principal

Dr. Aswatha Kumar M

Principal

Name of the Examiners	**Signature with date**
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Enhancing the accessibility of microblogging messages using clustering"** carried out by **AKSHATHA B L (1SG12CS003), DEVAPRIYA M (1SG12CS028), ARSHITHA S J (1SG12CS034), NEETHU C (1SG12CS064)** bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

25/5/16	25/5/16	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs.Ragini Krishna	**Dr. Prashanth C.M**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

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Name of the Examiners		**Signature with date**
1. Dhananjaya M.R		13.6.16
2. Kamalakshi Naganna	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road, Bangalore-560 057	13/6/16

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Design and Development of Braille to text and speech convertor to assist the blind"** carried out by **RASHMITHA.A.R (1SG12CS090), SHALINI.N (1SG12CS100), SHEELA.V.HASYAGAR (1SG12CS101), VISHAL TRIPATHI (1SG12CS120)**, bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the repor deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS085) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Sushmitha J	**Dr. Prashanth C.M**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
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Name of the Examiners	Signature with date
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Message Service Security and Control by Message Sender"** carried out by **Ashwin Bharadwaj B.N (1SG12CS128), Manohar G (1SG12CS055), Naveen N Prabhu (1SG12CS061), Shriram Subray Bhat (1SG12CS127),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Rajeev Bilagi	**Dr. Prashanth C.M**	**Dr.Aswatha Kumar M**
Associate Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
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Name of the Examiners **Signature with date**

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2..... .....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Emotion Finder: Detecting emotions from text files or tweets"** carried out by **POONAM SAINI (1SG12CS075), RADHIKA R KULKARNI (1SG12CS080), YASHAS M(1SG12CS123)** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmen library. The project report has been approved as it satisfies the academic requirements in respect o Project work prescribed for the said degree.

Signature of the Guide
Mrs.Ragini Krishna
Assistant Professor

Signature of the HOD
Dr. Prashanth C.M
Professor & Head

Signature of the Principal
Dr.Aswatha Kumar M
Principal
Dr. Aswatha Kumar. M
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Name of the Examiners

1.....

2.....

Principal
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Signature with date

.....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Networking With Location Anonymity Using Android"** carried out by **K.MONISHA (1SG12CS038), NAVYA SHREE A.V (1SG12CS062), NAYANA.B (1SG12CS063),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Ms.Veena K.R	Dr.Prashanth C.M	Dr.AswathaKumar M
Asst Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
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Name of the Examiners	Signature with date
1.....	.....
2.....	.....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"ClubCF: A Clustering-based collaborative Filtering Approach using AHC Algorithm"** carried out by **AKSHAYA A (1SG11CS007), ASHWINI C V(1SG11CS015), SAI RASHMI S (1SG11CS067)**,bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

22/5/15

Signature of the Guide

Mrs.Roopa Banakar

Assistant Professor

25/5/15

Signature of the HOD

Dr.C.M.Prashanth

Professor & Head

Signature of the Principal

Dr.Aswatha Kumar.M

Principal

Dr. Aswatha Kumar. M
Principal
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Bangalore -560 057.

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"INTRUSION DETECTION SYSTEM FOR DENIAL OF SERVICE"** carried out by **CHETHAN KUMAR S K (1SG11CS042), AKSHAY RAIKAR (1SG12CS400), MANOJ S(1SG11CS043)** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Poornima G J	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
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Name of the Examiners	Signature with date
1.....	.....
2.....	.....

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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Public Auditing For Shared Data With User Revocation In a Semi Trusted Server"** carried out by **ANUNAY KANT (1SG11CS011), CHANDAN KUMAR (1SG11CS018), KUNAL KUMAR ROY (1G11CS038), MOHIT BHARDWAJ (1SG11CS044)**, bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Arpitha S	Dr. C.M Prashanth	Dr. Aswatha Kumar M
Assistant Professor	Professor & Head	Principal
Dept of CS&E	Dept of CS&E	

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Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"EXPRESSIVE, EFFICIENT AND REVOCABLE DATA CESS CONTROL FOR MULTI AUTHORITY CLOUD STORAGE"** carried out by **SHARATH MAR (1G11CS074), MANJESH G S (1SG11CS101), NISHCHITH D R (1SG12CS411)** bonafide lents of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the demic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been rporated in the report deposited in the department library. The project report has been approved as it satisfies academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.A.Latha	Dr.C.M.Prashanth	Dr.Aswatha Kumar M
Assistant Professor	Professor & Head	Principal

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Principal
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Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
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Department of Computer Science and Engineering

Certificate

SAPTHAGIRI
College of Engineering

Certified that the project work entitled **"Mitigation of Sybil Attack in VANET usir Authentication algorithm"** carried out by **NISHANT VIKARAM (1SG11CS051), SANDEEP SING YADAV (1SG11CS068), SUBHASH VIPLAV (1SG11CS084), VISHAL BINIT (1SG11CS09** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during t academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment ha been incorporated in the report deposited in the department library. The project report has been approved t satisfies the academic requirements in respect of Project work prescribed for the said degree.

22/5/2015		
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Manoj H M	**Dr.C.M.Prashanth**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
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Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

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SAPTHAGIRICOLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"DATA CONFIDENTIALITY AND USAGE ESTIMATIO MODEL FOR CLOUD DATABASES THAT USES ADAPTIVE ENCRYPTION SCHEME"** carried o by **ACHIN SINDHAVA (1SG11CS002), ADARSH K(1SG11CS003), CHANNABASAPP (1SG11CS021), H Y PRAFUL (1SG11CS097),** bonafide students of **SAPTHAGIRI COLLEGE C ENGINEERING,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science a Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It certified that all corrections/suggestions indicated for internal assessment have been incorporated in the rep deposited in the department library. The project report has been approved as it satisfies the acader requirements in respect of Project work prescribed for the said degree.

Rashmi R 3/6/15	8/6/15	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs.Rashmi R	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Asst.Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
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Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"INCREASING DATA PRIVACY USING SELF-DESTRUCTIVE FRAMEWORK"** carried out by **INDHU.S (1SG11CS029), KAVYASHREE.V (1SG11CS033), KRISHIKA.R(1SG11CS036), KEERTHI.K(1SG11CS098),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

25/5/15	29/5/15	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Ms.Harini.S	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
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ame of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Sapthagiri College of Engineering
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SAPTHAGIRICOLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Optimal Distributed Malware Defense System in Mobile Networks with Heterogeneous Devices"** carried out by **Gururaj M Nandur (1SG12CS402), Manjunatha K N (1SG12CS408), Srikar Prakash (1SG08CS078),** bonafide students of **Sapthagiri College of Engineering,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr.Rajeev Bilagi	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Associate Professor	Professor & HOD	Principal

Dr. Aswatha Kumar. M
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Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department Of Computer Science and Engineering

Certificate

Certified that the project work entitled **"DECENTRALIZED ACCESS CONTROL WITH ANONYMOUS AUTHENTICATION OF STORED DATA"** carried out by **ADESH BEDRE A (1SG11CS004), KIRTHAN R KOTIAN (1SG11CS035)** and **PAVITHRA V (1SG11CS052)**, bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

3/6/15	3/6/15	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Ms. Veena K R	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal
Dept of CS&E		

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department Of Computer Science And Engineering

Certificate

This is to certify that **B VIBHAVARI (1SG11CS016), NAVEEN K V (1SG11CS046), JYOTHI D P (1SG11CS099)** and have satisfactorily submitted project report titled **"Detection and Mitigation of SQL Injection Attacks"** in partial fulfillment of the requirements as prescribed by the **Visveswaraya Technological University, Belgaum** for **Bachelor of Engineering** in **"Computer Science and Engineering"** for the academic year 2014 – 2015.

Signature of Guide/HOD

Dr. C M Prashanth

Professor and HOD

Dept of CS&E

Signature of Principal

Dr. Aswatha Kumar M

Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners	**Signature with date**
.....	.....
.....	.....

Principal
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Bangalore-560 057

Scanned by CamScanner

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department Of Computer Science and Engineering

Certificate

Certified that the project work entitled **"AN ENHANCED PROTOCOL FOR THE SECURE TRANSMISSION OF SMS"** carried out by **AMRUTHA VENKATESH (1SG11CS009), GNANESHWARI G (1SG11CS027), NARASIMHAN N J (1SG11CS045)** and **NIDHI PANDEY (1SG11CS048)**, bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. S.Kavitha	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal
Department of CS&E	Department of CSE	

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"ESTIMATION AND DE-IDENTIFICATION OF GENDER SIGNATURE FROM FINGERPRINTS"** carried out by **AKSHATHA HEBBAR (1SG11CS006), ANUSHA M (1SG11CS012), CHANDAN N (ISG11CS019), MALLIKARJUNA K R (1SG11CS039),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. This project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

26/5/15	29/5/15	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Kamalakshi Naganna	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Associate Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore -560 057.

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Secure And Efficient Data Transfer in Cluster base Wireless Sensor Networks "**carried out by **ADITI KUMARI (1SG11CS005), ARJITA (1SG11CS013 JAGADEVI KORI (1SG11CS030), JYOTI KUSHWAHA (1SG11CS032),** bonafide students Sapthagiri College of Engineering, in partial fulfillment for the award of **Bachelor of Engineeri nComputer Science and Engineering** of**Visvesvaraya Technological University, Belgaum** during t academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment ha been incorporated in the report deposited in the department library. The project report has been approved a satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Veena Gadad	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Main Rd.
Bangalore-560057

SAPTHAGIRICOLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"SECURE HOP-BY-HOP MESSAGE AUTHENTICATION IN WIRELESS SENSOR NETWORKS"** carried out by **PRIYANKA N L (1SG11CS058), SHASHIKALA R (1SG11CS075), SOUNDARYA V (1SG11CS081), VIDYASHREE S (1SG11CS092),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

23/5/15

Signature of the Guide

Mrs. Poornima G J

Associate Professor

-28/5/15

Signature of the HOD

Dr.C.M.Prashanth

Professor & Head

Signature of the Principal

Dr. Aswatha Kumar M

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Token Substitution Using Radix Tree Emulated Algorithm"** carried out by **Nikita Mangal (1sg11cs049), Ankit Jain (1sg11cs010), Akash.G (1sg10cs004), Subham Agarwal (1sg11cs083),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

21/5/15	21/5/15	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Pathanjali.C	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore -560 057.

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"COST-EFFECTIVE RESOURCE ALLOCATION OF OVERLAY ROUTING RELAY NODES"** carried out by **SUNITHA N NANDI (1SG11CS086), SUSHMA K (1SG11CS087), USHA B WALI (1SG11CS088), SOWMYA S (1SG10CS078)**, bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs.Madhushree	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"Dynamic Routing for Data Integrity and Delay Differentiate Services in Wireless Sensor Networks"** carried out by RAJU H (1SG11CS064), SATYAM KUMAR (1SG11CS072) ,VASANT RAINA (1SG11CS091), AMIT DEVGAN (1SG10CS007) , bonafide students of **this institute,** in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Pathanjali C	**Dr. C.M.Prashanth**	**Dr. Aswath Kumar M**
Assistant Professor	Professor & Head	Principal , SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
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Bangalore -560 057.

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"A LOAD BALANCING MODEL BASED ON CLO PARTITIONING FOR CLOUD"** carried out by **PRASANNAJIT SHARMA(1SG11CS055), PRA KUMAR SINHA(1SG11CS057), PUSHKAR KUMAR (1SG11CS061), ROUSHAN KUM 1SG10CS066),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelo Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belg** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for int assessment have been incorporated in the report deposited in the department library. The project repor been approved as it satisfies the academic requirements in respect of Project work prescribed for the degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr. VINAY J	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"A LOAD BALANCING MODEL BASED ON CLO PARTITIONING FOR CLOUD"** carried out by **PRASANNAJIT SHARMA(1SG11CS055), PRA KUMAR SINHA(1SG11CS057), PUSHKAR KUMAR (1SG11CS061), ROUSHAN KUM (1SG10CS066),** bonafide students of **this institute,** in partial fulfillment for the award of **Bachelo Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belg** during the academic year **2014-15.** It is certified that all corrections/suggestions indicated for int assessment have been incorporated in the report deposited in the department library. The project repor been approved as it satisfies the academic requirements in respect of Project work prescribed for the degree.

Vinay J 23/04/15		
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. VINAY J	**Dr.C.M.Prashanth**	**Dr.Aswatha Kumar M**
Asst. Professor	Professor & Head	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the Examiners		**Signature with date**
1.....		.....
2.....		.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA", BELAGAVI-590018

SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

It is Certified that the project work report entitled with **"DETERMINATION OF OPTIMUM BINDER CONTENT FOR DENSE GRADED BITUMINOUS MACADAM GRADE-2"** is a bonafied work carried out by team associates **ANJANA JAGADEESH (1SG15CV003), KARTHIK KUTTAPPA B J (1SG15CV022), SHREEJITH R (1SG15CV050), CHANDAN K (1SG16CV403)** in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Mr. AKSHAY J
Asst. Professor

Dr. R L RAMESH
Professor and HOD

Dr. K L SHIVABASAPPA
Principal

HOD, Dept. of Civil Engg.
S.C.E, Bangalore-560 057

Examiner 1: 13/6/19

Examiner 2:

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA ", BELAGAVI - 590018

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

CERTIFICATE

It is Certified that the project work report entitled with "DETERMINATION OF MARSHALL PROPERTIES OF HOT MIX ASPHALT MIXED WITH RECYCLED COARSE AGGREGATE" is a bonafied work carried out by team associates ASLAM IDRISH (1SG15CV004), KONSAM LOYANGAMBA SINGH (1SG15CV024), MAKBOOL (1SG15CV026), SACHIN KUMAR A K (1SG15CV059), in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project work report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:
Mr. AKSHAY J
Assistant Professor

Dr. R.L. RAMESH
Professor and H.O.D
HOD, Dept. of Civil Engg.
S.C.E, Bangalore-560 057

12/06
Dr.K.L SHIVABASAPPA
Principal
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

EXTERNAL EXAMINERS

1. 14/6/19

2.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road, ,
Bangalore-560 057

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA", BELAGAVI-590018

SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

It is Certified that the project work entitled with "PERFORMANCE EVALUATION OF CEMENT CONCRETE SOLID BLOCK BY PARTIAL REPLACEMENT OF FINE AGGREGATES BY SAW DUST AND CHARCOAL" is a bonafied work carried out by team associates **SHARATH** V(1SG15CV046), SHETTY LAVARAJ RAMA(1SG15CV048), V U **AISHWARYA(1SG15CV055)**, PALLAVI S D (1SG16CV408) in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Mrs. NAVYA N
Asst. Professor

Dr. R L RAMESH
Professor and HOD
HOD, Dept. of Civil Engg.
S.C.E, Bangalore-560 057

Dr. K L SHIVABASAPPA
Principal
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

Examiner 1: .....

Examiner 2: 13/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA", BELAGAVI-590018

SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

It is Certified that the project work entitled with **"ANALYSIS AND DESIGN OF INDOOR STADIUM WITH RAINWATER HARVESTING"** is a bonafied work carried out by team associates **ANIL KUMAR REDDY K (1SG15CV002), BHARATH K(1SG15CV007), SARIN BABU R H (1SG15CV045), SHIVAPRASAD H M (1SG15CV049),** in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Mr. PRAMOD K R
Asst. Professor

Dr. R L RAMESH
Professor and HOD

HOD, Dept. of Civil Engg.
S.C.E, Bangalore-560 057.

Dr. K L SHIVABASAPPA
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
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Examiner 1: 14/6/19

Examiner 2: .....

Principal
Sapthagiri College of Engineering
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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA", BELAGAVI-590018

SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

It is Certified that the project work entitled with **"EXPERIMENTAL INVESTIGATION ON CONCRETE WITH RECYCLED AGGRIGATES AS PARTIAL REPLACEMENT FOR COARSE AGGRIGATE"** is a bonafied work carried out by team associates **HARSHITHA V (1SG14CV015), GANGARAJU T (1SG15CV014), M.S.BASAVAPRASAD (1SG16CV402), VINAYA DONDU PATAKARE (1SG16CV413)** in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Mr. RAGHAVENDRA R
Asst. Professor

DR. R.L. RAMESH
Professor and HOD

Dr. K L SHIVABASAPPA
Principal

Examiner 1: ..... 13/6/19.

Examiner 2: ..... 13/6/19.

Principal
Sapthagiri College of Engineering
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Principal
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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA",BELAGAVI -590018.

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the Project work entitled with "STUDIES ON STRENGTH OF VIBRO COMPACTED GEOPOLYMER CONCRETE AND BLOCKS" carried out by team associates Ms.HAMSA.T.N (1SG15CV018), Ms.JAYALAKSHMI.B.L (1SG15CV020), Mr.LINGARAJU Y.K(1SG16CV404) were bonafide students of SAPTHAGIRI COLLEGE OF ENGINEERING BANGALORE in partial fulfilment for the award of degree "BACHELOROF ENGINEERING" in CIVIL ENGINEERING of VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi during the academic year 2018-19. All corrections/suggestions indicated have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree in Civil Engineering.

R.L. Ramesh 13/06/19

Dr.R.L.Ramesh
Professor and HOD

HOD, Dept. of Civil Engg.
S.C.E, Bangalore-560 057

Dr.K.L.Shivabasappa
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

Mr.Col.Vinod.M.Sasalatti
Executive Engineer
BMRCL

External Examiners

1. R.L. Ramesh 14/6/19.
2. Sunil SK 14/6/19

Principal
Sapthagiri College of Engineering
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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"JNANA SANGAMA ", BELAGAVI - 590018

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU- 560057

CERTIFICATE

It is Certified that the project work report entitled with **"A STUDY ON PROPERTIES OF PERVIOUS CONCRETE PAVEMENT FOR ITS USE IN LESS IMPORTANCE ROADS"** is a bonafide work carried out by team associates HARSHITH R (1SG15CV014), MOHANRAJ A (1SG15CV033), ABHISHEK D N (1SG16CV400), RAKSHITH A (1SG16CV409), in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report phase 2 has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

Mrs. PALLAVI G A
Asst Professor
Department of Civil Engineering
S.C.E, Bengaluru.

Dr.R.L.RAMESH
Professor and HOD
Department of civil engineering
S.C.E, Bengaluru.

HOD, Dept. of Civil Engg.
S.C.E, Bangalore-560 057

Dr. K.L SHIVABASAPPA
Principal
S.C.E, Bengaluru.

Principal
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Chikkasandra, Hesaraghatta Road
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Name of the examiners Signature with date
1.
2. 14/6/19

Principal
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DEPARTMENT OF CIVIL ENGINEERING



SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU- 560057

CERTIFICATE

It is Certified that the Project Work entitled with **"EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF CEMENT WITH GGBS AND ZEOLITE TO PRODUCE AN ECO-FRIENDLY CONCRETE "** is a bonafide work carried out by team associates B E PAVAN KUMAR (1SG15CV005), SUSHMITHA A (1SG15CV053), RAMESH KOTIHAL (1SG16CV410), SUSHMITHA D N (1SG16CV412), in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The Project Report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:
Mr. PRAMOD K R
Assistant Professor

Dr. R.L RAMESH
Professor and HOD

HOD, Dept. of Civil Engg.
S.C.E, Bangalore-560 057

13/6/19
Dr. K.L SHIVABASAPPA
Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

EXTERNAL EXAMINERS

1. 13/6/19
2. 13/6/19

Principal
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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
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BENGALURU - 560057

CERTIFICATE

It is Certified that the project workreport entitled with " **ANALYSIS AND DESIGN OF G+3 RESIDENTIAL BUILDING USING STAAD PRO**" is a bonafied work carried out by team associates **KANOJ S V (1SG15CV021),PREM FERNANDES(1SG15CV038), MEGHANA A H (1SG65CV406), YAMINI J(1SG16CV414),** in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** ofVisvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project work report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE: Sanjana G.M
Mrs. SANJANA G M
Assistant Professor

R.L. Ramesh
Dr. R.L. RAMESH
Professor and H.O.D
HOD, Dept. of Civil Engg.
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13/06/19
Dr.K.L SHIVABASAPPA
Principal
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
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EXTERNAL EXAMINERS

1. R.L. Ramesh 13/6/19
2. Sunil SK 13/6/19

Principal
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VISVESVARAYA TECHNOLOGICAL UNIVERSITY
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SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

It is Certified that the project work entitled with "EVALUATION OF PROPERTIES OF BITUMINOUS MIXES WITH PARTIAL REPLACEMENT OF AGGREGATES WITH STEEL SLAG" is a bonafied work carried out by team associates BENAKA KUMAR S (1SG15CV006), NAMRATHA A.V(1SG15CV035), POORVA M.B (1SG15CV036), MAMATA R (1SG16CV405), in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Mr. AKSHAY J
Asst. Professor

Dr. R L RAMESH
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Dr. K L SHIVABASAPPA
Principal

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Examiner 1: .....

Examiner 2: .....

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DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering

CERTIFICATE

It is Certified that the project work entitled with **"APPLICATION OF BACTERIA AS SELF HEALING AGENT IN CONCRETE"** is a bonafied work carried out by team associates **GOWTHAM M (1SG15CV017), MANOJ M (1SG15CV029), PRAKASH S K (1SG15CV037), SACHIN REDDY (1SG15CV042),** in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Mrs. GEETHA T S
Asst. Professor

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DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tommorrow

CERTIFICATE

It is Certified that the project work entitled with "EXPERMENTAL INVESTIGATION ON SELF CURING CONCRETE" is a bonafied work carried out by team associates RAKSHITH GOWDA V (1SG15CV040), SUSHMA L (1SG15CV052), AMRUTHA A G (1SG16CV401), RAVIKUMAR K S (1SG16CV411) in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Mrs. SUMA N G
Asst. Professor

Dr. R L RAMESH
Professor and HOD

Dr. K L SHIVABASAPPA
Principal

Principal
Sapthagiri College of Engineering
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Examiner 1: .....

Examiner 2: 13/6/19

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DEPARTMENT OF CIVIL ENGINEERING

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SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

CERTIFICATE

It is Certified that the project work report entitled with **"BIO-AEROSOLS CONTAMINATION IN AND AROUND SAPTHAGIRI CAMPUS"** is a bonafide work carried out by team associates **GAZI MOHAMMED MANSOOR (1SG15CV015), KISHOR VN (1SG15CV062), SHAFIYA SULTANA N (1SG15CV065)**, in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project work report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:
Mr. DHRUVARAJ M S
Assistant Professor

Dr. R.L. RAMESH
Professor and H.O.D

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14/6

Dr. K.L SHIVABASAPPA
Principal

EXTERNAL EXAMINERS

1. 14/6/19

2. 14/6/19

Principal
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DEPARTMENT OF CIVIL ENGINEERING



SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

CERTIFICATE

It is Certified that the project work report entitled with "EXPERIMENTAL STUDY ON USE RECYCLED PLASTIC AS PARTIAL REPLACEMENT OF COARSE AGGREGATE AND FINE AGGREGATE WITH M-SAND" is a bonafied work carried out by team associates CHETHAN S PATIL (1SG15CV010), RAMYA K V (1SG15CV041),SHYLESH S D (1SG15CV051), VIGNESH RAO S (1SG15CV056), in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project work report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

R.L.Ramesh

Dr. R.L.RAMESH
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EXTERNAL EXAMINERS

1. R.L.Ramesh 14/6/19
2. Sunil S K

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DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING
BENGALURU - 560057

CERTIFICATE

It is Certified that the project work report entitled with **"EFFECT ON BACTERIAL CONCRETE USING SILICA FUME AND RICE HUSK ASH AS PARTIAL REPLACEMENT OF CEMENT"** is a bonafied work carried out by G SAI PRASANNA KUMAR(1SG15CV012),HARSHAN(1SG15CV019),MOHAMMEDRAFEEQ (1SG15CV031), MOHAMMED RIAZ J(1SG15CV032), in partial fulfillment of the requirement for the award of the degree of Bachelor of Engineering in Civil Engineering of Visvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project work report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

Mr. RAJIV T **Asst. Professor**	Dr. R.L. RAMESH **Professor and H.O.D**	Dr.K.L SHIVABASAPPA **Principal**

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1. ..... 13/6/19

2. ..... 17/6/19

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CERTIFICATE

It is Certified that the project work report entitled with " STUDY OF WATER CHARACTERISATION OF CHIKKBANAVARA LAKE" is a bonafied work carried out by team associates **BHAVANI B G (1SG14CV005), CHETHAN REDDY B (1SG15CV061), RANJITH KUMAR S (1SG15CV063), SANDEEP B S (1SG15CV064),** in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project work report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:
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Assistant Professor

Dr. R.L. RAMESH
Professor and H.O.D

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Dr.K.L SHIVABASAPPA
Principal

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DEPARTMENT OF CIVIL ENGINEERING

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College of Engineering
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CERTIFICATE

It is Certified that the project work entitled with "STUDY ON VIBRO-COMPACTED GEOPOLYMER CONCRETE" is a bonafied work carried out by me SWATHI K (1SG15CV054), in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Civil Engineering** of Visvesvaraya Technological University, Belagavi, during the year 2018-2019. All corrections / suggestion indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of academic project prescribed for the Bachelor of Engineering Degree in Civil Engineering.

GUIDE:

Dr. R L RAMESH
Professor and HOD

14/6

Dr. K L SHIVABASAPPA
Principal

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Examiner 2: 14/6/19

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BANGALORE-560057 Karnataka

2017– 2018

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

This is to certify that the project work entitled "**EXPERIMENTAL STUDY ON DBM MIXES WITH PLASTIC**" is carried out by **GURUPRASAD V(1SG14CV013), GOWTHAM H N (1SG14CV012) , N H M VEERAYYA (1SG15CV410)** a bonafide student of Sapthagiri college of Engineering in partial fulfillment for the award of Bachelor of Engineering of the Visvesvaraya Technological University, Belgaum during the year 2017-2018. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report deposited in the department. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. NAVEEN KUMAR S Assistant Professor Dept. of Civil Engineering SCE, Bangalore	**Mrs. SUVARNA P** Professor & Head Dept. of Civil Engineering SCE, Bangalore	**Dr. SHIVABASAPPA K L** Principal SCE, Bangalore

External Viva Voce

Name of the Examiners	**Signature with Date**
1. Suvarna P	14/6/18
2. C. Nagaraj	C. Nagaraj - 14/6/18

Principal
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DEPARTMENT OF CIVIL ENGINEERING

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College of Engineering
Creating Tommorow

CERTIFICATE

This is certified that the project work entitled **"COMPARATIVE STUDY BETWEEN PARTIAL SAWDUST CONCRETE AND PLAIN CONCRETE"** carried out by **Mr. ADITYA SHUBHAM (ISG14CV002), Mr. RAUSHAN KUMAR SINGH (ISG14CV036), Mr. ROHAN RAMAN (ISG14CV038) & Mr. SUNIL SINGH (ISG14CV051)** a bonafide student of Sapthagiri college of Engineering in partial fulfillment for the award of **Bachelor of Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.NAVYA N **Assistant Professor** **Dept. of Civil Engineering** **SCE, Bengaluru-57**	**Mrs.SUVARNA P** **Professor & Head** **Dept. of Civil Engineering** **SCE, Bengaluru-57**	**Dr. K L SHIVABASAPPA** **Principal** **SCE, Bengaluru-57**

Name of the examiner

1: Suvarna P

2: C Nagaraj

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Signature with Date

16/6/18

C Nagaraj 16/6/18

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Department of Civil Engineering

SAPTHAGIRI
College of Engineering
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CERTIFICATE

Certified that the Project work entitled "**STUDIES ON PROPERTIES OF FLY ASH BASED GEO POLYMER CONCRETE**" carried out by **KAVYA C J (1SG14CV020), SALEEM S (1SG14CV044), THIPPESHAPPA V M (1SG14CV052), YUSUF P J (1SG14CV055)** of 8th Semester **Civil Engineering** in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements respect of project work prescribed for the Bachelor of Engineering degree.

14/6/18

Signature of the Guide
Mr. AKSHAY J
Assistant Professor
Dept. of Civil Engineering
SCE, Bengaluru -57

Signature of the HOD
Mrs. SUVARNA P
Professor and HOD
Dept. of Civil Engineering
SCE, Bengaluru -57

Signature of the Principal
Dr. K.L.SHIVABASAPPA
Dept. of Civil Engineering
SCE, Bengaluru -57

External Viva

Name of the Examiners	Signature with Date
1. Suvarna P.	14/6/18
2. C. Nagaraj	C. Nagaraj 14/6/18

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SAPTHAGIRI COLLEGE OF ENGINEERING

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BANGALORE-560057 Karnataka

2017– 2018

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
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CERTIFICATE

This is to certify that the project work entitled **"EVALUATION OF STRENGTH PROPERTIES OF REACTIVE POWDER CONCRETE"** is carried out by **Mr. SAHAS K R (1SG14CV043), Mr. SAMPATH KUMAR B R (1SG14CV045), Mr. SHASHANK M R (1SG15CV416), Mr. SHASHI KUMAR T R (1SG15CV417)** a bonafide student of Sapthagiri college of Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Civil Engineering under **Visvesvaraya Technological University, Belagavi** during the year 2017-2018. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. SUVARNA P Head of the Department Dept. of Civil Engineering SCE, Bangalore	**Mrs. SUVARNA P** Head of the Department Dept. of Civil Engineering SCE, Bangalore	**Dr. K L SHIVABASAPPA** Principal SCE, Bangalore

External Viva Voce

Name of the Examiners	**Signature with Date**
1. Suvarna P	14/6/18
2. C. Nagaraj	C. Nagaraj 14/6/18

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2017– 2018

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

This is to certify that the project work entitled "**EXPERIMENTAL STUDY ON PERFORMANCE OF CONCRETE BY PARTIAL REPLACEMENT OF FINE AGGREGATE WITH CRUMB RUBBER**" is carried out by **KAVITHA BN (1SG14CV019), POOJA TR (1SG14CV033), DIVYA R (1SG15CV402), THEJASWINI BN (1SG15CV418)** a bonafide student of Sapthagiri college of Engineering in partial fulfillment for the award of **Bachelor of Engineering** of the Visvesvaraya Technological University, Belgaum during the year 2017-2018. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report deposited in the department. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide

Mr. RAGHAVENDRA R
Assistant Professor
Dept. of Civil Engineering
SCE,Bangalore

Signature of the HOD

Mrs. SUVARNA P
Professor & Head
Dept. of Civil Engineering
SCE, Bangalore

Signature of the Principal

Dr. SHIVABASAPPA K L
Principal
SCE, Bangalore

External Viva Voce

Name of the Examiners	Signature with Date
1. Suvarna P.	14/6/18
2. C. Nagaraja	C. Nagaraja 14/6/18

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **"SEISMIC ANALYSIS OF MULTISTORIED BUILDING USING SHEAR WALL AND BRACINGS"** is carried out by **Mr. DHARMA U N (USN: 1SG15CV400) Mr. ERANAGOUDA (1SG15CV403) Mr.NANIBABU (1SG15CV409) Mr. NIRANJAN CS(1SG15CV411)** a bonafide student of Sapthagiri college of Engineering in partial fulfillment for the award of **Bachelor of Engineering** of the Visvesvaraya Technological University, Belgaum during the year 2017-2018. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report deposited in the department. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Ms.PALLAVI G A	**Mrs.SUVARNA P**	**Dr. K L SHIVABASAPPA**
Assistant Professor	Professor & Head	Principal
Dept. of Civil Engineering	Dept. of Civil Engineering	SCE, Bangalore
SCE,Bangalore	SCE, Bangalore	

External Viva Voce

Name of the Examiners	Signature with Date
1. Suvarna P.	13/6/18
2. C. Nagaraj	C. Nagaraj 13/6/18

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(Affiliated to Visvesvaraya Technological University, Belgaum)

Department of Civil Engineering

CERTIFICATE

This is to certify that the project Entitled "**LIGHT WEIGHT CONCRETE**"is a bonafide work carried out by **KRUTHI CHANGAPPA(1SG14CV022), MAMANTHESTWARI KS(1SG14CV024), NISHANTH V(1SG14CV031) SACHIN S M(1SG14CV042),** inpartial fulfillment for the award of **Bachelor of Engineering** in Civil Engineering under **Visvesvaraya Technological University, Belagavi** during the year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

12/6/18

Signature of guide

Mr. Akshay J

(Assistant professor)

12/6/18

Signature of HOD

Mrs. Suvarna P

(HOD,Dept of civil)

12/6/18

signature of principal

Dr. K L Shivabasappa

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

Name of the examiner

1: Suvarna P

2: C. Nagaraja

13/6/18

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C. Nagaraja

13/6/18

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Department of Civil Engineering

CERTIFICATE

This is to certify that the project Entitled "**DESIGN AND COMPARISION OF BUBBLE DECK SLAB WITH CONVENTIONAL SLAB**|" is a carried out by **BHARATH B (1SG14CV004), CHANDRU L (1SG14CV007), POOJA M (1SG14CV043) and YOGESH B (1SG15CV420)** a bonafide of Sapthagiri college of engineering in partial fulfilment for the award of **Bachelor of Engineering** in Civil Engineering under **Visvesvaraya Technological University, Belagavi** during the year 2017-2018. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide
Mrs. SUVARNA P
Head of theDept.
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Signature of the Principal
Dr. K L SHIVABASAPPA
SCE, Bengaluru-57

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Signature of the HOD
Mrs. SUVARNA P
Head of the Dept.
Dept. of Civil Engg.
SCE, Bengaluru-57

Name of the examiner

1: Suvarna P.

2: C. Nagaraja

Signature with Date

13/6/18

13/6/18

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DEPARTMENT OF CIVIL ENGINEERING

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College of Engineering
Creating Tommorow

CERTIFICATE

This is certified that the project work entitled "**PARTIAL REPLACEMENT OF COARSE AGGREGATE BY EPS IN CONCRETE** " carried out by **Mr.DEEPAK C GOWDA (1SG14CV008), Mr.GANESH P (1SG14CV010), Mr.KARTHIK KRISHNA M K (1SG14CV017), Mr.SURYAKANTH T S (1SG14CV040)** a bonafide student of Sapthagiri college of Engineering in partial fulfillment for the award of **Bachelor of Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide 12/6/18	Signature of the HOD HOD, Dept. of Civil S.C.E, Bangalore-560 057.	Signature of the Principal
Mrs.GEETHA T S	**Mrs.SUVARNA P**	**Dr. SHIVABASAPPA K L**
Assistant Professor	**Professor & Head**	**Principal**
Dept. of Civil Engineering	**Dept. of Civil Engineering**	**SCE, Bengaluru-57**
SCE, Bengaluru-57	**SCE, Bengaluru-57**	

External Viva

Name of the Examiners	Signature With Date
1. Suvarna P	13/6/18
2. C. Nagaraj	C. Nagaraj 13/6/18

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **"A STUDY ON CHARACTERISTICS AND STRENGTH OF EXPANSIVE SOIL USING FLY ASH AND POLYPROPYLENE FIBRE REINFORCEMENT"** is carried out by **Mr. DHARNESH GOWDA (1SG14CV009), Mr. NANDAN KUMAR TS (1SG14CV028), Mr. SACHIN GR (1SG14CV041), Mr. SUHAS LN (1SG14CV049)** a bonafide students of Sapthagiri college of Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Civil Engineering under **Visvesvaraya Technological University, Belgavi** during the year 2017-2018. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. VINDHYA BHAGAVAN Assistant Professor Dept. of Civil Engineering SCE,Bangalore	**Mrs. SUVARNA P** Professor & Head Dept. of Civil Engineering SCE, Bangalore	**Dr. K L SHIVABASAPPA** Principal SCE, Bangalore

External Viva Voce

Name of the Examiners	**Signature with Date**
1. Suvarna P.	13/6/18
2. C. Nagaraja	C. Nagaraja 13/6/18

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SAPTHAGIRI COLLEGE OF ENGINEERING

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BANGALORE-560057 Karnataka

2017– 2018

DEPARTMENT OF CIVIL ENGINEERING

SAPTHAGIRI
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CERTIFICATE

This is to certify that the project work entitled **"EXPERIMENTAL INVESTIGATION ON STRENGTH OF PERVIOUS CONCRETE"** is carried out by **Mr. DILIP KUMAR B C, GOPAL G, KESHAVA MURTHY C & MOHAN L K** a bonafide student of Sapthagiri college of Engineering in partial fulfillment for the award of **Bachelor of Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2017-2018. It is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report deposited in the department. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. VINDHYA BHAGAVAN	**Mrs. SUVARNA. P**	**Dr. K. L. SHIVABASAPPA**
Assistant Professor	Professor & Head	Principal
Dept. of Civil Engineering	Dept. of Civil Engineering	SCE, Bangalore
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Name of the Examiners	Signature with Date
1. Suvarna P.	14/6/18
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Department of Civil Engineering

SAPTHAGIRI
College of Engineering
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CERTIFICATE

This is to certify that the project Entitled **"A STUDY ON CHARACTERIZATION OF MSW LEACHATE AND ITS TREATMENT METHODS WITH DISPOSAL"** is a bonafide work carried out by **NITHIN KUMAR C T (1SG15CV412), MAHESH KUMAR B (1SG15CV407), ROOPA U (1SG14CV039) RAMYA SHREE R (1SG14CV035),** inpartial fulfillment for the award of **Bachelor of Engineering** in Civil Engineering under **Visvesvaraya Technological University, Belagavi** during the year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of guide
Mr. Naveen Kumar S
assistance professor
Dept. of Civil Engg.
SCE, Bangalore

Signature of HOD
Mrs. Suvarna P
Professor & Head
Dept. of Civil Engineering
SCE, Bangalore

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signature of principal
Dr. K L Shivabasappa
Principal
SCE, Bangalore

Name of the examiner	External Viva Voce	Signature
1: Suvarna P		13/6/18
2: C. Nagaraj		C. Nagaraj 13/6/18

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Department of Civil Engineering

CERTIFICATE

This is to certify that the project Entitled "STUDY ON STRENGTH OF SELF HEALING BACTERIAL CONCRETE" is a carried out by Mr. **ABDUL WAHAB (1SG14CV001), Mr. MANJUNATHA G (1SG14CV025), Mr. MANOHAR B G (1SG14CV026) and Mr. NARESH YADAV (1SG14CV029)** a bonafide students of **Sapthagiri college of engineering** in partial fulfilment for the award of **Bachelor of Engineering** in Civil Engineering under **Visvesvaraya Technological University, Belagavi** during the year 2017-2018. It is certified that all corrections and suggestions indicated for Internal Assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

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Signature of the Guide
Mrs. SUMA N G
Dept. of Civil Engg
Assistant Professor
SCE, Bengaluru-57.

Signature of the Principal
Dr. K L SHIVABASAPPA
SCE, Bengaluru-57

Signature of the HOD
Mrs. SUVARNA P
Head of the Dept
Dept of Civil Engg
SCE, Bengaluru-57

Name of the examiner
1: Suvarna P
2: C. Nagaraj

Signature with Date
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C. Nagaraj 14/6/18

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Evidence Collection from Automobile Black Box using Smart Phone "** carried out by **Ms. Nayana H J (1SG15EC064), Ms. Pavitra (1SG15EC073), Ms. Rajeshwari R (1SG16EC420), Ms. Uma R (1SG16EC429)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Shobha H	Dr. H C Sateesh Kumar	Dr. K L Shivabasappa
Assistant Professor	Professor and HOD	Principal

External Viva

Name of the Examiners	**Signature with date**
1 S SHOBHA	14/6/19
2 C. Rangaswamy	14/6/19

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SAPTHAGIRI
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CERTIFICATE

Certified that the project work entitled **"DESIGN OF ROBOT BASED SMART CAFÉ SYSTEM"** carried out by **Mr. Ganesh G. (1SG16EC411), Ms. Lavanya M. L. (1SG15EC053), Mr. C. S. Adith Kiran (1SG15EC023), Ms. Ann Nileena Henry C. (1SG15EC012)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2018–19**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of ject work prescribed for the said Degree.

Signature of the Guide	Signature of HOD	Signature of Principal
Prof. Agalya P.	**Dr. H. C. Sateesh Kumar**	**Dr. K. L. Shivabasappa**
Associate Professor	Professor & Head	Principal
Department of ECE	Department of ECE	SCE, Bengaluru

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CERTIFICATE

Certified that the project work entitled **"COIN BASED MOBILE CHARGING SYSTEM"** carried out by Ms. SUSHMA K S (1SG15EC121), Ms. SUMITHRA S (1SG15EC122), Mr. SHIVA S (1SG16EC425), Mr. VARUN KUMAR S (1SG16EC431) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
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2. C. Rangaswamy	13/6/19

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Certified that the project work entitled **"RETINAL DISEASE SCREENING THROUGH LOCAL BINARY PATTERN"** carried out by **Ms. Anusha S. (1SG16EC401), Ms. Bharathi Y.C. (1SG16EC408), Ms. Divyashree M.R. (1SG16EC410), Ms. Kavyashree N. (1SG16EC412)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering of the Visvesvaraya Technological University,Belagavi during the year 2018–19.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of HOD	Signature of Principal
Mrs. Shilpa V.	**DR. H. C. Sateesh Kumar**	**DR. K. L. Shivabasappa**
Assistant Professor	Professor & Head	Principal
Department of ECE	Department of ECE	SCE, Bengaluru

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Name of the Examiners	Signature with Date
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"ANTI-THEFT VEHICLE TRACKING SYSTEM USING GSM AND GPS"** carried out by Mr. SAI SIDDHARTH M. (1SG15EC091), Mr. NIKHIL R.A. (1SG15EC067), Mr. RAVI C. (1SG15EC090) and Mr. PRAJWAL K. (1SG15EC076), bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Prathibha P.	Dr. H. C. Sateesh Kumar	Dr. K. L. Shivabasappa
Assistant Professor	Professor & HOD	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru

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2. C. Rangaswamy	

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"AUTOMATIC SPEAKER RECOGNITION"** carried out by Mr. Harsha KB (1SG15EC038),Mr. Karthik K (1SG15EC045), Mr. Girish S (1SG15EC035), Mr. Goutham M (1SG15EC036) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Vani V	Dr. H C Sagesh Kumar	Dr. K.L. Shivabasappa
Assistant Professor	Professor and HOD	Principal

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2. [illegible]	

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**MULTIMEDIA CONTROLLER**" carried out by **Mr. Ankit Priyam (1SG15EC010), Mr. AnuPriye (1SG15EC013)** and **Mr. Dharmkirti Kumar (1SG15EC030)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Agalya Sivakumar	**Dr. H.C. Sateesh Kumar**	**Dr. K. L. Shivabasappa**
Associate Professor	Professor & Head	Principal, SCE
Dept. of ECE, SCE	Dept. of ECE, SCE	

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Name of the Examiners	**Signature with Date**
1.	

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"HOME AUTOMATION USING ARTIFICIAL INTELLIGENCE"** carried out by Mr. Ankit Shivhare (1SG15EC011), Mr. Ashwani Gupta (1SG15EC016) & Mr. Bipul Kumar (1SG15EC022) bonafide students of 8th semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	Signature of HOD	Signature of Principal
Prof. Preethi.T.S	Dr. H.C. Sateesh Kumar	Dr. K L Shivabasappa

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Name of the Examiners	Signature with Date
1. P. Agalya	
2. C. Rangaswamy	

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CERTIFICATE

Certified that the project work entitled **"V CARE HEALTH MONITORING SYSTEM"** carried out by **Mr. Abhishek K. (1SG15EC002), Ms. Chandana DL. (1SG15EC024), Ms. Charitha BM.(1SG15EC026)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2018–19**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

10/6/2019

Signature of the Guide and HOD
DR. H. C. Sateesh Kumar
Professor and Head
Department of ECE

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Signature of Principal
DR. K. L. Shivabasappa
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Certified that the project work entitled "**VEHICLE SECURITY WITH ZONE-WISE SPEED CONTROL**" carried out by **Mr.Abhijith N (1SG15EC001), Mr.Chirag S (1SG15EC027), Mr.Harish C (1SG15EC037), Mr.Manoj G (1SG15EC057)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

10/06/19	10/6/2019	10/6
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Thimmaraja Yadava G	Dr. H C Sateesh Kumar	Dr. K L Shivabasappa
Assistant Professor	Professor and Head	Principal
Dept. of ECE, SCE	Dept. of ECE, SCE	SCE

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Name of the examiners	**Signature with date**
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2. C. Rangaswamy	17/6/19

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CERTIFICATE

Certified that the project work entitled **"AUTOMATIC SPEAKER RECOGNITION"** carried out by Mr. Harsha KB (1SG15EC038),Mr. Karthik K (1SG15EC045), Mr. Girish S (1SG15EC035), Mr. Goutham M (1SG15EC036) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Vani V	Dr. H C Sagesh Kumar	Dr. K.L. Shivabasappa
Assistant Professor	Professor and HOD	Principal

Head of the Department
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Name of the Examiners	**Signature with date**
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CERTIFICATE

Certified that the project work entitled **"Smart IoT Based Water Supply Management System"** carried out by **Ms. Anusha V Murthy (1sg16ec402), Mr. Harshith K Gowda (1sg14ec037), Mr.Manjunatha B (1sg16ec413), Ms. Ramya S K Jadav (1sg13ec131)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering, Bangalore of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ravi Shankara M N	Dr. H.C. Sateesh Kumar	Dr. K.L. Shivabasappa
	10/6/2019	10/6

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Name of the Examiner	**Signature with date**
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2. C. Ravishankar	

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CERTIFICATE

Certified that the project work entitled "**FIRE DETECTION AND EXTINGUISHING ROBOT**" carried out by Mr. VEERESH M (1SG15EC114), Mr. PRUTHVI R (1SG15EC084), Mr.MOHAN VARMA K (1SG15EC061), Mr.VINAYAKA L S (1SG15EC116) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
.....	..... 10.6.2019	..... 10/6/19

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Name of the examiners	Signature with date
.	

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"IoT BASED SMART LIBRARY MANAGEMENT SYSTEM"** carried out by Ms. Ranjitha R (1SG13EC088), Ms. Prema K S (1SG15EC082), Ms. Pooja J (1SG16EC415), Ms. Ramya T K (1SG16EC421) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

..... 11.06.19	..... 11/6/2019	..... 11/06
Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Sangeeta K Siri	**Dr. H.C. Satesh Kumar**	**Dr. K. L. Shivabasappa**
Assistant Professor	Professor & HOD	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru

Head of the Department
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Name of the examiners	Signature with date
1.	11/6/19

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Certified **that** the project work entitled "**ADVANCED E-VOTING SYSTEM.**" carried out by **Mr.ABHISHEK N. (1SG15EC003),Mr. ANJAN O.(1SG15EC009),Mr. B.NIKHILESWAR REDDY (1SG15EC018), Mr. BANADESH (1SG16EC405)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. KARTHIK N.C.	Dr. H. C. SATEESH KUMAR	Dr. K. L. SHIVABASAPPA
Lecturer	Professor & Head	Principal
Dept. Of ECE	Dept. Of ECE	SCE, Bengaluru

External Viva

Name of the Examiners	**Signature with date**
1. S SHOBHA	14/6/19
2. C. Rayaswamy	14/6/19

Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SAPTHAGIRI COLLEGE OF ENGINEERING

Bengaluru – 560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the project work entitled "**SMART WASTE MONITORING AND ALERTING SYSTEM USING IoT**" carried out by Ms. Divya B (1SG15EC032), Ms. Divya R (1SG15EC033), Ms. Smitha B Biradar (1SG15EC105), Ms. Varshini N (1SG15EC113) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

11/6/19.	11/6/2019	11/06
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Shwetha G	**Dr. H.C. Sateesh Kumar**	**Dr. K. L. Shivabasappa**
Assistant Professor	Professor & Head	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru
	Sapthagiri College of Engineering Bangalore-560 057	Sapthagiri College Chikkasandra, Hesaraghatta Road, Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. P. Nagaraja	13/6/19
2. C. Ranjan Reddy	13/6/19

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "V 2 V Communication" carried out by Submitted by NEHA S (1SG15EC065), POOJA S BHAT (1SG15EC075) , SANJANA S (1SG15EC094), SUKANYA KRISHNA POOJARI (1SG15EC108) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering, Bengaluru of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

10/6/2019

Signature of the Guide and HOD

Signature of the Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

External Viva

Name of the examiners	Signature with date
1. P. Agalya	10.6.19
2. C. Rangaswamy	10.6.19

Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.
(Affiliated To VTU, Belagavi & Approved By AICTE, New Delhi)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

Certified that the project work entitled **"DESIGN OF ROBOT BASED SMART CAFÉ SYSTEM"** carried out by **Mr. Ganesh G. (1SG16EC411), Ms. Lavanya M. L. (1SG15EC053), Mr. C. S. Adith Kiran (1SG15EC023), Ms. Ann Nileena Henry C. (1SG15EC012)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2018–19**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of HOD	Signature of Principal
Prof. Agalya P.	**Dr. H. C. Sateesh Kumar**	**Dr. K. L. Shivabasappa**
Associate Professor	Professor & Head	Principal
Department of ECE	Department of ECE	SCE, Bengaluru

10/6/2019

External Viva

Name of the Examiners	Signature with Date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
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SAPTHAGIRI
College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"LI-FI BASED DATA AND AUDIO COMMUNICATION"** carried out by **Ms. POOJA R (1SG15EC074), Ms. PRIYADARSHINI C (1SG15EC083), Ms. REKHA R (1SG15EC085)** and **Mr. R PRASHANTH (1SG16EC418)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Suma V Shetty 10/6/2019

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Suma V Shetty	Dr. H C Sateesh Kumar	Dr. K. Bhimaraja

Head of the Department
Electronics & Communication Engineering
Sapthagiri College of Engineering
Bangalore -560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

External Viva

Name of the Examiners	Signature with Date
1. P. Agalya	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SAPTHAGIRI COLLEGE OF ENGINEERING

Bengaluru – 560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the project work entitled "**SMART WASTE MONITORING AND ALERTING SYSTEM USING IoT**" carried out by Ms. Divya B (1SG15EC032), Ms. Divya R (1SG15EC033), Ms. Smitha B Biradar (1SG15EC105), Ms. Varshini N (1SG15EC113) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Shwetha G	**Dr. H.C. Sateesh Kumar**	**Dr. K. L. Shivabasappa**
Assistant Professor	Professor & Head	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru

External Viva

Name of the examiners	Signature with date
1. P. Ngalya	
2. L. Ranga Swamy	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
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Crossing Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "BLINK TALK COMMUNICATION USING BRAINSENSE FOR PARALYZED PEOPLE" carried out by by Ms. Kavyashree G S (1SG15EC046), Ms. Geetha M (1SG15EC034), Ms. Niveditha S (1SG15EC071), Ms. Harshitha L (1SG15EC039) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering of the Visvesvaraya Technological University,Belagavi during the year 2018-19.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of HOD	Signature of Principal
Prof. Padmavathi C	**Dr. H.C. Santosh Kumar**	**Dr. K.L. Shivabasappa**
Assistant Professor	Professor& Head	Principal
Dept of ECE	Dept of ECE	SCE, Bengaluru

Name of the Examiners	Signature with Date
1.	
2.	

Principal
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SAPTHAGIRI
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"SMART SPEAKING GLOVE FOR SPEECH IMPAIRED PEOPLE"**, carried out by **Ms. MEGHANA A S (1SG15ECO59), Ms. NIVEDITHA M (1SG15EC070), Ms. PRATHIBHA K (1SG15EC081), Ms. RAKSHA G R (1SG15EC087)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

10/6/2019

Signature of the Guide & HOD

Dr. H.C. Satesh Kumar

Professor & Head,

Dept. of ECE

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

10/6/19

Signature of the Principal

Dr. K. L. Shivabasappa

Principal,

SCE, Bengaluru

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1. P. Agaly	
2.	

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"QR CODE AND CLOUD BASED HOME SECURITY SYSTEM USING RASPBERRY PI"**, carried out by SAILESH S. (1SG14EC085), PRAMUKH H M. (1SG14EC417), PAVAN N. (1SG15EC414), GODI SAHITHI. (1SG14EC034), bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering of the Visvesvaraya Technological University,** Belgavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
14/6/19.	14/6/2019	14/06
Mrs. Shwetha G.	Dr. Sateesh Kumar	Dr. K.L. Shivabasappa
Assistant Professor, Dept of ECE	HOD, Dept of ECE	Principal, SCE, Bangalore

Head of the Department
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Sapthagiri College of Engineering
Bangalore- 560 057

Principal
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Bangalore- 560 057

External Viva

Name of the examiners	Signature with date
1.	
2. C. Rangeswamy	

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Stock Monitoring And Secure Shopping System**", carried out by Sanjay S Joshi (1SG15EC427), Bhojanna K T (1SG15EC405), Sujith Kumar R (1SG15EC431), Anirudh Singh Chauhan (1SG14EC012) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
14/06/19	14/6/2019	14/6

External Viva

Name of the examiners	Signature with date
1. S SHARMA	17/6/19
2. C. Rangaswamy	17/6/19

Principal
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SAPTHAGIRI
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"CONTENT BASED IMAGE RETRIEVAL FRAME WORK USING COLOR DESCRIPTOR"** carried out by Mrs. BHAVYA.S (1SG15EC404), Mrs. PRIYANK.B (1SG15EC418), Mrs. SOUMYA.Y.B (1SG15EC430) and Mrs. SHUSHRUTHA.B (1SG15EC429) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

15/6/19

Signature of the Guide
Mrs. PreethiTS
Assistant Professor
Dept. ECE, SCE

17/6/2019

Signature of the HOD
Dr. H C Sateesh Kumar
Head of the department
Dept. ECE, SCE

Signature of the Principal
Dr. K. L. Shivabasappa
Principal of SCE

External Viva

Name of the examiners	Signature with date
1. S.S. SHOBHA	17/6/19
2. C. Rangaswamy	17/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI
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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**FIRE DETECTION AND EXTINGUISHING ROBOT**" carried out by Mr. VEERESH M (1SG15EC114), Mr. PRUTHVI R (1SG15EC084), Mr.MOHAN VARMA K (1SG15EC061), Mr.VINAYAKA L S (1SG15EC116) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
	10/6/2019	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
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External Viva

Name of the examiners	Signature with date
1. P. Agalya	
2. C. Rangaswamy	11/6/19

Principal
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SAPTHAGIRI
College of Engineering
Creating Tomorrow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "AUTOMATED PLANTATION SYSTEM" carried out by **Mr. Koslender Singh (1SG15EC048), Mr. Nishant Kumar (1SG15EC69), Mr. Shashank Shekhar (1SG15EC099)** and **Ms. Vaishnavi R Shetty (1SG15EC112)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Shobha. H	**Dr. H.C. Sateesh Kumar**	**Dr. N.L. Shivabasappa**
Assistant Professor	Professor & Head	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru

Head of the Department
Electronics & Communication Engineering
Sapthagiri College of Engineering
Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

External Viva

Name of the Examiners	Signature with Date
1. P. Agalya	
2. C. Rangaswamy	

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
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Creating Tomorrows

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"FACE RECOGNITION BASED ATTENDANCE SYSTEM"** carried out by **Mr. Akhil Singh (1SG15EC007), Mr. Himanshu Tiwari (1SG15EC041), Mr. Kiran R (1SG15EC047), Mr. Lingaraju L (1SG15EC054)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Shobha S	Dr. H C Sateesh Kumar	Dr. K L Shivabasappa
Associate Professor	Professor and HOD	Principal
Dept. of ECE, SCE	Dept. of ECE, SCE	SCE, Bengaluru

Head of the Department
Electronics & Communication Engineering
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Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

External Viva

Name of the Examiners	**Signature with date**
1. P. Agalya	
2. C. Rajeshwary	

Sapthagiri College of Engineering
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SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**AGRICULTURAL FIELD MONITORING USING QUADCOPTER**". carried out by Ms. Bhoomika J (1SG15EC020), Ms. Kannika Hegde (1SG15EC044), Ms. Koushalya D (1SG15EC051), bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Ravi Shankara M N	Dr. H C Saleesh Kumar	Dr. K L Shivabasappa

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

External Viva

Name of the examiners:	Signature with date:
1 P. Anitha	

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tomorrow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"ANTI-THEFT VEHICLE TRACKING SYSTEM USING GSM AND GPS"** carried out by Mr. SAI SIDDHARTH M. (1SG15EC091), Mr. NIKHIL R.A. (1SG15EC067), Mr. RAVI C. (1SG15EC090) and Mr. PRAJWAL K. (1SG15EC076), bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

.....	10/6/2019	10/6/19 .....
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Prathibha P.	Dr. H. C. Sateesh Kumar	Dr. K. L. Sivabasappa
Assistant Professor	Professor & HOD	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1.	
2.	

Sapthagiri College of Engineering
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SAPTHAGIRI
College of Engineering
Creating Tomorrow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"IoT BASED SMART LIBRARY MANAGEMENT SYSTEM"** carried out by Ms. Ranjitha R (1SG13EC088), Ms. Prema K S (1SG15EC082), Ms. Pooja J (1SG16EC415), Ms. Ramya T K (1SG16EC421) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

11.06.19	11/6/2019	11/06
Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Sangeeta K Siri	**Dr. H. C. Sateesh Kumar**	**Dr. K. L. Shivabasappa**
Assistant Professor	Professor & HOD	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru

External Viva

Name of the examiners	Signature with date
1. S Shobha	17/6/19
2. C. Rangaswamy	17/6/19

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"STITCHING OF VIDEOS CAPTURED BY MOBILE CAMERAS"** carried out by **Ms. PRIYANKA S RAO (1SG14EC067), Ms. RASHMI S (1SG14EC072) Ms. RESHMA M (1SG14EC080),** and **Ms. SHREE RAKSHA V (1SG14EC092)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
(Prof. Sandhya Rani M.H.)	(Prof. Sandhya Rani M.H.)	(Dr. K L Shivabasappa)
(HOD, Dept of ECE)	(HOD, Dept of ECE)	(Principal)

External Viva

Name of the examiners	Signature with date
1. RAVISHANKARA. M.N.	14/6/18
2. Jayalaxmi H	14/6/18

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SAPTHAGIRI
College of Engineering
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CERTIFICATE

This is to certify that **KOKILA.B.PADEPPAGOL (1SG16LVS01)** has satisfactorily Completed the Project work entitled **"Design and Implementation of Stego Image Encoding and Decoding System using Lifting based Wavelet and Adaptive LSB Method on FPGA"**, in partial fulfillment of the requirements as prescribed by the **Visveswaraya Technological University** for **IV semester, Master of Technology in VLSI Design & Embedded Systems** during the year 2017 – 18. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library.

Signature of the Guide	Signature of H O D	Signature of Principal
Mrs. Sandhya Rani M H	Mrs. Sandhya Rani M H	Dr. K L Shivabasappa
Associate Professor & HOD	Associate Professor & HOD	Principal
Dept. of ECE	Dept. of ECE	SCE, Bangalore

10/8/18

10/08/2018

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalor, 560057

External viva

Name of the Examiners	Signature
1. Sandhya Rani M H	20/08/18
2.	

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI
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14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"HAND GESTURE CONTROLLED ROBOTIC ARM"** carried out by **Mr. RAHUL KUMAR SINGH (1SG14EC070), Mr. SHUBHAM KUMAR (1SG14EC094), Mr. SUNIL KUMAR (1SG14EC099)** and **Mr. UDIT KUMAR (1SG14EC105)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr. Karthik N.C.	Mrs. Sandhya Rani M.H.	Dr. K. L. Shivabasappa
Lecturer, Dept. of E.C.E.	Associate Professor and HOD	Principal

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M.H.	
2. Raghunath S.V	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road.
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Speech Based Access of Weather Information in Kannada Language/Dialects**", carried out by Ms. Charishma B B(1SG14EC025), Ms. Deepika Battula (1SG15EC028), Ms. Chaitra R (1SG14EC022), Ms. Ranjitha PK(1SG13EC087) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr. SATISH MURTHY	Mrs. SANDHYA RANI M.H	Dr. K.L SHIVABASAPPA
01/06/18	02/06/18	2/6/18

Signature of the co-Guide

Mr. THIMMARAJA YADAVA G

External Viva

Name of the examiners	Signature with Date
1. Sandhya Rani M.H.	12/6/18
2. Raghunath B.H	

Principal
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Bengaluru-560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Campus Navigator with Speech Assistance"**, arried out by **Gagan Reddy A. (1SG14EC031), Hemanth Raju T. (1SG14EC038), Arun Kumar R. (1SG15EC403)**, bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi** during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	14/6/2018 **Signature of the HOD**	**Signature of the Principa**
Mrs. Prathibha.P.	Mrs. Sandhya Rani.M.H.	Dr. K.L.Shivabasappa
Assistant Professor, Dept of ECE	HOD, Dept of ECE	Principal, SCE, Bengaluru

External Viva

Name of the examiners	**Signature with date**
1. RAVISHANKARA · M.N	
2.	

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**VENDING MACHINE USING RFID TECHNOLOGY**", carried out by **POOJA B C (1SG14EC062), SUSHMITHA P (1SG14EC101), V PRAVALIKA (1SG14EC108), RAKSHITHA M R (1SG15EC421)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
(Mr. Ravi Shankara M N)	(Mrs. Sandhya Rani.M.H)	(Dr. K.L.Shivabasappa)
(Associate Professor)	(Associate professor and HOD)	(Principal)

12/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

External Viva

Name of the examiners	**Signature with date**
1. Sandhya Rani M.H.	12/06/2018
2. Raghunath B.M	12/6/18

Principal
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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Fingerprint Based Vehicle Ignition System**", carried out by **Akshay V.(1SG14EC008), Nagesh K.L.(1SG14EC056), Chethan M.K.(1SG15EC408), Raghavendra R.(1SG15EC419)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide | Signature of the HOD 7/6/18 | Signature of the Principal 7/6/18

External Viva

Name of the examiners

1. Sandhya Rani M.H.
2. Raghunath B.M

Signature with date 12/6/18

Principal
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Bus Frequency Optimization by avoiding bus bunching using wireless network**", carried out by **Praneeth Yaji (1SG14EC0665), Shivaraj Masali (1SG14EC091), Puneeth N K (1SG14EC116), Reetesh (1SG13EC090)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	14/06/2018 **Signature of the HOD**	**Signature of the Principal**
Mrs.Prathibha P.	Mrs.Sandhya Rani M.H.	Dr.K.L.Shivabasappa
Assistant Proffessor,ECE	HOD,ECE	Principal
SCE, Bangalore	SCE, Bangalore	SCE,Bangalore

External Viva

Name of the examiners	**Signature with date**
1. RAVI SHANKARA. M.N	15/6/18
2.	15/6/18

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"REAL TIME WIRELESS ECG MONITORING SYSTEM"** carried out by **Vivekananda B K (1SG14EC114), Sudarshanpatil G S (1SG14EC097), Vishwas H (1SG14EC112), Rakesh P (1SG12EC080)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

13.06.2018

Signature of the Guide
Sangeeta K Siri
Assistant professor
Dept. of ECE
SCE, Bengaluru

13/06/2018

Signature of the HOD
Sandhya Rani M H
Associate Professor & HOD
Dept. of ECE
SCE, Bengaluru

Signature of Principal
Dr. K L Shivabasappa
Principal
SCE, Bengaluru

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M H	13/06/2018

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**WIRELESS TOUCHSCREEN BASED HOME AUTOMATION FOR BLIND**" carried out by **Suhas K R (1SG14EC098), Vipul P (1SG14EC111), Ranjith Shastry M (1SG14EC075), Prabith (1SG14EC063)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of Principal
Preethi T S	Sandhya Rani M H	Dr. K L Shivabasappa
Assistant professor	Associate Professor & HOD	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru
SCE, Bengaluru	SCE, Bengaluru	

12/6/18 12/06/2018

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M H	13/06/2018

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Assistive device for blind, dumb and deaf using Raspberry-Pi**", carried out by Mr. Ramesh R(1SG14EC073), Mr. Rahul S(1SG14EC071), Ms. Varsha H(1SG14EC109), Ms. Soundarya M(1SG14EC096) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide

11/06/2018
Signature of the HOD

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore 560 057

14/6/18
Signature of the Principal

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

External Viva

Name of the examiners **Signature with date**

1 RAVISHANKARA. M.N
2. Jayalaxmi. H

14/6/18
14/6/18

Principal
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14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

ertified that the project work entitled **"IOT BASED RAILWAY TRACK CRACK DETECTION YSTEM"** carried out by **Mr. ABHISHEK GAURAV (1SG13EC004), Mr. ARCHIT SAURYA SG13EC019), Mr. DIPEN KUNDU (1SG13EC029)** and **Mr. MANISH KUMAR (1SG13EC051)** onafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for e award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya echnological University**, Belgavi during the year 2017-18. It is certified that all corrections/suggestions idicated for Internal Assessment have been incorporated in the Report deposited in the departmental brary. The project report has been approved as it satisfies the academic requirements in respect of Project ork prescribed for the said Degree.

Vinay H.C. 13/06/18	14/06/2018	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Vinay H.C.	**Mrs. Sandhya Rani M.H.**	**Dr. K. L. Shivabasappa**
Assistant Professor	**Associate Professor and HOD**	**Principal**

External Viva

Name of the examiners	Signature with date
1. RAVI SHANKARA. M.N.	15/6/18
2. Jayalaxmi H.	15/6/18

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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"ROAD SAFETY BY SIGN BOARD DETECTION AND ANTI-ACCELERATION FEATURE"** carried out by **Ms. Chaithra K. (1SG14EC021), Ms. Chandana G. (1SG14EC024), and Mr. Chandan S. (1SG14EC023), Ms. Pooja M.S.(1SG15EC415)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

05/6/18
Signature of the Guide
Mr. Karthik N.C.
Lecturer, Dept. of E.C.E.

05/06/18
Signature of the HOD
Mrs. Sandhya Rani M.H.
H.O.D., Dept. of E.C.E.

5/6/18
Signature of the Principal
Dr. K.L. Shivabasappa
Principal

External Viva

Name of the examiners	Signature with date
1. RAVISHANKARA. M.N	14/6/18
2. Jayalaxmi H	14/6/18

Principal
Sapthagiri College of Engineering
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College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project entitled **"A REAL TIME COST-EFFECTIVE VIDEO OCULOGRAPHIC SYSTEM TO ASSIST THE MOVEMENT OF THE PARALYSED"** carried out by Ms.PRIYA.B.U(1SG13EC073), Ms.SAHANA.N(1SG13EC094), Ms.SHREYA.K.GURIKAR(1SG13EC103), bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library .The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.Shobha.H	Mrs.Sandhya Rani.M.H.	Dr.Aswatha Kumar M,
Assistant Professor	Assoc.Prof. & HOD	Principal
SCE,Bangalore	SCE,Bangalore	SCE,Bangalore

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Sapthagiri College of Engineering
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External Viva

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

Name of the examiners	Signature with date
1. Sandhya Rani. M.H	23/06/2017

SAPTHAGIRI
College of Engineering
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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**School Van Monitoring System**" carried out by **Mr. Dashavanth K (1SG13EC028), Mr. Bonnesh P (1SG13EC066), Mr. Siddhilesh S V (1SG13EC130), Mr. Gangaram B Padolkar (1SG14EC406)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belgavi** during the year **2016-17**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

6/6/17

Signature of the Guide

6/6/17

Signature of the HOD

Electronics & Communication Engineering
Sapthagiri College of Engineering
Bangalore-560 057

Signature of the Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

External Viva

Name of the examiners **Signature with date**

1. Sandhya Rani M.H.
2. Dr T.S. Jayashree

Principal
Sapthagiri College of Engineering
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Bangalore - 560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the project work entitled "**Area–Delay-Power Efficient Carry-Select Adder using Franklin Boolean Logic**" carried out by **Mr. Prashant Kumar Rajput (1SG13EC070) Mr. Pravesh P. Jain (1SG13EC071), Mr. Rahul Kumar V. (1SG13EC082) & Mr. Rakesh M. Peddi (1SG13EC086)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

06/6/17	6/6/2017	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Shobha H	**Mrs. Sandhya Rani M H**	**Dr. Aswatha Kumar M**

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
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External Viva

Name of the examiners **Signature with date**

1. Nagesh L
2. P. Ajalya

27/6/17

Head of the Department
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Engineering

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057
Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Implementation of a Reed Solomon Encoder and Decoder in MATLAB**" carried out by Ms. Priyanka G. (1SG13EC077), Shruthi B. (1SG13EC104), Swati Chougala (1SG14EC420) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvarya Technological University, Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

1. 6.6.17
2. 07/06/17

Signature of the Guides

6/6/2017
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore

Signature of the HOD

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

Signature of the Principal

Name of the examiners

1. Sandhya Rani M.H.
2. Dr T.S. Jayadev

Signature with date

23/06/2017

23/6/17

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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**DENOISING OF IMPULSE AND GAUSSIAN NOISE IN COLOR IMAGES USING FUZZY FILTERS**", carried out by Ms.AISHWARYA R.(1SG13EC007), Ms.ARPITHA H. S.(1SG13EC021), Ms.KAVYASHREE K.T. (1SG13EC040), Ms.KOMALA B. (1SG13EC042) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Agalya P.	Prof. Sandhya Rani M.H.	Dr. Aswatha Kumar M.
Associate Professor	Associate Professor and HOD	Principal, SCE

Prof. Chaitra P.
Assistant Professor

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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External Viva

Name of the examiners	**Signature with date**
1. Sandhya Rani M.H	23/06/2017
2. Dr T.S. Jayadeva	

Principal
Sapthagiri College of Engineering
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Virtual Shuffling Keypad and GSM Technology For Secure ATMs"** carried out by **Mr. P. PRAJWAL (1SG13EC067), Mr. RAKESH J. (1SG13EC085), Mr. SANJAY M.E. (1SG13EC096), Mr. YOGESH N. (1SG13EC126)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

07/6/17

Signature of the Guide
Mr. Karthik N.C.
Lecturer, Dept. of E.C.E.

07/06/2017

Signature of the H.O.D.
Prof. Sandhya Rani M.H.
H.O.D., Dept. of E.C.E.

Signature of the Principal
Dr. Aswatha Kumar M.
Principal

External Viva

Name of the examiners

1. P. Agalya
2. Nagesh.L

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

Signature with date

28/6.

28/6

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Microcontroller based neural network controlled low cost autonomous vehicle"** carried out by **Ms.Anupama M.A. (1SG13EC017), Ms.Nagaveni H. (1SG13EC057), Ms.Harini C. (1SG14EC407), Ms.Harshitha B.N. (1SG14EC408)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
(Mrs. Sangeeta K Siri)	(Mrs.Sandhya Rani.M.H)	(Dr.Aswatha Kumar.M)
Asst.Professor	Associate prof & HOD	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057
ECE Dept, ECE	ECE Dept, ECE	

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
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External Viva

Name of the examiners	Signature with date
1 Sandhya Rani M.H.	24/06/17
2. Dr T.S. Jayashree	

Principal
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"LI-FI BASED INTELLIGENT VOICE COMMUNICATION"** carried out by **Ms. ANJALI RAJ (1SG13EC015), Ms. ARCHANA PANIGRAHI (1SG13EC018), Mr. HARSH KOTHARI (1SG13EC033)** and **Ms. KHUSHBU (1SG13EC041)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi** during the year **2016-17**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ravishankara M N	Prof. Sandhya Rani M H	Dr. Aswatha Kumar M.
Prof. Vijayalakshmi K M		

External Viva

Name of the Examiners	**Signature with Date**
1. Sandhya Rani M.H	23/06/2017
2. Dr T.S. Jayadeva	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"ENERGY MANAGEMENT WITH POWER LINE COMMUNICATION"** carried out by **Mr. SUPRITH M. (1SG13EC113), Mr. VENKATESH G. (1SG13EC120), Mr. YASHAWANTH K. HEGDE (1SG13EC125)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is also certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the HOD

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Signature of the Principal

External Viva

Name of the examiners

1. Nagesh R
2. P. Agalya

Signature with date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"INTELLIGENT PETROL BUNK"** carried out by **CHANDRASHEKARA GOWDA P. (1SG14EC403), ESHWAR M (1SG14EC405), KARTHIK H R (1SG13EC038), MAHADEVA N. (1SG13EC049)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide | **Signature of HOD** 6/6/2017 | **Signature of Principal**

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"INTELLIGENT PETROL BUNK"** carried out by **CHANDRASHEKARA GOWDA P. (1SG14EC403), ESHWAR M (1SG14EC405), KARTHIK H R (1SG13EC038), MAHADEVA N. (1SG13EC049)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide | **Signature of HOD** 6/6/2017 | **Signature of Principal**

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners		Signature with date
1 Nagesh. L		
2. P. Agalya		

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"School Van Monitoring System"** carried out by **Mr. Dashavanth K (1SG13EC028), Mr. Bounesh P (1SG13EC066), Mr. Nikkhilesh S V (1SG13EC130), Mr. Gangaram B Padolkar (1SG14EC406)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belgavi** during the year **2016-17**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
6/6/17	Head of the Department Electronics & Communication Engineering Sapthagiri College of Engineering Bangalore-560 057.	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M.H.	24/06/2017
2. Dr T.S. Jayadevi	

Principal
Sapthagiri College of Engineering
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2016-17

Department of Electronics and Communication Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bangalore– 560057

CERTIFICATE

Certified that the project work entitled **"BIOMETRIC APPROACH FOR SECURED ATM TRANSACTIONS"** carried out by **Mr. BABA FAKRUDDIN R(1SG13EC023), Mr. BHARATH V(1SG13EC025), Mr. GAUTHAM N(1SG13EC127), Mr. GUNA SHEKAR G (1SG13EC031)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgaum during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

6/6/17 6/6/2017

Signature of Guide **Signature of HOD** **Signature of Principal**

External Viva

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Name of the examiners with date	**Signature**
1. Sandhya Rani M.H.	
2. Dr T.S. Jayadevi	21/06/17

Principal
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"DENSITY BASED TRAFFIC SYSTEM WITH EMERGENCY OVERRIDE USING RFID"** carried out by Mr. **Saroj Kumar Singh(1SG13EC097), Vikas Mudgal(1SG13EC121), Sharique Anwar(1SG13EC099), Vivek Kumar Singh(1SG12EC120)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belgavi** during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Vani. V 07/06/17	07/06/2017	
Mrs. Vani V.	Mrs. Sandhya Rani M.H.	Dr. Aswatha Kumar M.
Asst. Professor	Head of the Department	Principal
Dept. of ECE	Electronics & Communication	Dr. Aswatha Kumar. M Principal
SCE, Bengaluru	Sapthagiri College of Engineering Bangalore-560 057	SCE, Bengaluru Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. Sandhya Rani M.H.	24/06/17

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"DOMOTICS CONTROL WITH WAVE OF HAND USING MSP430"** carried out by **Mr. Akash Prabhakar (1SG13EC008), Mr. Ali Asgar Khan (1SG13EC011), Mr. Ankur Anand (1SG13EC016), Mr. Anup Kumar (1SG13EC128)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof.Jayadeva D.B.	Prof. Sandhya Rani M.H.	Dr. Aswath Kumar.M.
	Head of the Department Electronics & Communication Sapthagiri College of Engineering Bangalore- 560 057.	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road, Bangalore- 560 057

External Viva

Name of the examiners	Signature with date
1. Nagesh L	
2. P. Nagaraja	

Principal
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"DOMOTICS CONTROL WITH WAVE OF HAND USING MSP430"** carried out by **Mr. Akash Prabhakar (1SG13EC008), Mr. Ali Asgar Khan (1SG13EC011), Mr. Ankur Anand (1SG13EC016), Mr. Anup Kumar (1SG13EC128)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof.Jayadeva D.B.	Prof. Sandhya Rani M.H.	Dr. Aswath Kumar M.

06/06/17 6/6/2017

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore -560 057.

External Viva

Name of the examiners	Signature with date
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2.	

Principal
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Query adaptive object search using object proposals and shape aware descriptors"** carried out by Mr. A Nithin Kumar (1SG13EC001), Ms. Chithra H S (1SG13EC027), Ms. Kavana S Theertha (1SG13EC039) and Mr. Raju B L (1SG13EC129), bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide

06/06/2017
Signature of the HOD
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal
Dr. Aswatha Kumar.
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore-560 057

External Viva

Name of the examiners,

Signature with date

1. Sandhya Rani M.H.
2. Dr T.S. Jayadeva

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
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23/06/2017
23/06/17

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14/5, Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"MACHINE VISION BASED TECHNIQUES FOR AUTOMATIC MANGO SORTING AND GRADING BASED ON MATURITY LEVEL AND SIZE"**. Carried out by **Mr. Rakesh Bhat K.H. (1SG13EC084), Mr.Srinivas. (1SG14EC418), Mr. Sachin S. (1SG14EC416), Mr. Ravi K. (1SG14EC415)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of HOD**	**Signature of Principal**
Mrs. Prathibha P.	26/06/2017 Head of the Department Electronics & Communication Sapthagiri College of Engineering Bangalore-560 057	**Dr. Aswatha Kumar M.** Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. P. Agalya	
2. Nagesh	

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI
College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"AUTOMATED BOOK PICKING ROBOT FOR LIBRARIES"** carried out by **Ms. Roopaishwarya T.B. (1SG13EC092), Ms. Varalakshmi H. C. (1SG13EC118), Ms. Priya K.R (1SG13EC074)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of Bachelor of Engineering in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgavi during the year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

6/6/17

Signature of the Guide

06/06/2017

Signature of the HOD

Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

Name of the examiners

Signature with date

1. Sandhya Rani M.H.

24/06/2017

2. Dr T.S. Jayadeva

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
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Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Implementation of Redundant Carry Save Adders on FPGA"** carried out by Mr. Karan Bharti (1SG13EC037), Ms. Minakshi Kumari (1SG13EC055), Ms. Namrata (1SG13EC058) & Ms. Neha Kamath G (1SG13EC061) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide
(Prof. Sudha M S)

Signature of the HOD
Head of the Department
(Mrs. Sandhya Rani M H)
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Signature of Principal
(Dr. Aswatha Kumar M)
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

External Viva

Name of the examiners **Signature with date**

1:
2.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
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SAPTHAGIRI COLLEGE OF ENGINEERING14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"SAFETY ALERT SYSTEM IN TRANSPORTATION"** carried out by **Mr. ABHILASH N. (1SG13EC003), Mr. AMITH HV. (1SG14EC400), Ms.CHAITHRA N. (1SG14EC402), Ms.VEENA R. (1SG13EC119)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year **2016-17**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
23/06/17	23/06/2017	

Sapthagiri College of Engineering
Bangalore-560 057.

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M.H.	24/06/17
2. Dr T.S. Jayadeva	24/06/17

Principal
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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"SUBSTATION AUTOMATION USING INTELLIGENT ELECTRONIC DEVICES"**, carried out by **Archana O.V (1SG12EC015), Arshiya Tabassum (1SG12EC019), C. N. Laksith (1SG12EC028), P. Priyadarshini (1SG12EC067)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

18/5/16.

Signature of the Guide

18/05/2016

Signature of the HOD
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineerin
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the examiners

1. RAVISHANKARA. M.N
2. Keshavamurthy

Signature with date

11/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"VIDEO TAMPERING DETECTION USING WATERMARKING"** carried out by **Salil Kumar Gupta (1SG12EC092), Saurav Nirala (1SG12EC097), Trilok Kumar (1SG12EC111), Vivek Anand (1SG12EC117)** bonafide student of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of Principal**
Ravi Shankara M N	Mrs. Sandhya Rani M.H.	Dr. Aswatha Kumar M.
Associate professor	Associate professor	Principal
Dept. ECE	Dept. ECE	SCE, Bengaluru
SCE, Bengaluru	SCE, Bengaluru	

17/05/16

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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External Viva

Name of the examiners	**Signature with date**
1.	
2.	

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled, **"DESIGNING OF AN EFFICIENT DATA HIDING TECHNIQUE FOR H.264/AVC VIDEO STREAM BY CODEWORDS SUBSTITUTION"** carried out by **Nitish Kumar (1SG12EC066), Praveen Shashwat (1SG12EC073) Rajeev Ranjan Mishra (1SG12EC079), Ronit Singh (1SG12EC087)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of degree in **Bachelor of Engineering** in **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University,** Belagavi during the year **2015-16.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of Principal**
Sudha M.S	Sandhya Rani M.H.	Dr. Aswatha Kumar M.
Assistant professor	Associate professor and HOD	Principal
Dept. of ECE	Dept. of ECE, SCE, Bengaluru	Sapthagiri College of Engineering
SCE, Bengaluru		No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bengaluru-560 057

23/05/2016

External Viva

Name of the examiners	**Signature with date**
1. RAVISHANKARA. M.N	11/6/16
2. Keshavamurthy	11/6/2016

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College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department Of Electronics And Communication Engineering

CERTIFICATE

Certified that the Project work entitled **"Design of High Speed Multiplier for 32-bit MAC and Convolution Unit using Vedic Sutras"** carried out by **Ms. Asswini D (1SG09EC009), Ms. Chaitra D. N (1SG13EC406), Ms. Nandini N. P (1SG12EC057), Ms. Priyanka B. M (1SG12EC074),** bonafide student of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the Year 2015-2016. It is certified that all corrections /suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Shilpa V.	Dr. Sowmya Rani M. H.	Dr.Aswatha Kumar M.
	Head of the Department Electronics & Communication Sapthagiri College of Engineering Bangalore-560 057	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Zigbee Based Wireless Sensor Network for Pollution Monitoring in Vehicles"**, carried out by Anurag Kumar(1SG12EC011), Anand Vardhan.(1SG12EC008), Ajeet Kumar (1SG12EC004), Chandresh Vikram (1SG12EC029) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
	Head of the Department Electronics & Communication Sapthagiri College of Engineering Bangalore-560 057	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**SEEDING AGRICULTURAL ROBOT**" carried out by **APOORVA S (1SG12EC013), ASHA N G (1SG12EC021), HEMALATHA S (1SG12EC043), MANJULA H N (1SG12EC055)**, a bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering, Visvesvaraya Technological University**, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Suma V Shetty	20/05/2016	Dr. Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Suma V Shetty	Prof. Sandhya Rani M.H	Dr. Aswatha Kumar. M
Assistant professor	Associate professor &HOD	Principal

External Viva

Name of the examiners	**Signature with date**
1.	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road, Bangalore-560 057
2.	

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bangalore- 560057

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the Project work entitled **"VIRTUAL SHUFFLING KEYPAD FOR SECURE ATMs"** carried out by **Ms.ROOPA M (1SG12EC102),Ms.SUMA C (1SG12EC103),Ms.SUVARNA SUSHMITHA PADMANABHA (1SG12EC107), Ms.KAVITHA H.S(1SG13EC424)** bonafide students of 8th semester **Electronics and Communication Engineering** in partial fulfilment for the award of **Bachelor of Engineering in Sapthagiri College of Engineering of the Viswesvaraya Technological University,** Belgavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

21/5/2016 21/05/2016

Signature of the Guide	Signature of the HOD	Signature of the Principal

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

EXTERNAL VIVA

Name of the Examiner	Signature with date
1)	
2)	20/5/16

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"SMART MENU ORDERING SYSTEM FOR RESTAURANTS AND HOTELS USING ZIGBEE"** carried out by **Mr. Srinivasa B R (1SG12EC101), Mr. Vasudev D (1SG12EC112), Mr. Vijay A (1SG12EC113), Mr. Vilas Raj V Urs (1SG12EC114)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide(s)

23/05/2016
Signature of the HOD
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. Sandhya Rani M.H.	08/6
2. Sujatha B M	8/6

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru-560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"CO-OPERATIVE ADAPTIVE CRUISE CONTROL USING CAN PROTOCOL"** carried out by **Mr. Mukhil Padmanabhan (1SG11EC045), Mr. Nishant Khanna (1SG09EC044), Mr. Raghu V. (1SG11EC059), Mr. Suhas S. (1SG10EC087)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of Bachelor of Engineering in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2015-16**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

21/5/16

Signature of the Guide
Mrs. Prathibha P.

23/05/2016

Signature of the HOD
Mrs. Sandhya Rani M.H.

Signature of the Principal
Dr. Aswatha Kumar M.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**SEEDING AGRICULTURAL ROBOT**" carried out by **APOORVA S (1SG12EC013), ASHA N G (1SG12EC021), HEMALATHA S (1SG12EC043), MANJULA H N (1SG12EC055)**, a bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering. Visvesvaraya Technological University**, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Suma V Shetty	26/05/2016	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Suma V Shetty	Prof. Sandhya Rani M.H	Dr. Aswatha Kumar M
Assistant professor	Associate professor &HOD	Principal

Principal
Sapthagiri College of Engineering
No.14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. Sandhya Rani M.H.	09/06/16
2. Sujatha. D.M	07/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Embedded Web Server for Monitoring and Controlling of Remote devices"**, carried out by Divyalakshmi B.N.(1SG12EC036). Kavitha B.(1SG12EC046), Likitha A. B. (1SG12EC051) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

(S K MURTHY)
Signature of the Guide

17/05/2016
Signature of the HOD

Signature of the Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners

1.
2.

Signature with date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

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College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING,
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru–560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"RFID BASED OFFICE AUTOMATION AND ATTENDANCE MONITORING SYSTEM WITH PAYROLL"** carried out by Mr. KARTHIK M NAGALEEKAR (1SG11EC032), Mr.PAVAN H R (1SG12EC060) , Mr. SANTHOSH MURTHY B K (1SG12EC095) Mr.SRINIDHI M RAO (1SG12EC100) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Dr. GEETHA C R	Prof. SANDHYA RANI M H	Dr. ASWATHA KUMAR M
Associate Professor,	Head of the Department	Principal
Dept. of ECE	Electronics & Communication	Dr. Aswatha Kumar. M
	Sapthagiri College of Engineering	Principal
	Bangalore-560 057.	Sapthagiri College of Engineering
		No. 14/5, Chikkasandra,
		Hesaraghtta Main Road,
		Bangalore-560 057

18/05/2016

External Viva

Name of the examiners	Signature with date
1	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTNAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"AUTOMATIC MILK QUALITY ANALYSIS AND BILLING THROUGH SMARTCARD"**, carried out by Asha R (1SG12EC022), Asha S (1SG12EC023), Avinash Kumar (1SG12EC024), Deepa (1SG12EC034) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

1.Dr. Aswatha Kumar M

2. Anitha Murthy 11/May/2016

Signature of the Guides

Signature of the HOD 11/05/2016

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M.H.	08/06/16
2. Sujatha. B.M	8/6/16

Principal
Sapthagiri College of Engineering
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057
Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled, "EOG SIGNAL ACQUISTION AND PROCESSING FOR HOME AUTOMATION" carried out by **Rodrigues Ryan (1SG12EC086), Santosh Kumar (1SG12EC096), Vivek Kumar Mann (1SG12EC119), Vivek Kumar (1SG12EC118)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

18.5.16

Signature of the Guide	**Signature of the HOD** 18/05/2016	**Signature of Principal**
Sasmita Mohapatra	Sandhya Rani M.H.	Dr. Aswatha Kumar M.
Associate professor	Associate professor and HOD	Principal
Dept. of ECE	Dept. of ECE	SCE, Bengaluru
SCE, Bengaluru	SCE, Bengaluru	

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

External Viva

Name of the examiners	**Signature with date**
1. RAVISHANKARA M.N	11/6/16
2. Keshavamurthy	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"BRAIN TUMOUR EXTRACTION FROM MRI USING MATLAB"** carried out by Ms. Bhavana.H.T (1SG12EC026), Ms.Manasa K. (1SG12EC054)bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

20/5/16

Signature of the Guide
Mrs.Prathibha P.

20/05/2016

Signature of the HOD
Head of the Department
Mrs.Sandhya Rani M.H.
Electronics & Communication
Sapthagiri College of Engineering
Bangalore -560 057.

Signature of the Principal
Dr.Aswatha Kumar M.
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiners **Signature with Date**

1. Sandhya Rani M.H. 13/06/2016
2. Keshavamurthy 13/6/2016

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057
Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"IMPLEMENTATION OF EVEN AND ODD BASED VEHICLE TRAFFIC MANAGEMENT USING WIRELESS NETWORKS"**. carried out by Mr./Ms SUHAS V USN (1SG12EC102), RAKSHITH KUMAR G USN (1SG12EC082),POORNESH K P USN(1SG12EC071) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.
Signature of the HOD

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057
Signature of the Principal

External Viva

Name of the examiners

1. Sandhya Rani M.H.
2. Sujatha. B.M

Signature with date

09/06/16
9/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belgaum, Karnataka)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

This is to certify that **AJEETH.** bearing **USN 1SG14LVS01**, a bonafide student of **Sapthagiri College of Engineering,** has satisfactorily completed Industrial Training from Manvish E-tech Pvt. Ltd. in partial fulfillment of the requirements as prescribed by the VTU for **III semester, Master of Technology in VLSI DESIGN & EMBEDDED SYSTEMS** and submitted this report during the academic year 2015 – 16.

Signature of the Guide	Signature of HOD	Signature of Principal
Prof. Sandhya Rani. M. H	**Prof. Sandhya Rani M.H.**	**Dr. Aswatha kumar M.**
Asst. professor	Associate Professor & HOD	Principal
Dept of ECE	Dept of ECE	SCE, Bengaluru

02/12/15

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

External Viva

Name of the Examiners	Signature with Date
1. Sandhya Rani M.H.	03/12/15
2. Raghavendra M.D.	03/12/15

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

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Creating Tomorrow

SAPTHAGIRI COLLEGE OF ENGINEERING,
14/5, Chikkasandra, Hessaraghatta Main Road, Bangalore–560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Classification of Glaucoma Images Using Wavelet Based Energy Features and ANN**". Carried out by Ms. **ARBIN TAJ N (1SG12EC014), DHANYASHREE K V (1SG12EC035), KAVYA S (1SG12EC047), LAVANYA K (1SG12EC050)**, bonafide students of 8th semester **Electronics and Communication Engineering** in partial fulfillment for the award of Bachelor of **Engineering** in Sapthagiri College of Engineering of the **Visvesvaraya Technological University, Belagavi** during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD Head of the Department Electronics & Communication Sapthagiri College of Engineering External Viva Chikkasandra, Hesaraghatta Road, Bangalore-560 057	Signature of the Principal Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560 057
Name of the examiners		**Signature with date**
1. Sandhya Rani M.H.		13/6/2016
2. Keshavamurthy		13/6/2016

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"Implementation of FFT using Dadda and Booth encoded Wallace multiplier"** carried out by**Akshata Ashok Naik (1SG12EC005), Anusha S (1SG12EC012), M.Nihal (1SG12EC052)** bonafide student of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

10/5/16	10/05/2016	
Signature of the Guide	**Signature of the HOD**	**Signature of Principal**
Mrs Shobha S	Mrs. Sandhya Rani M.H.	Dr. Aswatha Kumar M.
Associate professor	Associate professor and HOD	Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners | **Signature with date**

1. Sandhya Rani M.H. — 10/06/201
2. Sujatha. B.M — 10/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057, Karnataka

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled **"CAR PARKING PREDICTION MODEL"**, carried out by **AMAN KUMAR(1SG12EC006), AVINASH KUMAR(1SG12EC025), KSHITIJ YADAV(1SG12EC049), NILESH KUMAR(1SG12EC061)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Dr. ASWATHA KUMAR M.	**Prof. SANDHYA RANI M. H**	**Dr. ASWATHA KUMAR M.**
Principal	Head Of the Department	Principal
Signature of the Co-Guide	Head of the Department Electronics & Communication Sapthagiri College of Engineering Bangalore 560 057.	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057
Prof. NAVEEN H.		
Assistant Professor		

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M.H.	
2. Sujatha. B.M	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"ANDRIOD BASED ATM SECURITY"**, carried out by Abhilash N(1SG12EC001),Chidananda H.H(1SG12EC032),Harish Kumar Prasad K.T(1SG13EC409),Kiran Kumar S.L.(1SG12EC048) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the HOD

Signature of the Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners

1.
2.

Signature with date

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

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College of Engineering
Creating Tommorow

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Project Work entitled, **"Adaptive High Beam Control in Vehicles using Image Processing"** carried out by **Mr. Abhishek, USN (1SG12EC002), Abhishek Kumar, USN (1SG12EC003), Ghanendra Singh, USN (1SG12EC039), Grishm Khurana, USN (1SG12EC040)**, bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi** during the year **2015-16**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

18.5.16

Signature of the Guide
Mrs. Sasmita Mohapatra
Associate Professor
Dept. of ECE, SCE

19/05/2016

Signature of the HOD
Mrs. Sandhya Rani M.H.
Associate Professor & HOD
Dept. of ECE, SCE

Head of the Dept.
Electronics & Comm. Engg.
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal
Dr. Aswatha Kumar M.
Principal
SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiner	**Signature with date**
1. Sandhya Rani M.H.	08/06/2016
2. Sujatha. B.M	8/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"FACIAL RECOGNITION USING RASPBERRY PI"** carried out by **Prince Nitin (1SG11EC057), Mahendra Choudhary (1SG11EC041), Dhanush P. (1SG12EC403), Varun S. (1SG11EC413)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of Principal
Mr Jayadeva D. B.	Mrs. Sandhya Rani M.H.	Dr. Aswatha Kumar M.
Assistant professor	Associate professor	Principal
Dept. ECE	Dept. ECE	SCE, Bengaluru
SCE, Bengaluru	SCE, Bengaluru	

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M.H.	
2. Kalivavamurthy	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"MODIFIED HUMMINGBIRD CRYPTOGRAPHIC ALGORITHM"** is carried out collectively by **Ms. ANIKA SANJEEVAN (1SG12EC126), Ms. SUNITHA Y. (ISG12EC104), Ms. SUSHMITHA T.S. (1SG12EC106)** and **Ms. YESHASWINI L. (ISG12EC121)**; bonafide students of the **VIII Semester Electronics and Communication Engineering** department, in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering,** affiliated to **Visvesvaraya Technological University,** Belagavi, for the academic year 2015-2016. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of the project work prescribed for the Bachelor of Engineering degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
(S K MURTHY)	20/05/2016	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Names of the examiners	Signatures with date
1.	1.
2.	2.

Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bangalore– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Retrofitment using programmable logic controller(PLC) for ameteep press**" carried out by **Mr. Charan S (1SG12EC030), Mr. Clavin Patrick Abraham (1SG12EC033), Mr. G Srinivas (1SG12EC037), Mr. Karthik HegdeH.A. (1SG12EC045)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Shilpa V.	Head of the Department Electronics & Communication Engineering Mrs. Sandhya Rani M. H. Sapthagiri College of Engineering Bangalore-560 057.	Dr. Aswatha Kumar M. Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road Bangalore-560 057

25/5/16 — 25/05/2016

External Viva

Name of the examiners | **Signature with date**

1. Sandhya Rani M.H. 13/06/2016
2.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057
Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"LOW BUDGET WATER LEVEL CONTROLLER AND INDICATOR"**. carried out by Mr.RAVIRAJ KAMATI USN (1SG12EC085), SATEESH B.R. USN (1SG12EC128), RAKSHITH B.A. USN (1SG12EC081), R.MANJUNATH USN (1SG12EC077) bonafide students of 8th Semester Electronics and communication Engineering in partial fulfillment for

the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Ravishankar M.N.	Mrs. Sandya Rani M.H.	Dr Ashwath Kumar. M
Associate professor	Associate professor	Principal SCE, Bangaluru
Dept. of ECE	Dept. of ECE	Sapthagiri College of Engineering
SCE, Bengaluru	SCE, Bengaluru	No. 14/5, Chikkasandra,
	19/05/2016	Hesaraghtta Main Road,
		Bangalore-560 057

External Viva

Name of the Examiners	**Signature with date**
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Dynamic Range Control of Audio Signals**" carried out by **Ms. Aishwarya P (1SG12EC127), Ms. Nayana G S (1SG13EC415), Ms. Sandhyarani C K (1SG13EC420), Ms. Vidyasree R (1SG13EC423),** a bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering, Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

18.05.2016
Signature of the Guide

18/05/16
Signature of the HOD
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. Sandhya Rani M.H	13/06/16
2. Keshavamurthy	13/6/2016

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057
Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"LOW BUDGET WATER LEVEL CONTROLLER AND INDICATOR"**. carried out by Mr.RAVIRAJ KAMATI USN (1SG12EC085), SATEESH B.R. USN (1SG12EC128), RAKSHITH B.A. USN (1SG12EC081), R.MANJUNATH USN (1SG12EC077) bonafide students of 8th Semester Electronics and communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of the Visvesvaraya Technological University, Belgavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide
Mr. Ravishankar M.N.
Associate professor
Dept. of ECE
SCE, Bengaluru

19/05/2016
Signature of the HOD
Mrs. Sandya Rani M.H.
Associate professor
Dept. of ECE
SCE, Bengaluru

Signature of the Principal
Dr. Ashwath Kumar. M
Principal SCE, Bengaluru
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiners	Signature with date
1. Sandhya Rani M.H	09/06/2016
2. Sujatha B.M	9/6/16

Principal
Sapthagiri College of Engineering
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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"TOUCHLESS FINGERPRINT RECOGNITION USING MATLAB"**.carried out by Mr.Budur Siddhartha Reddy(1SG12EC027), Mr.Charanraj O.(1SG12EC031), Mr.Guruprasad G.(1SG12EC041), Mr.Mohit G. (1SG12EC056) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

SNS 20.05.2016
Signature of the Guide

20/05/2016
Signature of the HOD
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1. Sandhya Rani M.H.	13/06/2016
2. Keshavamurthy	13/6/2016

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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Zigbee Based Wireless Sensor Network for Pollution Monitoring in Vehicles**", carried out by Anurag Kumar(1SG12EC011), Anand Vardhan.(1SG12EC008), Ajeet Kumar (1SG12EC004), Chandresh Vikram (1SG12EC029) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

18/5/16

Signature of the Guide

Signature of the HOD

Head of the Department
Electronics & Communication

Signature of the Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. Sandhya Rani M.H.	13/06/2016
2. Keshavamurthy	13/6/2016

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "Vehicle movement control and accident avoidance in hilly tracks" carried out by Ms. Aparna P.J(1SG11EC011), Ms. Bhavya(1SG11EC016) Ms. Chaitra M(1SG11EC018), Ms. Channamma R(1SG11EC020) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraiah Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Suma V Shetty	Mrs. Sandhya Rani M H	Dr. Aswatha Kumar M
Assistant professor	Associate professor and HOD	Principal
Dept of ECE,SCE	Dept of ECE,SCE	SCE

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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College of Engineering
Creating Tomorrow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bangaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **Design and Prototype Development of NFC based e-Money Transfer System** carried out by Mr. Ananya M.S. (1SG11EC008), Mr. Pramoda S Ullagaddi (1SG11EC053), Mr. Aman Shukla (1SG11EC005), Mr. Vivekananda R.K. (1SG11EC093) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. B.N. Shubha	Mrs. Sandya Rani M.H	Dr. Aswatha Kumar M Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore -560 057.

External Viva

Name of the examiners	Signature with date
1. LATHA B.N	Latha B.N. 8/6/15
2.	8/6/15

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

This is to certify that the project work entitled "**Design and development of low cost high speed video processing based touchscreen on FPGA**" carried out by AISHWARYA B.(1SG11EC004), DILIP N.K.(1SG11EC023), KIRAN KUMAR S.R.(1SG11EC057), NITHYA G.S.(1SG11EC048) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Prathibha P	Mrs. Sandhya Rani M.H.	Dr. Ashwatha Kumar M.
Assistant Professor	Associate Professor & Head	Principal
Dept. of E.C.E, SCE	Dept. of E.C.E, SCE	Dept. of E.C.E, SCE

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Dr. Ashwatha Kumar. M
Principal
Sapthagiri College of Engineering
#14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057.

External Viva

Name of the examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

Scanned with CamScanner

SAPTHAGIRI
College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Implementation of Syndrome Trellis code to minimise additive noise in Steganography**" carried out by **Mr. Vignesh V Rao (1SG11EC088), Mr. Vinay Prasad S.K (1SG11EC091), Mr. Vivek V (1SG11EC092), Mr. Rajesh M. (1SG11EC096)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfilment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgaum during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
	Head of the Department	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering #14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1.	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road, Bangalore-560 057
2.	

SAPTHAGIRI
College of Engineering
Creating Tomorrows

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Evaluation of ground station performance parameters for PSLV-C27/IRNSS-1D**" carried out by Ms.Kavitha L (1SG11EC034), Ms. Mamatha S L (1SG11EC042) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfilment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Geetha C R	**Mrs. Sandhya Rani M H**	**Dr. Aswatha Kumar M**
Assistant Professor	Associate Professor	Principal
ECE, SCE	ECE, SCE	SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

External Viva

Name of the examiners	**Signature with date**
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
Creating Tomorrow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**DIGITAL FUEL INDICATOR WITH GSM AND SIGNALLING SYSTEM**" carried out by Mr. BALRAM R 1SG11EC014 Mr. HARISH GOWDA A L 1SG11EC028 Mr.KARTHIK S C 1SG11EC033 Mr. LOHITHA P B 1SG11EC040 bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide
Mrs. Shobha Hugar
Assistant Professor
Dept. of ECE,
SCE, Bangalore

23/05/15
Signature of the HOD
Mrs. Sandhya Rani M. H.
Associate Professor and HOD
Dept. of ECE,
SCE, Bangalore

Signature of the Principal
Dr. Aswatha Kumar M.
Principal
SCE, Bangalore

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Department of Electronics and Communication Engineering
Sapthagiri College of Engineering
Bangalore-560 057

External Viva

Name of the examiners
Signature with date
1
2

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

9/6/15
9/6/15

SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bangalore– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Implementation of Feature Based Moving Object (Vehicle)Tracking and Detection on Embedded Platform for Surveillance Applications**"carried out by **Mr.RaghuRam R (1SG11EC058), Mr.SumithPatel.BM (1SG11EC081), Mr.Manjunath K (1SG12EC409), Mr.Praneeth Kamaladinni (1SG12EC412)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of Principal
Mrs.Vani.V	Mrs.Sandhya Rani.M.H	Dr. Aswatha Kumar M
Asst Professor	Professor,HOD	SCE
ECE Dept,SCE	ECE Dept,SCE	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore -560 057.

External Viva

Name of the examiners

1.

2.

Signature with date

10/6/15

10/06/2015

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bangalore - 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Implementation of Feature Based Moving Object (Vehicle)Tracking and Detection on Embedded Platform for Surveillance Applications**"carried out by **Mr.RaghuRam R (1SG11EC058), Mr.SumithPatel.BM (1SG11EC081), Mr.Manjunath K (1SG12EC409), Mr.Praneeth Kamaladinni (1SG12EC412)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree

Signature of the Guide	Signature of the HOD	Signature of Principal
Mrs.Vani.V	Mrs.Sandhya Rani.M.H	Dr. Aswatha Kumar M
Asst Professor	Professor,HOD	SCE
ECE Dept,SCE	ECE Dept,SCE	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560 057.

Name of the examiners

1

2

External Viva

Signature with date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057
Department of Electronics and Communication Engineering

CERTIFICATE

This is to Certify that the project work entitled" **RFID Technology for Solving Multiple Vehicle Applications**" carried out collectively by Mr. ABHILASH R [1SG12EC400], Mr. ANILA KUMAR S.B. [1SG12EC401], Mr. AYODHI PAKIRAPPA [1SG12EC402], Mr THIPPESWAMY H.R. [1SG12EC416] are bonafide student of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. This project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Shilpa V.	Mrs. Sandhya Rani M. H.	Dr. Aswatha Kumar M.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore- 560 057

External Viva

Name of the examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

10/06/2015

SAPTHAGIRI
College of Engineering
Creating Innovators

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**LOW COST ASSISTIVE NAVIGATION SYSTEM FOR BLIND PEOPLE**" carried out by Mr. Amit Kumar (1SG11EC006), Mrs. Reethu B N (1SG11EC067), Mr. Sandip Singh (1SG11EC071) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2014-15. It is certified that all corrections suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mrs. Sasmita Mohapatra
Associate Professor

Mrs. Sandhya Rani M H
Head of the Department

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore 560 057

Mr. Aswatha Kumar M
Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

External Viva

Name of the examiners	Signature with date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**PERSISTENCE OF VISION BASED DISPLAY**" carried out by Ms. **AARTHI V (1SG11EC002)**, Ms. **KHAMER UNNISA H (1SG11EC036)** and Ms. **MEENAKSHI G (1SG11EC043)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2014-15. It is certified that all corrections suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Sandhya Ram M H	Mrs. Sandhya Ram M H	Dr. Ashwatha Kumar M.
Assoc. Prof. & HOD	Head of the Department	Principal
Dept. of E&C, SCE, Bangalore	Electronics & Communication	SCE, Bangalore
Head of the Department	Sapthagiri College of Engineering	Dr. Aswatha Kumar. M
Electronics & Communication	Bangalore-560 057	Principal
Sapthagiri College of Engineering		Sapthagiri College of Engineering
Bangalore-560 057		No. 14/5, Chikkasandra,
		Hesaraghatta Main Road,
		Bangalore-560 057.

External Viva

Name of the examiners	**Signature with date**
1. LATHA B.N.	Latha B.N 8/6/15
2. [illegible]	8/6/15

Principal
Sapthagiri College of Engineering
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057
Department of Electronics and Communication Engineering

CERTIFICATE

This is to Certify that the project work entitled "**System Integration of NFC Ticketing into an Existing Public Transport Infrastructure**" carried out collectively by Mr. LAKSHMIKANTHA H K [1SG12EC406], Mrs MANASA G. [1SG12EC407], Mr MOHAMAD ALI S.[1SG12EC410], Mr VINAY D. [1SG12EC418]are bonafide student of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. This project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

23/5/15
Signature of the Guide
Mrs. Shobha S.
Mrs. Anitha Murthy
23/05/2015

23/05/15
Signature of the HOD
Mrs. Sandhya Rani M. H,
Dept. of Electronics & Communication
Sapthagiri College of Engineering
Bangalore-560 057

Signature of the Principal
Dr. Aswatha Kumar M.
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

External Viva

Name of the Examiners	Signature with Date
1.	11/6/15
2. Sandhya Rani M H	11/06/2015

Principal
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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled " **COLOR IMAGE FUSION BY IMPLEMENTING CHOLESKY DECOMPOSITION TECHNIQUE** " Carried out by Mr. Shreesh S Joshi (1SG10EC078), Mr. Srinivas T (1SG11EC411), Mr. Yogaraja T M (1SG10EC091), Mr. Vinay H (1SG11EC090) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Sudha M S	Mrs. Sandhya Rani M H	Dr. Ashwatha Kumar M
Assistant Professor	Associate Professor & HOD	Principal, SCE
	Head of the Department	Dr. Aswatha Kumar. M
	Electronics & Communication	Principal
	Sapthagiri College of Engineering	Sapthagiri College of Engineering
	Bangalor 560 057	No. 14/5, Chikkasandra,
	External Viva	Hesaraghatta Main Road,
		Bangalore -560 057.

Name of the examiners	Signature with date
1. Dr. Bhaskar M S	10/6/15
2. Sandhya Rani M H	10/06/15

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SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**EYE CONTROLLED WHEELCHAIR**" carried out by Mr. **ROSHAN ZAMEER (1SG10EC069)**, Mr. **PAVAN KUMAR D .S. (1SG10EC052)** and Mr. **AYYAPPA DAS M. (1SG10EC094)** , bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Sandhya Rani M H	Mrs. Sandhya Rani M H	Dr. Aswatha Kumar M.
Assoc. Prof. & HOD	Assoc Prof. & HOD	Principal
SCE, Bangalore	SCE, Bangalore	SCE, Bangalore

Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore- 560 057

External Viva

Name of the examiners	**Signature with date**
1.	9/6/15
2.	9/6/15

Principal
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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled**"Implementation of Feature Based Moving Object (Vehicle) Tracking and Detection on Embedded Platform for Surveillance Applications"** carried out by **Ms.Gnanarashmi.N (1SG11EC026), Ms.Poojitha.E (1SG11EC051), Ms.Pravallika Bharathi V.N (1SG11EC055)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of Bachelor of Engineering in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
(Mr.Basavaraju.S)	(Mrs.Sandhya Rani.M.H)	(Dr. Ashwatha Kumar M)
Asst. Professor ECE Dept, SCE	Head of the Department Professor, HOD Electronics & Communication Sapthagiri College of Engineering Bangalore -560 057.	SCE Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore -560 057.

External Viva

Name of the examiners	Signature with date
1. Dr. Jayaram H.S	10/6/15
2. Sandhya Rani M.H	10/06/15

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"An Area and Energy Efficient Error Reduced Data Compression for Image Applications"** carried out by **Ms. SWETHA K N (1SG11EC082), Ms. SHREYA CHITTIAPPA (1SG11EC073), Ms. SOWMYA P (1S11EC080), Ms. USHA C (1SG11EC084)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
(P. Agalya Sivakumar)	(Sandhya Rani M.H)	(Dr. Aswatha Kumar M)
	23/05/15	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560 057.

Head of the Department
Dept. of Electronics & Communication
Sapthagiri College of Engineering
Bangalore - 560 057.

External Viva

Name of the examiners	Signature with date
1.	11/6/15
2. Sandhya Rani M.H.	

Principal
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11/06/2015

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "**Implementation of Syndrome Trellis code to minimise additive noise in Steganography**" carried out by **Mr. Vignesh V Rao. (1SG11EC088), Mr. Vinay Prasad S.K (1SG11EC091), Mr. Vivek A (1SG11EC092), Mr. Rajesh M. (1SG11EC096)** bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfilment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2014-15. It is certified that all corrections suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
	22/05/15	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore -560 057.

External Viva

Name of the examiners	Signature with date
1.	
2.	9/6/15

Principal
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SAPTHAGIRI
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14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "DESIGN AND IMPLEMENTATION OF A WIRELES MULTIPURPOSE MEASURING EMBEDDED INSTRUEMENT WITH AN INTEGRATED ANDRO AI ICATION". carried out by Mr.KARTHIK M (1SG11EC031), Mr.NARENDR CHOUDHARY(1SG11EC046), Mr.RAKESH Y(1SG11EC063),Ms.SNEHA G(1SG11EC077) bonafi tudents of 8th Semester Electronics and Communication Engineering in partial fulfillment for the awa of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technologic University, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated I nternal Assessment have been incorporated in the report deposited in the departmental library. The proje eport has been approved as it satisfies the academic requirements in respect of Project work prescribed for t aid Degree.

gnature of the Guide

rof. P.Agalya Sivakumar

Signature of the HOD

Prof. Sahithya S
Head of the Department
Electronics & Communication
Sapthagiri College of Engineering
Bangalore

External Viva

Signature of the Principal

Dr Aswatha kumar M.

Dr Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra
Hesaraghatta Main Road,
Bangalore - 560 057

Signature with date

ume of the examiners

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

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Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled **"DESIGN AND DEVELOPMENT OF A BLUETOOTH CONTROLLED PICK AND PLACE ROBOT"** carried out by **Ms. JYOTI KUMARI(1SG10EC032), Ms. LAVANYA B.(1SG10EC038), Ms. SHWETHA M.(1SI11EC074), Ms. SHILPA N.G.(1SG11EC409)** bonafide students of 8th Semester **Electronics and Communication Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2014-15. It is certified that all corrections suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
19.5.2015	Head of the Department, Electronics & Communication, Sapthagiri College of Engineering, Bangalore 560 057	Dr. Aswatha Kumar. M, Principal, Sapthagiri College of Engineering, No 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560 057.

Name of the examiners	Signature with date
1.	8/6/15
2. External Viva	8/6/15

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 560057

Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the project work entitled "REMOTE-CONTROL SYSTEM FOR HIGHLY EFFICIENT AND INTELLIGENT STREET LIGHTING USING ZIGBEE NETWORK", carried out by Mr. ASHISH BISHT (1SG11EC012), Ms. GAYATHRI DEVI S B (1SG11EC025), Mr. HARSHA P S (1SG11EC029) and Mr. MANJUNATH B (1SG12EC408) bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Name of the Guides	Signature of the guides
1. **Mrs. Sasmita Mohapatra** Associate Professor, Dept. of ECE, SCE	1
2. **Mrs. Ranjitha. B** Assistant Professor, Dept. of ECE, SCE.	2

Signature of the HOD

Mrs. Sandhya Rani M. H

Associate Professor, Department of ECE, SCE

Signature of the Principal

Dr. Aswatha Kumar M

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057.

External Viva

Name of the examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
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#14/5, Chikkasandra, Hesarghatta Main Road, Bangalore-560057
Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **STUDY OF SOURCE CHARACTERISTICS ON HVDC SOURCE SET FOR POLLUTION TEST** is carried out collectively by **CHARITHA M C (1SG15EE024), G TEJASHREE (1SG15EE029), GEETHA S (1SG16EE411), HARSHITHA V (1SG15EE036)** bonafide students of **8th semester EEE Dept.** in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi
Prof. & HOD
EEE Dept

Mrs. Rekha S N
Associate Prof.
Coordinator

Mrs. Ramya M
Assistant Prof.
Guide

Dr. K L Shivabasappa
Principal

External Viva

Name of the examiners
1. Avinash. S

Signature with date
12/6/19

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled "**MONITORING AND SAFETY DEVICES FOR MOTORCYCLE**" is carried out collectively by **AJAY BHAVA S (1SG16EE403), AKHILESH V (1SG16EE404), HARISH KUMAR M (1SG16EE414), KAUSHITH GOWDA M (1SG16EE418)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mrs. Sumangala S J	**Dr. K N Ravi**	**Dr. K L Shivabasappa**
Assistant Prof.	Prof. & HOD	Principal
Guide	EEE Dept	SCE

External Viva

Name of the examiners	Signature with date
1. Avinash. S	12/6/19
2.	

Principal
Sapthagiri College of Engineering
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled '**GESTURE CONTROLLED ROBOTIC ARM**' is carried out collectively by **CHAYA K (1SG15EE025), ARPITHA SRINIVASA MURTHY (1SG15EE012), APOORVA K G (1SG15EE010) and IRENE JACOB (1SG15EE037)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mrs. Jhansi K	**Dr. K N Ravi**	**Dr. K L Shivabasappa**
Assistant Prof.	Prof. & HOD	Principal
Guide	EEE Dept	

External Viva

Name of the examiners

Signature with date

1. Avinash. S 12/6/19

2.

Principal
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Department of

ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled "FUZZY LOGIC BASED OVER CURRENT PROTECTION SYSTEM FOR INDUCTION MOTOR" carried out by **CHANDAN K [1SG16EE409],KEERTHAN KUMAR H N [1SG16EE419], KRANTHIKUMAR G S, [1SG6EE422], LAKSHMANA H R [1SG16EE423],**bonafide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visveswaraiah Technological University, Belgaum during the academic year **2018-2019**.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library.The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Nandini D B	**Dr. K N Ravi**	**Dr. K L Shivabasappa**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

External Viva

Name of the examiners	**Signature with date**
1. Avinash. S	13/6/19
2. Nagaraj H.P	13/6/19

Principal
Sapthagiri College of Engineering
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **"CONTROL OF WATER PUMP FOR IRRIGATION USING NEURAL NETWORK"**is carried out collectively by **ARUNA B P (1SG15EE013), CHAITRA S (1SG15EE019), K LAVENYA (1SG15EE039), MANASA H (1SG15EE046)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the saiddegree.

Dr K N Ravi
Prof. & HOD
EEE Dept

Mrs. Rekha S N
Associate Prof.
Coordinator

Mr. Nagaraj H P
Associate Prof.
Guide

Dr K L Shivabasappa
Principal

External Viva

Name of the examiners
1. Avinash. S
2.

11/6/19
Signature with date

Principal
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **"FAULT DETECTION OF INDUCTION MOTOR"** is carried out collectively by **ANNAPURNA SINGH (1SG15EE005), CHANDAN GOWDA P (1SG15EE021), GANESH RAO S(1SG15EE032), LOHITH S(1SG15EE042)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr. K N Ravi
Prof. & HOD
EEE Dept.

Mrs. Rekha S N
Associate Prof.
Guide

24/5/19

Dr K L Shivabasappa
Principal

External Viva

Name of the examiners
1. Avinash. P
2. Dr. K. N. RAVI

Signature with date
11/6/19
11/6.

Principal
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **"DEVELOPMENT OF ENERGY MANAGEMENT SYSTEM (EMS) FOR SOLAR PHOTO VOLTAIC POWER PLANT TO SUPPLY POWER FOR COTTAGE INDUSTRIES WITHOUT USING BATTERY BANK"** is carried out collectively by **NITHYA.J (1SG15EE060), PRIYA. J (1SG15EE067), SURABHI.M (1SG15EE090), MEGHANA.M S (1SG15EE422)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K.N Ravi Prof. & HOD EEE, Dept	**Mrs. Rekha. S N** Associate Prof. Guide	**Mr. Rukmangada. R** Senior lecturer. Guide

Dr. K.L Shivabasappa
Principal

External Viva

Name of the examiners.	Signature with Date.
1. Avinash. S	11/6/19
2.	

Principal
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **TEMPERATURE AND HUMIDITY MONITORING SYSTEM AND HUMAN DETECTION IN STORAGE ROOM OF INDUSTRIES** is carried out collectively by NAVYA S R (1SG15EE058), CHAITHRA V (1SG15EE098), AKHILESH V KALGUTKAR (1SG16EE405), MANOJ N (1SG15EE051) bonafide students of 8th semester EEE Dept. in partial fulfillment for the award of degree in Bachelor of Engineering at Sapthagiri college of Engineering affiliated to Visvesvaraya Technological University, Belagavi for the Academic year **2015-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr. K N Ravi	**Mrs. JHANSI K**	**Mr. SHIVARAJ A**
Prof. & HOD	Assistant Prof. EEE	Assistant Prof. EEE
Coordinator	Guide	Guide

Dr. K L SHIVABASAPPA

Principal

External Viva

Name of the Examiners

1. Avinash S

2.

Signature with date

12/6/19

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
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#14/5, Chikkasandra, Hessarghatta Main Road, Bangalore-560057

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **AGROBOT** is carried out collectively by **ANUSHA B (1SG15EE008), C S MOHANA (1SG15EE017), JEEVITHA A (1SG15EE038), KEERTHANA R (1SG15EE041),**bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mr. A Dhamodaran	**Mrs. Rekha S N**	**Dr. K N Ravi**
Assistant Prof.	Associate Prof.	Prof & HOD
Guide	Project Coordinator	EEE Dept.

Dr K L Shivabasappa
Principal

External Viva

Name of the examiners

1. Avinash. S

2.

Signature with date

12/6

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **DESIGN AND IMPLEMENTATION OF OFF GRID SOLAR PV SYSTEM IN A PART OF SCE CAMPUS** is carried out collectively by **NANDEESH K S (1SG15EE426), NAYANASHREE B (1SG16EE431), NITHIN G (1SG16EE434), RAKESH S (1SG16EE439)**,bonafide students of **8thsemester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for theAcademic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the saiddegree.

.....

Mr. A Dhamodaran
Assistant Prof.
Guide

.....

Dr. K N Ravi
Prof & HOD
EEE Dept.

.....

Dr K L Shivabasappa
Principal

External Viva

Name of the examiners	Signature with date
1. Bharati. S.K.	14/06/2019.
2. Nagaraj H.P	14/6/19

Principal
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **DESIGN OF ROTATING WHEEL FOR POLLUTION TEST OF POLYMERIC SAMPLES** is carried out collectively by **SANDESH V (1SG15EE080), SHRUJANA R KUMAR (1SG15EE084), SRIKANT KADGI (1SG15EE086), SUMANTH S (1SG15EE088)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi Prof. & HOD EEE Dept	**Dr K Shivabasappa** Principal	**Mrs. Yousuf Madar** Assistant Prof. Guide

Principal
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Bengaluru - 560 057

External Viva

Name of the examiners	Signature with date
1. Bharati. S. K.	14/06/2019
2. Nagaraj H P	14/6/19

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CERTIFICATE

Certified that the project work entitled **STUDY OF SOURCE CHARACTERISTICS ON HVDC SOURCE SET FOR POLLUTION TEST** is carried out collectively by **CHARITHA M C (1SG15EE024), G TEJASHREE (1SG15EE029), GEETHA S (1SG16EE411), HARSHITHA V (1SG15EE036)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi	**Mrs. Rekha S N**	**Mrs. Ramya M**
Prof. & HOD	Associate Prof.	Assistant Prof.
EEE Dept	Coordinator	Guide

Dr. K L Shivabasappa
Principal

External Viva

Name of the examiners	Signature with date
1. Avinash. P	12/6/19
2. Dr. K. N. RAVI	12/6

Principal
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **SMART HEMLET** is carried out collectively by **ANTONY ROSHAN JOY DSOUZA (1SG15EE006), CHANDAN G (1SG15EE020), DHANUSH P (1SG15EE027), HARSHITH GOWDA S (1SG15EE035)** bonafide students of **8th semester EEE Dept.** in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi	**Mrs. Ramya M**	**Dr K L Shivabasappa**
Prof. & HOD	Assistant Prof. , EEE	Principal
EEE Dept	Guide	

External Viva

Name of the examiners

1. Avinash · S
2.

Signature with date

11/6/19

Principal
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CERTIFICATE

Certified that the project work entitled **SOLAR POWER GENERATION USING FRESNEL LENS ON SOLAR PANEL** is carried out collectively by **DARSHAN N (1SG15EE027), MANOJ B N (1SG15EE050), JAYANTH M V (1SG16EE415), KIRAN KUMAR K (1SG16EE420)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr. K N Ravi
Prof. & HOD
EEE Dept

Mr. Nagaraj H P
Associate Prof
Guide

29/5/19

Dr. K L Shivabasappa
Principal

External Viva

Name of the examiners
1. Avinash. D
2.

Signature with date
12/6/19

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CERTIFICATE

Certified that the project work entitled **SOLAR BASED MULTI-TASKING AGRICULTURE VEHICLE** is carried out collectively by **NILESH N GUNJIKAR(1SG16EE432), RAGHAVENDRA M(1SG15EE070), SHASHANK K S(1SG16EE443),SUPRIYA P R(1SG15EE089)** bonafide students of **8th semester EEE Dept.** in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi	**Mr. Guru Prasanna**	**Dr. K L Shivabasappa**
Prof. & HOD	Senior Lecturer	Principal
EEE Dept	Guide	

External Viva

Name of the examiners	Signature with date
1. Nagaraj H.B	13/6/19
2. Avinash. S	13/6/19

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CERTIFICATE

Certified that the project work entitled **HEART ATTACK DETECTOR** is carried out collectively by **MEGHANA S HULIKAL (1SG15EE053), MOUNIKA G B (1SG15EE056), PRARTHANA A PADMANABH (1SG15EE064), SWATHI B C (1SG15EE091)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi
Prof. & HOD
EEE Dept

Mrs. Ashwini C
Assistant Prof.
Guide

Dr. K L Shivabasppa
Principal

External Viva

Name of the examiners	Signature with date
1. Bharati. S. H.	14/06/2019.
2. Nagaraj. H.P	14/6/19

Principal
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CERTIFICATE

Certified that the project work entitled **HIGH EFFICIENCY REMANUFACTURING OF INDUCTION MOTOR** is carried out collectively by **MOHAMED JAFFER SAADIQ(1SG15EE054), RAMACHANDRA(1SG15EE073), SOUNDARYA.M (1SG15EE085), VARUN K.M(1SG16EE450)** bonafide students of **8th semester EEE Dept.** in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mr Bharath B.N	**Dr K.N Ravi**	**Dr K L Shivabasappa**
Assistant Professor	Prof. & HOD	Principal
Guide	EEE	

EXTERNAL VIVA

Name of the examiner	Signature with date
1. Avinash S	13/6/19
2. Nagaraj. H. P	13/6/19

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **CROSS BORDER INFILTRATION DETECTION AND PROTECTION SYSTEM** is carried out collectively by **PAWAN KUMAR D (1SG15EE061) RAVI PRAKASH H (1SG15EE076) SHARATH C (1SG15EE083) VISHAL S PUJARI (1SG15EE097)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi	**Mrs. Rekha S N**	**Mrs. Preetha N P**
Prof. & HOD	Associate Prof.	Assistant Prof.
EEE Dept	Guide	Guide

Dr. K L Shivabasappa
Principal

External Viva

Name of the examiners

1. Bharati .S. H
2. Nagaraj H.P

Signature with date

14/06/2019
14/6/19

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14/5, Hesarghatta Main Rd, Chikkasandra, Jalahalli West,Bengaluru, Karnataka 560057

CERTIFICATE

Certified that the project work entitled **"DESIGN OF INSULATOR FOR POLLUTED CONDITIONS AND INSPECTION OF POLLUTION ON INSULATOR AT SITE USING UAVs"** collectively by **carried out D MANISH NAICKER (1SG15EE026), GURURAJA D(1SG15EE034), MANISH MANJUNATH NARAYANA RAO (1SG16EE047), MANOHARA.S (1SG15EE049)** bonafide students of **8th semester EEE Dept**, Sapthagiri College Of Engineering, in partial fulfillment for the award of **Bachelor of Engineering** in Electrical and Electronics department of the Visvesvaraya Technological University, Belgaum during the year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. A Dhamodaran	**Dr. K N Ravi**	**Dr. K L Shivabasappa**
Assistant Professor	Professor and HOD	Principal

External Viva

Examiner

1. Avinash. S

2.

Signature with date: 11/6/19

Principal
Sapthagiri College of Engineering
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#14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **HAND GESTURE WHEEL CHAIR** is carried out collectively by **SHANU (1SG15EE082), VINUTHA D (1SG15EE096), RAGI JAYA (1SG15EE072), NETHRA R (1SG15EE059)** bonafide students of **8th semester EEE Dept.** in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr. K N Ravi
Prof. & HOD
EEE Dept.

Mrs. Rekha S N
Associate Prof.
EEE Dept.

24/5/19

Dr. K L SHIVABASAPPA
Principal

External Viva

Name of the examiners	Signature with date
1. Avinash. S	13/6/19
2. Nagaraj H. S	13/6/19

Principal
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Department of

ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"ELECTROMAGNETIC RADIO RECEIVER A DESIGN FOR RECEIVING JUPITER SIGNAL"** carried out by **R. ABHISHEK,USN [1SG15EE068], RACHANA M, USN [1SG15EE069]**, bonafide students of **8th semester EEE dept** in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** department affiliated to **Visveswaraiah Technological University**, Belgavi during the academic year **2018-2019**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Rukmangada. R	**Dr. K N Ravi**	**Dr. K L Shivabasappa**
Senior Lecturer	Professor & H.O.D	Principal
(Project Guide)	(Head of the Dept.)	S.C.E Bangalore

External Viva

Name of the examiners **Signature with date**

1. Nagaraj. H.P 13/6/19
2. Avinash. G 13/6/19

Principal
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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"LANDMINE DETECTION ROBOTIC VEHICLE WITH GPS POSITIONING USING ARM PROCESSOR"** is carried out by **ANUP H V** bearing **1SG15EE007, BALAJI VENKATESH KALKONDA** bearing **1SG15EE015, KARTHIK B** bearing **1SG15EE040, CHANDAN KUMAR** bearing **1SG15EE022,** bonafide students of **Sapthagiri College of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year **2018-2019**. It is certified that all corrections/suggestions indicated in the Internal Assessment have been incorporated in the report deposited. The Project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15EEP85)** prescribed for the Bachelor of Engineering Degree.

Mrs. Manaswi.K. J	**Dr. K.N. Ravi**	**Dr. K.L Shivabasappa**
Asst. Professor	Professor & H.O.D	Principal

EXTERNAL EXAMINATION:

Name of the Examiners	**Signature with date**
1. Avinash. S	11/6/19
2. Dr K.N. RAVI	11/6

Principal
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **EFFICIENT HYBRID POWER GENERATION USING HELICAL WIND TURBINE AND SOLAR TRACKING SYSTEM** is carried out collectively by **ANUSHA K (1SG15EE009), ARPITA SHARMA (1SG15EE011), ATHIYA MOHAMMADI (1SG15EE014), CHANDANA B (1SG15EE023)** bonafide students of **8th semester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2018-2019**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi	**Mrs. Rekha S N**	**Mrs. Sumangala S Jambli**
Prof. & HOD EEE Dept	Associate Prof. Guide	Assistant Prof. Guide

Dr K L Shivabasappa
Principal

External Viva

Name of the examiners	Signature with date
1. Avinash. S	13/6/19
2. Nagaraj H. P	13/6/19

Principal
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Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"FLEXIBLE AC TRANSMISSION SYSTEM BY THYRISTOR SWITCHED REACTOR"** carried out by **PAVITHRA.C** bearing **USN [1SG14EE056], RANJITHA.K** bearing **USN [1SG14EE064], SOWBHAGYA.S** bearing **USN [1SG14EE073], V.J.SATHYA PRAKASH REDDY** bearing **USN [1SG14EE083],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr. Mahavishnu.K.B.P	**Dr. K.N.Ravi**	**Dr. Shivabasappa.K.I.**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

28/5/18

Principal
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Chikkasandra, Hesaraghatta Road
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External Viva

Name of the examiners	Signature with date
1. Nagaraj H.P	11/6/18
2. Dwarakanath SK	11/6/18

Principal
Sapthagiri College of Engineering
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College of Engineering

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled "**BLINDMAN SMART STICK**" carried out by **PALLAVI. S** bearing **USN [1SG14EE053]**, **PAVAN KUMAR H. D** bearing **USN [1SG14EE055]**, **POORVA. H** bearing **USN [1SG14EE058]**, **SHILPA.H S** bearing **USN [1SG14EE070]**, bona fide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide
Mrs. Ramya. M
Asst. Professor
(Project Guide, Dept. Of EEE)

Signature of the Guide
Ms. Shwetha. C
Asst. Professor
(Project Guide, Dept. Of EEE)

Signature of the HOD
Dr. K.N. Ravi
Professor& H.O.D
(Head of the Dept., EEE)

Signature of the Principal
Dr. Shivabasappa. K. L
Principal
S.C.E Bangalore

External Viva

Name of the examiners

1. Dr. K. N. RAVI
2. Shivakumar R

Signature with date

15/6/18

Principal
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CERTIFICATE

Certified that the project work entitled **"SOLAR PIEZO HYBRID POWER GENERATION USING FOOT STEPS"** carried out by **SANDESH R** bearing **USN [1SG15EE432], SHREEJA T** bearing **USN[1SG15EE437], SINDHU K.P** bearing **USN [1SG15EE438], TEJASWINI K.C** bearing **USN [1SG15EE445],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs SWETHA G Asst. Professor (Project Guide)	Dr K N RAVI Professor & H.O.D (Guide & Head of the Dept)	Dr K L SHIVABASAPPA Principal S.C.E Bangalore

Signature of the Guide

Mrs. HARSHITHA
Asst. Professor
(Project Guide)

External Viva

Name of the examiners	Signature with date
1. Dr K. N. RAVI	
2.	

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
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College of Engineering

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"V/f CONTROL OF INDUCTION MOTOR USING MATLAB SIMULINK"** carried out by **MEGHANA G V** bearing **USN [1SG14EE045], NETHRAVATHI K** bearing **USN [1SG14EE050], PADMINI R** bearing **USN [1SG14EE052], PRAGATHI S** bearing **USN [1SG14EE059],** bonafide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Rekha S N	**Dr. K N Ravi**	**Dr. K L Shivabasappa**
Assoc. Professor	Professor & H.O.D	Principal
(Project Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

External Viva

Name of the examiners	Signature with date
1. Dr. K.N RAVI	15/6
2. Shivakumar	15/6/18

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

SAPTHAGIRI
College of Engineering
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Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"REAL TIME MONITERING OF UNMANNED GROUND VEHICLE"** carried out by **GANESH KUMAR T C [1SG14EE028], ABHISHEK C KEMBHAVI [1SG14EE003], MANJUNATH R [1SG15EE419], H P TRISHUL [1SG15EE412],** bonafide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
29/5/18		28/5/18
Mrs. Swetha G	**Dr. K N Ravi**	**Dr. K L Shivabasappa**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Head of the Dept.)	Sapthagiri College of Engineering

Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

External Viva

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

Name of the examiners	Signature with date
1. Nagaraj H.P	13/6/18
2. Chandralekha T.J	13/6/18

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ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"MINI COGENERATION POWER PLANT"** carried out by **NIKHIL M G** bearing **USN [1SG14EE051], PAVAN KUMAR D V** bearing **USN [1SG14EE054], SRINIVAS J** bearing **USN [1SG14EE074], UPENDRA R** bearing **USN [1SG14EE081],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr.Guruprasanna Senior lecturer (ProjectGuide)	**Dr.K.N.Ravi** Professor&H.O.D EEE. S.C.E	**Dr.K.L.Shivabasappa** Principal S.C.E Bangalore

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1.....	.....
2.....	.....

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"SOLAR POWERED WIRELESS POWER TRANSMISSION"** carried out by **NAGENDRA R GOUTHAMAS** bearing **USN [1SG15EE425], NANDEESH C** bearing **USN [1SG15EE427], RAKSHITH S** bearing **USN [1SG14EE061], NAYAB MOHAMMAD AMEER JAN** bearing **USN [1SG14EE049],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Nandini D.B	**Dr. K.N.Ravi**	**Dr. Shivabasappa.K.L**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

31/5/18

External Viva

Name of the examiners Signature with date 1.

2.

Principal
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaragatta Main Road, Bangalore – 560057
[Affiliated to Visvesvaraya Technological University, Belagavi]

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the Project work entitled **3 PHASE INDUCTION MOTOR PROTECTION AND CONTROL SYSTEM** carried out by **ASHWINI KUMAR (1SG13EE010), DARSHAN R(1SG15EE407), KIRAN D (1SG14EE035), KUSHAL N (1SG14EE038)** bonafide students of 8th semester, in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-2018.

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposit in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

01/06/18
(Signature of guide)

Mr. YOUSUF MADAR R
Assistant professor, EEE

(Signature of HOD)

Dr. K N RAVI
Professor & HOD, EEE

01/06/18
(Signature of the Principal)

Dr. SHIVABASAPPA K L
Principal, SCE

External VIVA:

Name of the examiners **Signature with date.**

1)_____ _____

2)_____ _____

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI
College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hessarghatta Main Road, Bangalore-560057

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **SOLAR TRACKING SYSTEM BY DOUBLE AXIS METHOD** is carried out collectively by **TEJAS S (1SG14EE080), VARUN G (1SG15EE451), SATYA SUNDAR BASUMATARY (1SG13EE051) and VIKRANT KUMAR PANDEY (1SG14EE084)** bonafide students of **8thsemester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2017-2018**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi Prof.& HOD EEE Dept	**Mrs. Ashwini C** AssistantProf. Guide	**Mrs. Jhansi K** Assistant Prof. Guide

Dr. Shivabasappa L
Principal

External Viva

Name of the examiners — Signature with date

1.

2.

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaragatta Main Road, Bangalore – 560057
[Affiliated to Visvesvaraya Technological University, Belagavi]

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the Project work entitled **SMART ENERGY METER MONITORING** carried out by **RAMKUMAR R P(1SG14EE062), MANOJ R(1SG14EE044), MITHUN H V(1SG14EE047), MANOJ M G(1SG14EE043)** bonafide students of 8th semester, in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-2018.

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposit in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

(Signature of guide)
Mrs. RAMYA M
Assistant professor, EEE

(Signature of HOD)
Dr. K N RAVI
Professor & HOD, EEE

25/5/18
(Signature of the Principal)
Dr. SHIVABASAPPA L
Principal, SCE

External VIVA:
Name of the examiners **Signature with date.**

1)_____ _____

2)_____ _____

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI
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#14/5, Chikkasandra, Hessarghatta Main Road, Bangalore-560057
Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **"ASSESSMENT OF FIBRE GLASS ROD BY WATER DIP METHOD"** is carried out collectively by **CHANDAN KUMAR(1SG13EE015), MUKUND KUMAR (1SG13EE034), ROHIT RANJAN(1SG13EE046) AND SHASHI KUMAR(1SG13EE055)** bonafide students of **8thsemester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2017-2018**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

----------	---------- 30/5/18	6/6/18 ----------
Dr K N Ravi	**Mr. Nagaraj H P**	**Dr. Shivabasappa K L**
Prof.& HOD	Asct. Prof	Principal
EEE Dept	(Guide)	SCE Bangalore

External Viva

Name of the examiners

1.

2.

Signature with date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
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Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"THREE PHASE FAULT ANALYSIS WITH AUTO RESET ON TEMPORARY FAULT AND PERMANENT TRIP OTHERWISE"** carried out by **NAGARAJU H** bearing **USN [1SG15EE424], PARAMESH HS** bearing **USN [1SG15EE430], SUNIL BG** bearing **USN [1SG15EE442], VARUN KUMAR G** bearing **USN [1SG15EE450],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Ashwini C	**Dr. K.N.Ravi**	**Dr. K L Shivabasappa**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Head of the Dept.)	S.C.E Bangalore

External Viva

Name of the examiners	Signature with date
1. ----------	----------
2. ----------	----------

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Bangalore- 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **SOLAR TRACKING SYSTEM BY DOUBLE AXIS METHOD** is carried out collectively by **TEJAS S (1SG14EE080), VARUN G (1SG15EE451), SATYA SUNDAR BASUMATARY (1SG13EE051) and VIKRANT KUMAR PANDEY (1SG14EE084)** bonafide students of **8thsemester EEE Dept**. in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the Academic year **2017-2018**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Dr K N Ravi Prof.& HOD EEE Dept	**Mrs. Ashwini C** AssistantProf. Guide	**Mrs. Jhansi K** Assistant Prof. Guide

28/5

Dr. Shivabasappa L
Principal

External Viva

Name of the examiners — Signature with date

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2.

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College of Engineering
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Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"SOLAR POWERED LED STREET LIGHT WITH AUTO INTENSITY"** carried out by **PAVITHRA.N.M** bearing USN **[1SG14EE057]**, **SNEHA.S** bearing USN **[1SG14EE072]**, **SUMATHI .G** bearing USN **[1SG14EE076]**. **SUSHMA.K.P** bearing USN **[1SG15EE443]**, bonafide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr.NAGARAJ.H.P	Dr. K.N.Ravi	Dr. Shivabasappa.K.L
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

Signature of the Guide
Mrs. PRETTHA.N.P
Asst. Professor
(Project Guide)

External Viva

Name of the examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

[AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY]

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the project work entitled **"Comparative Performance Study of Single Phase VSI & ZSI by Different Modulation Methods"** is carried out by **Mr. Arun S Raj** bearing USN-1SG15EE402, **Mr. Akhilesh B R** bearing USN-1SG15EE400,**Mr. Krishna Reddy** bearing USN-1SG15EE417 and **Mr. Manohar K** bearing USN-1SG15EE421, the bonafide students of 8th semester in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2017-2018**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. A. Dhamodaran	Dr. K. N. Ravi	Dr. K. L. Shivabasappa
Assistant Professor	Professor & HOD	Principal
(Project Guide)		

External Viva

Name of the Examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"SOLAR-WIND-RAIN INTEGRATED POWER GENERATION SYSTEM"**carried out by **DILIP M** bearing **USN [1SG14EE025], MANJUNATH S** bearing **USN[1SG15EE418], ARVIND B R** bearing **USN [1SG14EE018], MAHESH KUMAR M** bearing **USN [1SG14EE040],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

28/5/18

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. GURUPRASANNA	**Dr.K.N.Ravi**	**Dr. K L Shivabasappa**
Senior Lecturer, EEE Dept.	Professor & H.O.D	Principal
(Project Guide)	EEE Dept.	S.C.E. Bangalore

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

External Viva

Name of the examiners	**Signature with date**
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to Certify that the Project work entitled **"GENERATION OF HVDC BY 12 PULSE RECTIFIER USING MATLAB"** carried out collectively by **JYOTHI M (1SG14EE032), MADHUSHREE S (1SG14EE039), KIRANKUMAR H (1SG15EE416), MOUNESH A KAMBAR (1SG15EE423)** are bona fide student of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor Of Engineering** in Department of **Electrical and Electronics Engineering** of **Visvesvaraya Technological University (VTU) Belagavi** during the academic year **2017-18.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the bachelor of Engineering Degree.

.....

Dr.K.N.Ravi
Professor & HOD

26/5/18
.....

Dr.Shivabasappa.K L
Principal

.....

Mr.R. Rukmangada
Senior lecturer

EXTERNAL VIVA

Name of the examiners	Signature with the date
1.	.....
2.	.....

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
college of Engineering
Creating Tomorrow

Department of

ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"ANALYSIS OF HARMONIC DISTORTION AND REDUCTION USING FILTERS IN A TYPICAL INDUSTRIAL SYSTEM"** carried out by **ARPITHA B.G** bearing **USN [1SG15EE401], GURUDEEP M.C** bearing **USN [1SG15EE411], KARTHIK.M** bearing **USN [1SG15EE414], SANDHYA.C** bearing **USN [1SG13EE048],** bonafide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Bharath B.N	**Dr. K.N. Ravi**	**Dr. Shivabasappa L**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

30/5/18

External Viva

Name of the examiners	**Signature with date**
1.	
2.	

Principal
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Creating Tommorow

Department of
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CERTIFICATE

Certified that the project work entitled **"SOURCE CHARACTERISTICS FOR POLLUTION STUDIES"** carried out by **RITU KUMARI** bearing **USN [1SG14EE066], SANIYA ANJUM P** bearing **USN [1SG14EE068], SUSHMITHA.L** bearing **USN [1SG14EE078], SHALINI MISHRA** bearing **USN [1SG13EE053]**, bona fide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of	Signature of the	Signature of the	Signature of the
Mrs.Ashwini.C	**Mrs. Ramya.M**	**Dr. K.N.Ravi**	**Dr.Shivabasappa.K.L**
Asst.Professor	Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Project Guide)	(Guide & Head of the department)	S.C.E Bangalore

External Viva

Name of the examiners	Signature with date
1.	
2.	

Principal
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College of Engineering
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ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"EFFICIENCY ENHANCEMENT OF INVERTERS(UPS)"** carried out by **RAVI KIRAN.H** bearing **USN [1SG14EE065], SUMAN RAJ** bearing **USN [1SG14EE075], SUSHMA.R** bearing **USN [1SG14EE077], VISHWANATH.M** bearing **USN [1SG14EE086],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

29/5/18

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.Divya.N.S	**Dr. K.N.Ravi**	**Dr. Shivabasappa.K.L**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

Principal
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Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1.	.....
2.	.....

Principal
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Chikkasandra, Hesaraghatta Road,
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SAPTHAGIRI
College of Engineering

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"SOLAR-WIND-RAIN INTEGRATED POWER GENERATION SYSTEM"** carried out by **DILIP M** bearing **USN [1SG14EE025], MANJUNATH S** bearing **USN[1SG15EE418], ARVIND B R** bearing **USN [1SG14EE018], MAHESH KUMAR M** bearing **USN [1SG14EE040],** bona fide students of **Sapthagiri College Of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide
Mr. GURUPRASANNA
Senior Lecturer, EEE Dept.
(Project Guide)

Signature of the HOD
Dr.K.N.Ravi
Professor & H.O.D
EEE Dept.

28/5/18

Signature of the Principal
Dr. K L Shivabasappa
Principal
S.C.E. Bangalore

Principal
Sapthagiri College of Engineering
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External Viva

Name of the examiners | **Signature with date**

1.

2.

Principal
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Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering

Department of

ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"PLC BASED SUB-STATION CONTROL WITH BACKUP PROTECTION OF FEEDER AND AUTOMATIC PARALLEL OPERATION OF DISTRIBUTION TRANSFORMER"** carried out by **DEEPIKA H C** bearing **USN[1SG15EE408], DEVARAJA K** bearing **USN [1SG15EE409], GIRIDARSHAN K S** bearing **USN [1SG15EE410], KEERTHANA A** bearing **USN [1SG15EE415],** bonafide students of **Sapthagiri College Of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the principal
Mrs. Jhansi K	**Dr. K.N.Ravi**	**Dr. Shivabasappa.K L**
Asst. Professor	Professor & H.O.D	Principal
(Project Guide)	(Head of the Dept.)	S.C.E Bangalore

26/5/18

External Viva

Name of the examiners Signature with date

1.

2.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaragatta Main Road, Bangalore – 560057
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Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the Project work entitled **ROOF TOP PHOTOVOLTAIC STATION WITH SUPPLY TO GRID** carried out by **NAVEENKUMAR (1SG14EE048), SADDAMHUSSAIN K.A (1SG14EE067), TEJASH B.N (1SG15EE444), UMESHA K.S (1SG15EE448)** bonafide students of 8th semester, in partial fulfillment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2017-2018.

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposit in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

(Signature of guide)

Mr. MURALI KRISHNA K
Assistant professor, EEE

(Signature of HOD)

Dr. K N RAVI
Professor & HOD, EEE

30/5/18

(Signature of the Principal)

Dr. SHIVABASAPPA K.L
Principal, SCE

External VIVA:
Name of the examiners

Signature with date.

1)_____ _____

2)_____ _____

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINNERING

14/5,Chikkasandra, Hesarghatta Main Road,Bengaluru-560057

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **"ANALYSIS OF METAL OXIDE SURGE ARRESTER BLOCK-SIMULATION USING MATLAB SIMULINK"** carried out by **BHAVYALAKSHMI R** bearing USN **[1SG13EE013]**, **MEGHANA K** bearing USN **[1SG13EE031]**,**SOWNDARYA P** bearing USN **[1SG13EE058]**, **SHARATH S** bearing USN **[1SG14EE410]**, bonafied students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

(Signature of the guide)

Mrs.A.V.Ashwini

Assistant Professor,EEE

23/6/17

(Signature of the guide)

Mrs.A.M.Leela

Associate Professor,EEE

(Signature of the HOD)

Dr.K.N.Ravi

Professor and Head of dept.,EEE

(Signature of the principal)

Dr.Aswatha Kumar .M

Principal,SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva:

Name of the Examiner

1. Dr. K. N. RAVI
2. LAKSHMI KANTH REDDY

Signature with date:

23/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of

ELECTRICAL AND ELECTRONICS OF ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"SPEED SYNCHRONISATION OF MULTIPLE MOTORS"** has been carried out by **GIRISH N (1SG14EE403), KANTHRAJ L V (1SG14EE405), SATHISHA G S (1SG14EE408), UMESH T P (1SG14EE411)**, students of 8th semester, Department of Electrical and Electronics Engineering in partial fulfillment of requirements for the award of Bachelor's Degree in Electrical and Electronics Engineering by Visvesvaraya Technological University, Belagavi during academic year 2016-17. It is certified that, they completed the project satisfactorily.

Mr. Yousuf Madar
Assistant Professor
Project Guide

Mr. Rukmangada R.
Senior Lecturer
Project Guide

Dr.K N Ravi
HOD, Professor
SCE

Dr. Aswatha kumar M
Principle
SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

Name of Examiners	Signature with date
1.	.....
2. LAKSHMIKANTH REDDY	29/8/2017

SAPTHAGIRI COLLEGE OF ENGINNERING

14/5,Chikkasandra, Hesarghatta Main Road,Bengaluru-560057

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **"ANALYSIS OF METAL OXIDE SURGE ARRESTER BLOCK-SIMULATION USING MATLAB SIMULINK"** carried out by **BHAVYALAKSHMI R** bearing USN **[1SG13EE013]**, **MEGHANA K** bearing USN **[1SG13EE031]**,**SOWNDARYA P** bearing USN **[1SG13EE058]**, **SHARATH S** bearing USN **[1SG14EE410]**, bonafied students of **Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

(Signature of the guide)

Mrs.A.V.Ashwini

Assistant Professor,EEE

23/6/17

(Signature of the guide)

Mrs.A.M.Leela

Associate Professor,EEE

(Signature of the HOD)

Dr.K.N.Ravi

Professor and Head of dept.,EEE

(Signature of the principal)

Dr.Aswatha Kumar .M

Principal,SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva:

Name of the Examiner

1. Dr. K. N. RAVI
2. LAKSHMI KANTH REDDY

Signature with date:

23/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"Performance of rod rod gap for the measurement of hvdc"** carried out by **KANISHKA** bearing **USN [1SG13EE024], VAISHNAVI S.KULKARNI** bearing USN **[1SG13EE061],ICIRI GOWDA** bearing **USN [1SG131EE058], SHUSHANT KUMAR**bearing **USN [1SG13EE057]**,bonafied students of **Sapthagiri College Of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2016-2017.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Swetha.G	**Dr. K.N.Ravi**	**Dr. Aswatha Kumar**
AssistantProfessor	Professor& H.O.D	Principal
(Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

External Viva

Name of the examiners	**Signature with date**
1. K.J. Somashekara	28/6/17

SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of

ELECTRICAL AND ELECTRONICS OF ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"DEVELOPMENT OF ELECTROSTATIC GENERATOR"** has been carried out by **ANIL (1SG14EE400), KIRAN TS (1SG14EE406), RANJITHA C (1SG14EE407), SHANTAPPA UTAGI (1SG14EE409)**, students of 8th semester, Department of Electrical and Electronics Engineering in partial fulfillment of requirements for the award of Bachelor's Degree in Electrical and Electronics Engineering by Visvesvaraya Technological University, Belagavi during academic year 2016-17. It is certified that, they completed the project satisfactorily.

Mrs. Rekha S N	**Dr. K N Ravi**	**Dr. Aswatha kumar**
Associate Professor	HOD,Professor	Principal
Project Guide	Project Guide	SCE

HOD
Electronics Engineering
Sapthagiri College of Engineering
Bangalore - 560057

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of Examiners	Signature with date
1. Dr. K. N. RAVI	
2. LAKSHMIKANTH REDDY	24/6/2017

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of

ELECTRICAL AND ELECTRONICS OF ENGINEERING

CERTIFICATE

This is to certify that the project entitled "**DESIGN OF A MICROCONTROLLER BASED TORQUE MEASUREMENT CIRCUIT FOR BRAKE DYNAMOMETER TEST RIG**" has been carried out by **ARCHANA M(1SG13EE009), CHIRANJEEVI SRINIVAS L (1SG13EE016), SANGEETHA P (1SG13EE049), JEEVITHA P (1SG13EE064)**, students of 8th semester, Department of Electrical and Electronics Engineering in partial fulfillment of requirements for the award of Bachelor's Degree in Electrical and Electronics Engineering by Visvesvaraya Technological University, Belagavi during academic year 2016-17. It is certified that, they completed the project satisfactorily.

23/6/17

Mrs. DIVYA N S
Assistant Professor
Project Guide

Mr. GURUPRASANNA
Senior Lecturer
Project Guide

Dr. K N Ravi
HOD, Professor
SCE

Dr. Aswatha kumar M
Principle
SCE

Dr. Aswatha Kumar. M
Principal
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Hesaraghtta Main Road,
Bangalore-560 057

Name of Examiners | **Signature with date**

1. Dr. K. N. RAVI .....

2. LAKSHMIKANTH REDDY 24/6/2017

Principal
Sapthagiri College of Engineering
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Bengaluru - 560 057

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विमान अनुसंधान एवं अभिकल्प केन्द्र (ए आर डी सी)
अभिकल्प कॉम्प्लेक्स
हिन्दुस्तान एरोनाटिक्स लिमिटेड
मारतहल्ली पोस्ट, बेंगलूरु - 560 037, भारत
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AIRCRAFT RESEARCH & DESIGN CENTRE (ARDC)
DESIGN COMPLEX
HINDUSTAN AERONAUTICS LIMITED
Marathahalli Post, Bengaluru - 560 037, India
Ph. (दूरभाष) : 080 - 2232 4299, 2231 6774

D/ARDC/HR/PR/Proj/1059 /17

17.03.2017

CERTIFICATE

This is to certify that **Sangeetha P** who is a student of BE(EEE), Sapthagiri College of Engineering, Bangalore has undergone **Project Work** at HAL ARDC, Design Complex, Bangalore from 03.02.2017 to 17.03.2017 on **"No-Pay-No-Fee-Basis"**. The title of the Project Work is **"Design of a Microcontroller Based Torque Measurement Circuit for Brake Dynamometer Test Rig"**. She has been punctual, sincere and committed trainee. Her conduct has been Excellent.

The student brings in a lot of energy and enthusiasm in the work, she is structured in her approach and methodical in resolving a problem. She is resourceful and adaptive to working environment.

मानव संसाधन विभाग, ए आर डी सी
Human Resources Department ARDC

(Narasimhamurthy BS)
Senior Manager – (PR)
ARDC, Design Complex.

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
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विमान अनुसंधान एवं अभिकल्प केन्द्र (ए आर डी सी)
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हिन्दुस्तान एरोनाटिक्स लिमिटेड
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D/ARDC/HR/PR/Proj/1059/17

17.03.2017

CERTIFICATE

This is to certify that **Archana M** who is a student of BE(EEE), Sapthagiri College of Engineering, Bangalore has undergone **Project Work** at HAL ARDC, Design Complex, Bangalore from 03.02.2017 to 17.03.2017 on **"No-Pay-No-Fee-Basis".** The title of the Project Work is **"Design of a Microcontroller Based Torque Measurement Circuit for Brake Dynamometer Test Rig".** She has been punctual, sincere and committed trainee. Her conduct has been Excellent.

The student brings in a lot of energy and enthusiasm in the work, she is structured in her approach and methodical in resolving a problem. She is resourceful and adaptive to working environment.

मानव संसाधन विभाग, ए आर डी सी
Human Resources Department ARDC

(Narasimhamurthy BS)
Senior Manager – (PR)
ARDC, Design Complex.

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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विमान अनुसंधान एवं अभिकल्प केन्द्र (ए आर डी सी)
अभिकल्प कॉम्प्लेक्स
हिन्दुस्तान एरोनाटिक्स लिमिटेड
मारतहल्ली पोस्ट, बेंगलूरु - 560 037, भारत
Fax (फैक्स) : 080 - 2231 4320

AIRCRAFT RESEARCH & DESIGN CENTRE (ARDC)
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Marathahalli Post, Bengaluru - 560 037, India
Ph. (दूरभाष) : 080 - 2232 4299, 2231 6774

D/ARDC/HR/PR/Proj/1059 /17

17.03.2017

CERTIFICATE

This is to certify that **Jeevitha P** who is a student of BE(EEE), Sapthagiri College of Engineering, Bangalore has undergone **Project Work** at HAL ARDC, Design Complex, Bangalore from 03.02.2017 to 17.03.2017 on **"No-Pay-No-Fee-Basis"**. The title of the Project Work is **"Design of a Microcontroller Based Torque Measurement Circuit for Brake Dynamometer Test Rig"**. She has been punctual, sincere and committed trainee. Her conduct has been Excellent.

The student brings in a lot of energy and enthusiasm in the work, she is structured in her approach and methodical in resolving a problem. She is resourceful and adaptive to working environment.

मानव संसाधन विभाग, ए आर डी सी
Human Resources Department ARDC

(Narasimhamurthy BS)
Senior Manager – (PR)
ARDC, Design Complex.

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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विमान अनुसंधान एवं अभिकल्प केन्द्र (ए आर डी सी)
अभिकल्प कॉम्प्लेक्स
हिन्दुस्तान एरोनाटिक्स लिमिटेड
मारतहल्ली पोस्ट, बेंगलूरु - 560 037, भारत
Fax (फैक्स) : 080 - 2231 4320

AIRCRAFT RESEARCH & DESIGN CENTRE (ARDC)
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Ph. (दूरभाष) : 080 - 2232 4299, 2231 6774

D/ARDC/HR/PR/Proj/1059/17

17.03.2017

CERTIFICATE

This is to certify that **Chiranjeevi Srinivas L** who is a student of BE(EEE), Sapthagiri College of Engineering, Bangalore has undergone **Project Work** at HAL ARDC, Design Complex, Bangalore from 03.02.2017 to 17.03.2017 on **"No-Pay-No-Fee-Basis".** The title of the Project Work is **"Design of a Microcontroller Based Torque Measurement Circuit for Brake Dynamometer Test Rig".** He has been punctual, sincere and committed trainee. His conduct has been Excellent.

The student brings in a lot of energy and enthusiasm in the work, he is structured in his approach and methodical in resolving a problem. He is resourceful and adaptive to working environment.

मानव संसाधन विभाग, ए आर डी सी
Human Resources Department ARDC

(Narasimhamurthy BS)
Senior Manager – (PR)
ARDC, Design Complex.

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of

ELECTRICAL AND ELECTRONICS OF ENGINEERING

CERTIFICATE

Certified that the project entitled "EXPERIMENTAL STUDY IN BRITTLE FRACTURE OF POLYMERIC INSULATOR" carried out by **ARVIND KUMAR (1SG12EE007), BALRAM KUMAR (1SG12EE011), MANOJ R M (1SG12EE026), PUNEETTH T K (1SG13EE409)** bonafide students of 8th semester, in partial fulfillment for the award of Bachelor of Engineering in *Electrical and Electronics Engineering* from Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report deposit in the department library. This project report has been approved as it satisfies the academic requirements in report of project work prescribed for the said degree.

28/6/17

Mr.Nagaraj H P
(Associate professor)
(Project Guide)

Dr. K N Ravi
(Project Guide)
Professor & HOD

Professor & HOD
Department of Electrical & Electronics Engineering
Sapthagiri College of Engineering
BANGALORE - 560 057

Dr. Ashwatha kumar M
(Principal)
sapthagiri college of engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

Name of Examiners	**Signature with date**
1. K.J. Somashekara	28/6/17
2. Nagaraj H.P	28/6/17

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaragatta Main Road, Bangalore – 560057
[Affiliated to Visvesvaraya Technological University, Belagavi]

SAPTHAGIRI
College of Engineering

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the Project work entitled "**INTEGRATED CIRCUIT DESIGN FOR ALH DC SYSTEM**" carried out by **ALKA YAGNI (1SG13EE006), M YUVARAJ (1SG13EE029), MEGHANA KL (1SG13EE032), MITHUN GOWDA B (1SG13EE033)** bonafied students of 8th semester, in partial fulfillment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2016-2017.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposit in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

(Signature of guide)

Mrs. REKHA S N

Associate professor, EEE

(Signature of guide)

Mr.RUKMANGADA R

Senior professor, EEE

(Signature of HOD)

Dr. K N RAVI

Professor and HOD, EEE, SCE

(Signature of the Principal)

Dr. ASWATHA KUMAR

Principal, SCE

External VIVA:

Name of the examiners	**Signature with date.**
1) Dr. K. N. RAVI	
2) LAKSHMI KANTH REDDY	24/6/2017

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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मानव ससाधन विभाग
हेलिकॉप्टर प्रभाग (हेका)
हिन्दुस्तान एरोनाटिक्स लिमिटेड
पोस्ट बैग संख्या1790, बेंगलूर-560017, भारत

HR DEPARTMENT
HELICOPTER DIVISION (HC)
HINDUSTAN AERONAUTICS LIMITED
Post Bag No.1790, Bangalore-560 017, India
Ph. (दूरभाष) 91-80-2231 7891, 2232 2918
Fax (फैक्स) 91-80-22314717

Ref: H/A/CM (HR)/866/17

March 25, 2017

CERTIFICATE

This is to certify that Ms. Meghana K L (USN. No.1SG13EE032), student of BE-Electrical & Electronics Engineering, Sapthagiri College of Engineering, Bangalore, has undergone "Project Work" titled "Integrated Circuit Design for ALH DC System" in ALH Flight Hangar, HAL-Helicopter Division from 24.01.2017 to 23.03.2017.

2. Her Punctuality, Conduct, Behaviour and Progress during the period of "Project Work" was good, as rated by Department Head.

For HAL-Helicopter Division

25/3/2017

(Prem Lal Horo)
Deputy Manager (HR)

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
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SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of

ELECTRICAL AND ELECTRONICS OF ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"SPEED SYNCHRONISATION OF MULTIPLE MOTORS"** has been carried out by **GIRISH N (1SG14EE403), KANTHRAJ L V (1SG14EE405), SATHISHA G S (1SG14EE408), UMESH T P (1SG14EE411)**, students of 8th semester, Department of Electrical and Electronics Engineering in partial fulfillment of requirements for the award of Bachelor's Degree in Electrical and Electronics Engineering by Visvesvaraya Technological University, Belagavi during academic year 2016-17. It is certified that, they completed the project satisfactorily.

Mr. Yousuf Madar
Assistant Professor
Project Guide

Mr. Rukmangada R.
Senior Lecturer
Project Guide

Dr.K N Ravi
HOD, Professor
SCE

Dr. Aswatha kumar M
Principle
SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of Examiners

1. .....

2. LAKSHMIKANTH REDDY

Signature with date

.....

29/8/2017

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaragatta Main Road, Bangalore – 560057
[Affiliated to Visvesvaraya Technological University, Belagavi]

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the Project work entitled **HYBRID MICROGRID** carried out by **BHAVYA B (1SG13EE012), KAVYASHREE A (1SG13EE026), RAMYA M (1SG13EE043), SHILPA L (1SG13EE056)** bonafied students of 8th semester, in partial fulfilment for the award of Bachelor of Engineering in Electrical and Electronics Engineering of the Visvesvaraya Technological University, Belagavi during the year 2016-2017.

It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposit in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

(Signature of guide)
Mrs. REKHA S N
Associate professor, EEE

(Signature of guide)
Mrs. JHANSI K
Assistant professor, EEE

(Signature of HOD)
Dr. K N RAVI
Professor & HOD, EEE

Professor & HOD
Department of Electrical &
Engineering
Sapthagiri College of Engineering
BANGALORE - 560 057

(Signature of the Principal)
Dr. ASWATHA KUMAR
Principal, SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External VIVA:

Name of the examiners	**Signature with date.**
1) Dr. K. N. RAVI	24/6/17
2) LAKSHMIKANTH REDDY	24/6/2017

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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21/06/2017

Certificate of Completion of Internship

This is to certify that Ms. Bhavya B from Sapthagiri College of Engineering, Karnataka has completed Internship / Project in ABB India Ltd, Bangalore-Peenya as partial fulfillment of the University course requirements from 02/Feb/2017 to 26/May/2017.

During this period Bhavya B has completed a project on "Hybrid Micro Grid" under the guidance of Mr. Anil Talluri (Associate Principal Engineer, PG - PGGA) Bangalore-Peenya.

During this period, she proved to be resourceful, hardworking and a fast learner.

We wish her all the best for her future endeavors.

For ABB India Ltd,

Giridhara K
Manager-Payroll

Syed Shabuddin
HR Specialist

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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21/06/2017

Certificate of Completion of Internship

This is to certify that Ms. Ramya M from Sapthagiri College of Engineering, Karnataka has completed Internship / Project in ABB India Ltd, Bangalore-Peenya as partial fulfillment of the University course requirements from 02/Feb/2017 to 26/May/2017.

During this period Ramya M has completed a project on "Hybrid Micro Grid" under the guidance of Mr. Anil Talluri (Associate Principal Engineer, PG - PGGA) Bangalore-Peenya.

During this period, she proved to be resourceful, hardworking and a fast learner.

We wish her all the best for her future endeavors.

For ABB India Ltd,

Giridhara K
Manager-Payroll

Syed Shabuddin
HR Specialist

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

ABB India Limited
Global Business Services
5,6,7th Floor, Brigade Magnum
Kodigehalli Post

CIN: U72200KA2001PTC032179

Phone : +91 80 2294 1999
Fax : +91 80 2294 1998

Registered Office and Corporate Office
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Brigade Gateway, No. 26/1
Dr. Rajkumar Road, Malleshwaram West

Phone : +91 80 2294 9150 - 54
Fax : +91 80 2294 9148

www.abb.com/in

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21/06/2017

Certificate of Completion of Internship

This is to certify that Ms. Kavyashree A from Sapthagiri College of Engineering, Karnataka has completed Internship / Project in ABB India Ltd, Bangalore-Peenya as partial fulfillment of the University course requirements from 02/Feb/2017 to 26/May/2017.

During this period Kavyashree A has completed a project on "Hybrid Micro Grid" under the guidance of Mr. Anil Talluri (Associate Principal Engineer, PG - PGGA) Bangalore-Peenya.

During this period, she proved to be resourceful, hardworking and a fast learner.

We wish her all the best for her future endeavors.

For ABB India Ltd,

Giridhara K
Manager-Payroll

Syed Shabuddin
HR Specialist

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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21/06/2017

Certificate of Completion of Internship

This is to certify that Ms. Shilpa L from Sapthagiri College of Engineering, Karnataka has completed Internship / Project in ABB India Ltd, Bangalore-Peenya as partial fulfillment of the University course requirements from 02/Feb/2017 to 26/May/2017.

During this period Shilpa L has completed a project on "Hybrid Micro Grid" under the guidance of Mr. Anil Talluri (Associate Principal Engineer, PG - PGGA) Bangalore-Peenya.

During this period, she proved to be resourceful, hardworking and a fast learner.

We wish her all the best for her future endeavors.

For ABB India Ltd,

Giridhara K
Manager-Payroll

Syed Shabuddin
HR Specialist

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bangaluru - 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of

ELECTRICAL AND ELECTRONICS OF ENGINEERING

CERTIFICATE

Certified that the project entitled "**Comprehensive, transformer health monitoring system**" carried out by ***Keerthan Reddy G K(1SG13EE027), Abdul Razak H S (1SG13EE002), Kavya (1SG13EE025), Neha P J(1SG13EE036)***bonafide students of 8th semester,in partial fulfillment for the award of Bachelor of Engineering in *Electrical and Electronics Engineering* from Visvesvaraya Technological University, Belagavi during the year 2016-2017. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report deposit in the department library. This project report has been approved as it satisfies the academic requirements in report of project work prescribed for the said degree.

Mr. Guruprasanna
Sr. Lecturer
(Project Guide)

Mrs. Ahwini C
Asst. Professor
(Project guide)

Dr.K N Ravi
HOD & Professor
Sapthagiri College of Engineering

Professor & HOD
Department of Electrical & Electronics Engineering
Sapthagiri College of Engineering
BANGALORE - 560 057

Dr. Aswatha kumar M
Principle
Sapthagiri College of Engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of Examiners

1. K. J. Somashekara
2. N. Nagaraj H P

Signature with date

K J Somashekara 28/6/17

28/6/17

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bangaluru - 560 057

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Life Is On | Schneider Electric

Date 30th
May 2017

Certificate of completion of Final Year BE Project

This is to certify that Mr. KEERTHAN REDDY G K from Sapthagiri College of Engineering, Karnataka has completed Final Year Project work at Schneider Electric Infrastructure Limited Bengaluru as a partial fulfilment of the university course requirements from January-2017 to May-2017

During this period KEERTHAN REDDY G K has completed a project on **"Comprehensive Transformer health monitoring system"** under the guidance of Mr. ANIL KADAM (General Manager - (Solution Architect - Smart Grid / Smart Cities) and Business Development (Energy BU)) Bengaluru.

During this period, he proved to be resourceful, hardworking and a fast learner.
We wish him all the best for his future endeavours.

For Schneider Electric Infrastructure Limited,
(Guide's signature, name & designation)

A. Anil Kumar Kadam

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bangaluru - 560 057

Schneider Electric Infrastructure Limited
4th Floor, Electra, Wing 'A', Exora Business Park, Marathahalli
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Regd. Office: Milestone 87, Vadodara - Halol Highway, Village Kotambi
Post Office Jarod, Vadodara - 391 510, Gujarat
Tel: 02668 662000 Fax: 02668 662200
CIN No: L31900GJ2011PLC064420

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Life Is On | Schneider Electric

Date 30th
May 2017

Certificate of completion of Final Year BE Project

This is to certify that Mr. ABDUL RAZAK H S from Sapthagiri College of Engineering, Karnataka, has completed Final Year Project work at Schneider Electric Infrastructure Limited Bengaluru as a partial fulfilment of the university course requirements from January-2017 to May-2017

During this period ABDUL RAZAK H S has completed a project on **"Comprehensive Transformer health monitoring system"** under the guidance of Mr. ANIL KADAM (General Manager - (Solution Architect - Smart Grid / Smart Cities) and Business Development (Energy BU)) Bengaluru.

During this period, he proved to be resourceful, hardworking and a fast learner.
We wish him all the best for his future endeavours.

For Schneider Electric Infrastructure Limited,
(Guide's signature, name & designation)

A. Anil Kumar Kadam

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bangaluru - 560 057

Schneider Electric Infrastructure Limited
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Tel: 02668 662000 Fax: 02668 662200
CIN No: L31900GJ2011PLC064420

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Date 30th
May 2017

Certificate of completion of Final Year BE Project

This is to certify that Mrs. KAVYA from Sapthagiri College of Engineering, Karnataka, has completed Final Year Project work at Schneider Electric Infrastructure Limited Bengaluru as a partial fulfilment of the university course requirements from January-2017 to May-2017

During this period KAVYA has completed a project **"Comprehensive Transformer health monitoring system"** under the guidance of Mr. ANIL KADAM (General Manager - (Solution Architect - Smart Grid / Smart Cities) and Business Development (Energy BU)) Bengaluru.

During this period, she proved to be resourceful, hardworking and a fast learner.
We wish him all the best for his future endeavours.

For Schneider Electric Infrastructure Limited,
(Guide's signature, name & designation)

A. Anil Mukadam

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

Schneider Electric Infrastructure Limited
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Tel: 02668 662000 Fax: 02668 662200
CIN No.: L31900GJ2011PLC064420

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Date 30th
May 2017

Certificate of completion of Final Year BE Project

This is to certify that Mrs. NEHA P J from Sapthagiri College of Engineering, Karnataka has completed Final Year Project work at Schneider Electric Infrastructure Limited Bengaluru as a partial fulfilment of the university course requirements from January-2017 to May-2017

During this period NEHA P J has completed a project on **"Comprehensive Transformer health monitoring system"** under the guidance of Mr. ANIL KADAM (General Manager - (Solution Architect - Smart Grid / Smart Cities) and Business Development (Energy BU)) Bengaluru.

During this period, she proved to be resourceful, hardworking and a fast learner.
We wish him all the best for her future endeavours.

For Schneider Electric Infrastructure Limited,
(Guide's signature, name & designation)

A. Anil Kumar Kadam

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bangaluru - 560 057

Schneider Electric Infrastructure Limited
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CIN No: L31900GJ2011PLC064420

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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

[AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI]

SAPTHAGIRI
College of Engineering

Department of Electrical and Electronics Engineering

CERTIFICATE

This is to certify that the Project work entitled **"MEASUREMENT OF IONIC CURRENT UNDER DC VOLTAGE"** is a bonafide work carried by **ABHIMANYU KUMAR (1SG13EE003), GHANSHYAM CHOUDHARY (1SG12EE018), PRAMOD KUMAR MISHRA (1SG13EE039)** and **PRASHANT GAURAV (1SG13EE040)** a bonafide student of 8th semester in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical and electronics engineering** of **Visvesvaraya Technological University**, **Belagavi** during the academic year **2016-17.**It is certified that seminar report satisfies the academic requirements of seminar work prescribed for the bachelor of engineering degree.

Mrs. RAMYA M
Assistant Professor
(Project guide)

Dr. K N RAVI
Prof.&HOD
(Project guide)

Professor & HOD
Department of Electrical & Electronics Engineering
Sapthagiri College of Engineering
BANGALORE - 560 057

Dr. Aswatha kumar M
Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of Examiners **Signature with Date**

1. Dr.K.N.RAVI
2. LAKSHMIKANTH REDDY 23/6/17

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bangalore - 560 057

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SAPTHAGIRI
College of Engineering
Creating Tommorrow

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the project work entitled **"Performance of rod rod gap for the measurement of hvdc"** carried out by **KANISHKA** bearing **USN [1SG13EE024], VAISHNAVI S.KULKARNI** bearing USN **[1SG13EE061],ICIRI GOWDA** bearing **USN [1SG131EE058], SHUSHANT KUMAR**bearing **USN [1SG13EE057],**bonafied students of **Sapthagiri College Of Engineering** in partial fulfilment for the award of **Bachelor of Engineering** in department of **Electrical and Electronics Engineering** of Visvesvaraya Technological University, Belagavi during the academic year 2016-2017.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

27/6/17	27/6/17	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mrs. Swetha.G	**Dr. K.N.Ravi**	**Dr. Aswatha Kumar**
AssistantProfessor	Professor& H.O.D	Principal
(Guide)	(Guide & Head of the Dept.)	S.C.E Bangalore

External Viva

Name of the examiners	**Signature with date**
1. K.J. Somashekara	K.J.Somashekara 28/6/17
2. Nagaraj H.P	28/6/17

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
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SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

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SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of

ELECTRICAL AND ELECTRONICS OF ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"DEVELOPMENT OF ELECTROSTATIC GENERATOR"** has been carried out by **ANIL (1SG14EE400), KIRAN TS (1SG14EE406), RANJITHA C (1SG14EE407), SHANTAPPA UTAGI (1SG14EE409)**, students of 8th semester, Department of Electrical and Electronics Engineering in partial fulfillment of requirements for the award of Bachelor's Degree in Electrical and Electronics Engineering by Visvesvaraya Technological University, Belagavi during academic year 2016-17. It is certified that, they completed the project satisfactorily.

Mrs. Rekha S N	**Dr. K N Ravi**	**Dr. Aswatha kumar**
Associate Professor	HOD,Professor	Principal
Project Guide	Project Guide	SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of Examiners	**Signature with date**
1. Dr. K. N. RAVI	
2. LAKSHMIKANTH REDDY	24/6/2017

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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SAPTHAGIRI COLLEGE OF ENGINEERING

No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

SAPTHAGIRI
College of Engineering

Department of

ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project "AUTOMATED EQUIPOTENTIAL CURVE MAPPING USING 2 AXIS PLOTTER" is presented by AKSHAY P.L (1SG13EE005), SAMPATH KUMAR SHETTYK (1SG13EE047), SUBRAHMANYAH.S (1SG13EE059), VIPINRAJ R (1SG13EE062) for the award of Bachelor of Engineering in *Electrical and Electronics Engineering* from Visveswaraya Technological University, Belagavi during the year 2016-2017. It is certified that project report satisfies the academic requirements of project work prescribed for the bachelor of engineering degree.

22/6/17

Mrs. DIVYA N.S	**Dr. K.N.RAVI**	**Dr. ASHWATHA KUMAR M**
Assistant professor	**Head of the Dept., EEE**	**Principal**
(Project Guide)	**Professor & HOD (Project Guide)**	**SCE**

Professor & HOD
Department of Electrical & Electronics Engineering
Sapthagiri College of Engineering
BANGALORE - 560 057

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bengaluru - 560 057

External Viva:

Name of the Examiners **Signature with date**

1. Dr. K. N. RAVI
2. LAKSHMIKANTH REDDY 23/6/17

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
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BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF ELECTRICALAND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"DEVELOPMENT OF WHEELS FORWARD ELECTRIC TRIKE"** has been satisfactorily completed by **CHANDAN KUMAR NEWATIA (1SG11EE010), RAVI KUMAR H (1SG11EE037), SACHIN A (1SG12EE407) and LIKITH K A (1SG13EE406)**, students of 8th semester, Department of Electrical AND ELECTRONICS Engineering in partial fulfillment of requirements for the award of Bachelor's Degree in Electrical and Electronics Engineering by Visvesvaraya Technological University, Belagavi during academic year 2016-17.

Signature of the Guide
Mr. DHAMODARAN A
Asst. professor, Dept of EEE

Signature of the Guide
Mrs. Ashwini C
Asst. professor, Dept of EEE

Signature of the HOD
Dr. K N Ravi
HOD, Dept of EEE
Professor & HOD
Department of Electrical & Electronics Engineering
Sapthagiri College of Engineering
BANGALORE-560057

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra
Hesaraghatta Main Road
Bangalore-560 057

Signature of the Principal
Dr. Aswatha Kumar M
Principal, Sapthagiri college of engineering

Name of Examiners	**Signature with date**
1. K.S. Somashekara	28/6/2017
2. Nagaraj. H.P	28/6/2017

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057
DEPARTMENT OF ELECTRICAL AND ELECTRONICS

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the project work entitled **"MULTILEVEL INVERTER"** is carried out collectively by **ANSHU KUMAR (1SG12EE005), ASHUTOSH KUMAR (1SG12EE009), MRITUNJAY KUMAR PRAVEEN (1SG12EE027)** and **RAVI PRAKASH (1SG12EE035),**bonafide students of **8th semester electrical and electronics engineering** in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri college of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** during the academic year **2015-2016**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mrs. S N Rekha Associate Prof.	**Mr. Rukmangada R** Senior Lecturer	**Mrs. Sushma R** Assistant Prof.
Dr. K N Ravi Prof. & HOD, EEE	**Dr. Aswatha Kumar M** Principal, SCE	

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,

Name of examiner **Signature with Date**

1 .....

2. Shivakumara Swamy. R. .....

9/6/2016

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 57

DEPT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the study and project presentation on the subject entitled **"SINUSOIDAL PULSE WIDTH MODULATION INVERTER"** is a bonafide work carried out by **DHARANEESH.M.H** (1SG13EE403), **JAYANTH.K** (1SG12EE021), **SUBRAHMANYA SHRIDHARA SHASTRI** (1SG12EE047), **SANDEEPA** (1SG12EE038) in partial fulfillment for the award of Degree of **Bachelor of Engineering** in **Electrical and Electronics** of the **Visvesvaraya Technological University, Belagavi** during the year 2015 -2016. It is certified that all corrections or suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.

Mr.RUKMANGADA.R	Ms.MANJULA.N	Mrs.KRUPA.Y	Dr.K.N.RAVI	Dr. ASWATHA KUMAR.M
Senior Lecturer	Asst Prof	Asst Prof	Prof & HOD	Principal
Dept, EEE	Dept, EEE	Dept, EEE	Dept, EEE	SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiner	Signature with date
1. A-M-Leela.	10/6/16
2. G Srinivas	10/6/16

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

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DEPT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the study and project presentation on the subject entitled **"SINUSOIDAL PULSE WIDTH MODULATION INVERTER"** is a bonafide work carried out by **DHARANEESH.M.H** (1SG13EE403), **JAYANTH.K** (1SG12EE021), **SUBRAHMANYA SHRIDHARA SHASTRI** (1SG12EE047), **SANDEEPA** (1SG12EE038) in partial fulfillment for the award of Degree of **Bachelor of Engineering** in **Electrical and Electronics** of the **Visvesvaraya Technological University, Belagavi** during the year 2015 -2016. It is certified that all corrections or suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.

Mr.RUKMANGADA.R	Ms.MANJULA.N	Mrs.KRUPA.Y	Dr.K.N.RAVI	Dr. ASWATHA KUMAR.M
Senior Lecturer	Asst Prof	Asst Prof	Prof & HOD	Principal
Dept, EEE	Dept, EEE	Dept, EEE	Dept, EEE	SCE

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiner — Signature with date

1.

2.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

Department of
ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled "MICROPROCESSOR BASED OVER CURRENT PROTECTION FOR DC MOTOR" is a bonafide work carried out by ALOK KHAN (1SG12EE003), RAJU KUMAR JAYSWAL (1SG12EE063), MANVENDRA SINGH (1SG11EE019) and ROOPAK PATIL (1SG11EE039) in partial fulfillment for the degree of Bachelor of Engineering in Electrical and Electronics Engineering from the Visvesvaraya Technological University, Belagavi during the year 2015-2016. It is certified that seminar report satisfies the academic requirements of seminar work described for the Bachelor of Engineering degree.

Mrs Rekha S. N.	Mrs.Ramya M.	Mrs.Jhansi k
Associate Prof.	Assistant Prof.	AssistantProf.
Project Guide	Project Guide	Project Guide

Dr. K N Ravi
HOD, Prof.
EEE, SCE

Dr. Aswatha Kumar M
Principal
SCE

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
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Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the examiners **External VIVA:** **Signature with date**

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Hesaraghatta Main Road, Chikkasandra, Bengaluru, Karnataka 560057

Department of Electrical and Electronics Engineering

CERTIFICATE

Certified that the project work entitled **"PERFORMANCE EVALUATION OF HYBRID INSULATOR"** carried out by **PRAHARSHA.S (1SG11EE030), NAGARJUN.K (1SG11EE024), PRASHANTH KUMAR.G (1SG11EE031), RAKESH.D (1SG11EE036),** bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING,** in partial fulfillment for the award of **Bachelor of Engineering** in **Electrical & Electronics Engineering of Visvesvaraya Technological University, Belgaum** during the academic year **2014-15**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Sushma.R

Signature of the Guide
Mrs. Sushma. R
Assistant professor

Signature of the HOD
Dr.K.N.Ravi
Professor & Head of dept.

Signature of the principal
Dr. Aswatha Kumar. M
Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of the examiner	Signature with date
1. ..... Dr.K.N.RAVI	1. .....
2. Chandrashekhar A Badachi	2. ..... 03/06/15

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

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ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
ಎಲೆಕ್ಟ್ರೋಪೋರ್ಸಲೇನ್ಸ್ ಡಿವಿಜನ್, ಬೆಂಗಳೂರು-560 012

भारत हेवी इलेक्ट्रिकल्स लिमिटेड
इलेक्ट्रोपोर्सलेन्स डिवीज़न, बेंगलूर-560 012

Bharat Heavy Electricals Limited
(A GOVERNMENT OF INDIA UNDERTAKING)
ELECTROPORCELAINS DIVISION
P.B. No. 1245, Prof. C.N.R. Rao Circle, Science Institute Post,
Malleswaram, BANGALORE - 560 012 INDIA
Website : www.bhelceramics.com

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Fax : 080-23344231
Grams : PORCELAIN

REF : EPD:3405:020:PRJ:13
DT : 23.05.2015

CERTIFICATE

CERTIFIED THAT

Mr. NAGARJUN K 1SG11EE024

Mr. PRASHANTH KUMAR G 1SG11EE031

Mr. PRAHARSHA S 1SG11EE030

Mr. RAKESH D 1SG11EE036

Who are pursuing studies for the award of Degree in **BE** from "**Sapthagiri College of Engineering,** " have completed the Project Work on "**PERFORMANCE EVALUATION OF HYBRID INSULATOR**" in BHEL-EPD, Bangalore from 19.01.2015 to 14.02.2015.

The above mentioned students have submitted the Project Report on the above Project Study.

Principal
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(S KUMARASWAMY)
MANAGER/ LC & HRD

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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore – 57

DEPT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the study and project presentation on the subject entitled **"STUDY ON THERMAL BEHAVIOUR OF TRANSFORMER OIL"** is a bonafide work carried out by **Mr. ADARSH K (1SG12EE400),Mr. DEEPAK N (1SG12EE402), Mr. PRAVEEN KUMAR B Y (1SG11EE405),Mr. SANTHOSH KUMAR M (1SG12EE408)**, in partial fulfillment for the award of Degree of **Bachelor of Engineering** in **Electrical and Electronics** of the Visvesvaraya Technological University, Belgaum during the year 2014 -2015. It is certified that all corrections or suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.

Mr.YOUSUF MADAR R **Assistant Professor** **Dept, EEE**	**Dr. K.N.RAVI** **Professor & HOD** **Dept, EEE**	**Dr. ASWATH KUMAR M** **Principal**

PROF & HOD
Dept. of Electrical & Electronics Engineering
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Dr. Aswatha Kumar. M
Principal
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Name of the Examiner	Signature with date
1.	
2. Dr. K.N.RAVI	

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Mr.YOUSUF MADAR R	**Dr. K.N.RAVI**	**Dr. ASWATH KUMAR M**
Assistant Professor	**Professor & HOD**	**Principal**
Dept, EEE	**Dept, EEE**	

PROF & HOD
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Dr. Aswatha Kumar. M
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External Viva

Name of the Examiner	Signature with date
1. Prof V K M	
2. Dr. K N RAVI	

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Department of Electrical and Electronics Engineering

SAPTHAGIRI
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CERTIFICATE

Certified that the project work entitled **"PLC BASED AUTOMATION OF METAL HANDLING IN STEEL PLANT"** carried out by **ANKAN NANDI (1SG11EE004), ASHWIN J (1SG11EE007), CHANDAN KUMAR (1SG11EE009), SHUBHAM KUMAR (1SG11EE045)**, bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING**, in partial fulfilment for the award of **Bachelor of Engineering** in **Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belgaum** during the academic year **2014-15**. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide
Mr. A. Dhamodaran
Asst. Professor

Signature of the Guide
Mr. R. Rukmangada
Sr. Lecturer

Signature of the HOD
Dr K.N. Ravi
Professor and HOD

Signature of the Principal
Dr Aswatha Kumar M.
Principal

Dr. Aswatha Kumar. M
Principal
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Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

Name of the Examiners **Signature of the Examiners**

1.....

1.....

भारत हेवी इलेक्ट्रिकल्स लिमिटेड
(भारत सरकार का उपक्रम)
Bharat Heavy Electricals Limited
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बेंगलूर - 560 012
Prof. CNR Rao Circle
P B. No.1249, IISc post
Bangalore-560 012

(HUMAN RESOURCE MANAGEMENT)

IS-02-HRD-17/175/BMC/2014-15 **May 21, 2015**

CERTIFICATE

This is to certify that **Mr. Ankan Nandi,** who is pursuing his studies for the award of **B.E. (Electrical & Electronics)** from **Sapthagiri College of Engineering, Bangalore** has successfully completed his **Project Work** in the subject of **"PLC Based Automation of Metal Handling in Steel Plant"** at **Industrial Systems Group, Bharat Heavy Electricals Limited**.

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C. Ramu-Jo

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उप महाप्रबंधक/मा.सं
DY.GENERAL MANAGER/HR
BHEL-ISG, IISc POST, BANGALORE - 12

Chief Training Coordinator /HRD

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IS-02-HRD-17/178/BMC/2014-15

May 21, 2015

CERTIFICATE

This is to certify that **Mr. Ashwin J,** who is pursuing his studies for the award of **B.E. (Electrical & Electronics)** from **Sapthagiri College of Engineering, Bangalore** has successfully completed his **Project Work** in the subject of **"PLC Based Automation of Metal Handling in Steel Plant"** at **Industrial Systems Group, Bharat Heavy Electricals Limited.**

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IS-02-HRD-17/176/BMC/2014-15 **May 21, 2015**

CERTIFICATE

This is to certify that **Mr. Chandan Kumar,** who is pursuing his studies for the award of **B.E. (Electrical & Electronics)** from **Sapthagiri College of Engineering, Bangalore** has successfully completed his **Project Work** in the subject of **"PLC Based Automation of Metal Handling in Steel Plant"** at **Industrial Systems Group, Bharat Heavy Electricals Limited.**

C. Banumathi

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DY.GENERAL MANAGER/HR
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IS-02-HRD-17/177/BMC/2014-15 **May 21, 2015**

CERTIFICATE

This is to certify that **Mr. Shubham Kumar,** who is pursuing his studies for the award of **B.E. (Electrical & Electronics)** from **Sapthagiri College of Engineering, Bangalore** has successfully completed his **Project Work** in the subject of **"PLC Based Automation of Metal Handling in Steel Plant"** at **Industrial Systems Group, Bharat Heavy Electricals Limited.**

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DEPT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

Certified that the study and project presentation on the subject entitled **"STUDY ON THERMAL BEHAVIOUR OF TRANSFORMER OIL"** is a bonafide work carried out by **Mr. DEEPAK (1SG12EE402)** in partial fulfillment for the award of Degree of **Bachelor of Engineering** in **Electrical and Electronics** of the Visvesvaraya Technological University, Belgaum during the year 2014 -2015. It is certified that all corrections or suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the Bachelor of Engineering Degree.

Mr.YOUSUF MADAR R	**Dr. K.N.RAVI**	**Dr. ASWATH KUMAR M**
Assistant Professor	**Professor & HOD**	**Principal**
Dept, EEE	**Dept, EEE**	**Dr. Aswatha Kumar. M**
	PROF & HOD	**Principal**
	Dept. of Electrical & Electronics Engineering	**Sapthagiri College of Engineering**
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	Bangalore - 560057	**Hesaraghatta Main Road,**
		Bangalore -560 057.

External Viva

Name of the Examiner	Signature with date
1. V. Kadam	9/6/15
2.	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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CERTIFICATE

This is to certify that the project work entitled **"BIDIRECTIONAL POWER CONVERTER: for electric vehicle with charging feature"** is a bonafide work carried out by **ABHINAV KUMAR (1SG11EE002), ANJALI (1SG11EE003), APPU PRASAD (1SG11EE006),GAYATHRI S(1SG11EE012),** in partial fulfillment for the award of degree in **Bachelor of Engineering in Electrical & Electronic Engineering of VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belgaum** for the academic year **2014-15.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library .This project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mrs. S.N. REKHA
Associate Prof.

Dr. K.N. RAVI
HOD, Dept. of EEE

Dr. ASWATHA KUMAR M.
Principal

Dr. Aswatha Kumar. M
Principal
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Name of the Examiner **Signature with Date**

1. Dr. K. N. RAVI

2.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

This is to certify that the project work entitled **"REAL TIME MONITORING OF MACHINE PARAMETERS"** is a bonafide work carried by **RANSHITH.M (1SG05EE042)** and **KISHORE KUMAR M.V (1SG09EE025)** in partial fulfillment of project work of 8th semester, **"Bachelor of Engineering"** in Electrical and Electronics Engineering under **"Visvesvaraya Technologial University(VTU), Belgaum** during the year 2014-2015. It is certified that all corrections/suggestions indicated for internal assessment has been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements prescribed for the said degree.

Mrs. S N REKHA	**Dr. K.N. Ravi**	**Dr. Aswatha Kumar M**
(Associate Prof , EEE Dept)	(Professor & HOD, Dept of EEE)	(Principal)

Dr. Aswatha Kumar. M
Principal
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Name of the examiners **Signature with date**

1) Dr. K. N. RAVI

2) Chandrashekhar A Badachi 10/05/15

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

CERTIFICATE

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Mrs. S N REKHA	**Dr. K.N. Ravi**	**Dr. Aswatha Kumar M**
(Associate Prof , EEE Dept)	(Professor & HOD, Dept of EEE)	(Principal)

Dr. Aswatha Kumar. M
Principal
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Name of the examiners	**Signature with date**
1) Dr. K. N. RAVI	
2) Chandrashekhar A Badachi	10/6/15

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[AFFILIATED TO VIVSVESWARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled "**Point of Interest Recommendation based on LBSNs**" carried out by **B H Sumanth (1SG15IS029), B Shivalinga Reddy (1SG15IS030), Chetan S C (1SG15IS040), Mohankumar B C (1SG15IS064)** bonafide students of 8th semester, Department of **Information Science & Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Vineetha B 10/06/19	H K Ranga	10/6
Prof. VINEETHA B Asst. Professor, ISE **Signature of the Guide**	Dr. H R RANGANATHA HOD, ISE **Signature of the HOD**	Dr. K L SHIVABASAPPA Principal, SCE **Signature of the Principal**

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanan. D	1. 11/6/19
2. Rajkumar	2. 11.6

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[AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **DATA MINING BASED RISK ESTIMATION OF ROAD ACCIDENTS** carried out by **ANVITHA B G(1SG15IS023),CHAITRA V (1SG15IS039),HARSHITHA D (1SG15IS048) ,HARSHAVARDHAN NAGNATH KACHARE (1SG15IS047)** , bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Dr. H R RANGANATHA	Dr. H R RANGANATHA	Dr. K L SHIVABASAPPA
Professor &Head	Professor & Head	Principal

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sundarsanan. D	1. 14/6/19
2. Rajkumar	2.

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[AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **GARBAGE MONITORING USING IOT WITH LOCATION TRACKING AND ALERT** carried out by **AADYA JHA (1SG15IS001) AYUSHI RAJ (1SG15IS028)** bonafide students of 8th semester, Department of **Information Science & Engineering** at **Sapthagiri College of Engineering,** Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Ambika S	Dr. H.R. Ranganatha	Dr. K L Shivabasappa
Assistant Professor	Prof.& HOD	Principal
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Reviewer

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanam D	1. 11/6/19
2. Raj Kumar	2.

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **MOVIES RECOMMENDATION USING COLLABORATIVE FILTERING** carried out by **Ms. ANANYA S RAO (1SG15IS016), Ms. ANJANA S HEGDE (1SG15IS016), Ms. BHUMIKA R H (1SG15IS035) and Ms. MEGHA G (1SG15IS061)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering,** Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Gayathri R	Dr. H R Ranganatha	Dr. K L Shivabasappa
Assistant Professor	HOD, I.S.E., S.C.E.	S.C.E., Bengaluru.

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Sudarsana D	1. 12/6/19
2.	2. 12/6/19

Principal
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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **"DETECTING DoS ATTACK IN BOOK SHOPPING APPLICATION USING DATA MINING TECHNIQUE"** carried out by **Aishwarya Muralidhar (1SG15IS009), Ashawani Kumar (1SG15IS024), Chaitra S (1SG15IS037), Lucky Gupta (1SG15IS058)** bonafide students of 8th semester, Department of **Information Science & Engineering** at **Sapthagiri College of Engineering**, Bengaluru in **partial fulfillment** of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year **2018-19**. It is certified that all corrections/suggestions indicated for Internal Assessment **have been** incorporated in the Report deposited in the departmental library. The **project report** has been approved as it satisfies the academic requirements in respect of **Project work** prescribed for the said Degree.

Signature of the Guide	**Signature of HOD**	**Signature of Principal**
Prof. Sowmya Somanath	Dr. H R Ranganatha	Dr. K L Shivabasappa
Assistant professor,	**Professor and head,**	Principal, SCE
Dept. of ISE, SCE	**Dept.** of ISE, SCE	

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanan. D	1. 12/6/19
2. Rajkumar	2. 12/6/19

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SAPTHAGIRI
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **"Report Writing Bot Using Pattern Matching Algorithm And Substitution Methods."** carried out by **Abhishek M D (1SG15IS005), Abhishek S(1SG15IS006), Laxmish A A(1SG15IS056), Mahidhar Avadhani M R (1SG15IS059)** bonafide students of 8th semester, Department of **Information Science & Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Ravichandra M	Dr. H R Ranganatha	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanam D	1. 11/6/17
2. Rajkumar	2.

Principal
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[AFFILIATED TO VISVESWARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **"SMART CONTROL OF ELECTRICAL APPLIANCES USING IOT AND MOBILE APPLICATION"** carried out by **Abhishek D Hegde (1SG15IS004), Chitra S (1SG15IS041), Lahari Shekar B C (1SG15IS055), Lincoln Francis Fernandes (1SG15IS057)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering,** Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Praneetha. G.N	H R Ranga	10/6
Prof. Praneetha G N Assistant Professor **Signature of the Guide**	Dr. H R Ranganatha Professor and HOD **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

Reviewer

Name of the Reviewer	Signature of the Reviewer with date
1. Sudarsanam D	1. 12/6/19
2. Roy Pereira	2. 12/6/19

Principal
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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **Big Data Analytics : Predicting Academic Course Preference Using Hadoop Inspired Map Reduce.** carried out by **Kartik Kathuria (1SG15IS052), Gautham GS (1SG15IS044), Charan S (1SG14IS023)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. SUDARSANAN D	Dr. H R RANGANATHA	Dr. K L SHIVABASAPPA
Asst. Professor, ISE	HOD,ISE	Principal, SCE
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanan. D	1. 12/6/19
2. Ranjitkumar	2. 12/6/19

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[AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **DETECTION OF PHISHING WEBSITES USING MACHINE LEARNING** carried out by **NANDINI SRIDHAR(1SG15IS069), PRATHEEK G S (1SG15IS078), SEEMA N HUNKI (1SG15IS102), KATHYAYINI VJ (1SG15IS121),** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Ambika S Assistant Professor **Signature of the Guide**	Dr. H R Ranganatha Head of Department **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Sudarsan J	1. 13/5/19
2. Hamsa I A S	2. 13/6/19.

Principal
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[AFFILIATED TO VIVSVESWARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **Predicting Depression Using Social Media Posts** carried out by **MUKUL GAUR (1SG15IS066), PRANAV JAYAPRAKASH (1SG15IS077) , SAMEER A SHAH (1SG15IS098), SONU GUPTA (1SG15IS112)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

8/6/19	HR Ranga	10/6
Prof. Divyashree G	Dr. H R Ranganatha	Dr. K L Shivabasappa
Professor	Head Of Dept	Principal
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Sudarsanan D	1. 13/6/19
2. Hamsa A.S	2. 13/6/19

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SECURED CLOUD DATA PROCESSING SCHEME** carried out by **Mr. KUSHAL N K (1SG15IS067), Mr. PUNITH KUMAR M (1SG15IS082), Mr. RAKESH B J (1SG15IS089) and Mr. YATHINDRA S (1SG15IS125)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Kavyashree K	H R Ranga	10/6
Prof. Kavyashree K Assistant Professor	Dr. H R Ranganatha	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Sudarsan	1. 12/6/19
2. Hamsa. A.S	2. 13/6/19

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **PRIVACY PRESERVANCE AND INTRUSION AVOIDANCE OF MEDICAL DATASET IN THE CLOUD** carried out by **RAHUL DEV (1SG15IS086), SAKET KUMAR (1SG15IS097), SHANTESHWAR PRASAD SINGH (1SG15IS103) and SHUBHAM (1SG15IS107)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Dr. M S Patel	Dr. H R Ranganatha	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Reviewer

Name of the Reviewer	**Signature of the Reviewer with date**
1. Sudarsan D	1. 13/6/19
2. Hamsa. I. A. S	2. 13/6/19

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **FORECASTING PRICE FLUCTUATIONS OF BITCOIN USING NEURAL NETWORK** carried out by **NIKHITHA M S [1SG15IS072], PRAGATHI S NAYAK [1SG15IS076], SAMIKSHA S N [1SG15IS099], SHREYA S NADGIR [1SG15IS104]** bonafide student of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide Prof. Sowmya Somanath Assistant Professor	**Signature of the HOD** Dr. H R Ranganatha Professor & HOD	**Signature of the Principal** Dr. K L Shivabasappa Principal

External Viva

Name of the Examiners

1. ....
2. ....

Signature of the Examiners with date

1. .... 13/6/19
2. .... 13/6/19.

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **"VOICE ENABLED INTELLIGENT CASH FLOW FORECASTING AND PREDICTIVE ANALYSIS"** carried out by **SAHANA HEGDE (1SG15IS096), VAISHNAVI J (1SG15IS122)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Vineetha 08/06/19	H R Ranga	10/6
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Vineetha B	Dr. H R Ranganatha	Dr. K L Shivabasappa
Assistant Professor	Head of Department	Principal

External Viva

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsan D	1. 13/6/19
2. Hamsa A.S	2. 13/6/19

Principal
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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work **entitled FACE DETECTION AND RECOGNITION BASED ATTENDANCE USING TENSORFLOW carried** out by **AKASH ANAND(1SG15IS012), BHARATHI V MUGALI(1SG15IS033), GORA ADITYA(1SG15IS045), HINA ISRATH MAB(1SG15IS049)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Chaithra B M Assistant Professor **Signature of the Guide**	Dr. H.R. Ranganatha Professor and HOD **Signature of the HOD**	Dr. K. L. Shivabasappa Principal **Signature of the Principal**

Reviewer

Name of the Reviewer	Signature of the Reviewer with date
1. Sudarsanam	1. 12/6/19
2. Jagadeesan	2. 12/6/19

Principal
Sapthagiri College of Engineering
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[AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **TWITTER DATA ANALYSIS USING STREAMING API** carried out by **AISHWARYA.U(1SG15IS011), ANUSHA.G.HEGDE(1SG15IS022),BHAGYASHREE.G(1SG15IS031),MEGHANA. C (1SG15IS062)** , bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Dr. H R RANGANATHA	Dr. H R RANGANATHA	Dr. K L SHIVABASAPPA
Professor &Head	Professor & Head	Principal

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsan N	1. 13/6/19
2. Hamsa. H.S	2. 13/6/19

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **TWITTER DATA ANALYSIS USING STREAMING API** carried out by **AISHWARYA.U(1SG15IS011), ANUSHA.G.HEGDE(1SG15IS022),BHAGYASHREE.G(1SG15IS031),MEGHANA. C (1SG15IS062)** , bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

H R Ranganatha	H R Ranganatha	10/6
Signature of the Guide Dr. H R RANGANATHA Professor &Head	**Signature of the HOD** Dr. H R RANGANATHA Professor & Head	**Signature of the Principal** Dr. K L SHIVABASAPPA Principal

Examiner

Name of the Examiner	Signature of the Examiner with date
1. Sudha Sarma D	1. 13/6/19
2. Hamsa. H.S	2. 13/6/19

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Department of Information Science and Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Mini Project Work entitled "Enhanced use of Input Devices using Magic Glove" carried out by **Shubham Kumar Singh (1SG15IS108), Sundram Singh (1SG15IS116),** bonafide students of **Sapthagiri College Of Engineering,** in partial fulfillment for the award of Bachelor of Engineering in Information Science and Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (15CSP85) prescribed for the said degree.

10/6/19	HR Ranganatha	10/6
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Divyashree G	**Dr. H R Ranganatha**	**Dr. K L Shivabasappa**
Assistant Professor	**Professor & Head**	**Principal**

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1. Sudarsanam D	11/6/19
2. Rajkumar	11/6

Principal
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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SPATIOTEMPORAL ANALYSIS OF TWEETS** carried out by **HOLAMOGE NISHA VINOD (1SG15IS050), NISHA KUMARI (1SG15IS073), ROOPA M (1SG15IS092), SWETA PRIYA (1SG15IS118)** bonafide students of 8th semester, Department of **Information Science & Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

for 8/6/19	H R Ranganatha	12/6
Prof. Ravichandra M Assistant Professor **Signature of the Guide**	Dr. H R Ranganatha Professor & Head **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanam	1. 12/6/19
2. Ramakrishnan	2. Prabha

Principal
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[AFFILIATED TO VTU, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SPATIOTEMPORAL ANALYSIS OF TWEETS** carried out by **HOLAMOGE NISHA VINOD (1SG15IS050), NISHA KUMARI (1SG15IS073), ROOPA M (1SG15IS092), SWETA PRIYA (1SG15IS118)** bonafide students of 8th semester, Department of **Information Science & Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Ravichandra M Assistant Professor **Signature of the Guide**	Dr. H R Ranganatha Professor & Head **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanam	1. 12/6/19
2.	2.

Principal
Sapthagiri College of Engineering
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[AFFILIATED TO VTU,VTUSVESWARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **"URBAN SOUND CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK"** carried out by **Pallavi S (1SG15IS075) Radha G (1SG15IS083) Shubhashitha B R (1SG15IS111) Tanmayi M Hegde (1SG15IS119)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

8/6/19.	H R Ranga	
Prof. Chaithra B M	Dr. H R Ranganatha	Dr. K L Shivabasappa
Assistant Professor	Head of Department	Principal, SCE
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Sudarsanan D	1. 11/6/19
2. Gopikumar	2. 11.6

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **ELIMINATING PIRACY BY EMBEDDING SERIAL NUMBER** carried out by **Mr. PRIYESH SHRIVASTAVA (1SG13IS081), Ms. SAMRIDHI SONI (1SG15IS100), Mr. SHUBHAM SARVESH (1SG15IS110) and Mr. SUMIT KARAK (1SG15IS114)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Gayathri R	H R Ranganatha	2016
Prof. Gayathri R Assistant Professor **Signature of the Guide**	Dr. H R Ranganatha Head of Department **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. S Udaya Saravan	1. 13/6/19
2. Hamsa. A. S.	2. 13/6/19

Principal
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **DOCUMENT CLUSTERING USING PSO AND K-MEANS ALGORITHM** carried out by **SAHANA H J [1SG15IS095], DIVYA A[1SG16IS400], KEERTHANA P S[1SG16IS401], RANJITHA T V [1SG16IS403]** bonafide student of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said Degree.

Dr. H R RANGANATHA Professor & HOD **Signature of the Guide**	Dr. H R RANGANATHA Professor & HOD **Signature of the HOD**	Dr. K L SHIVABASAPPA Principle **Signature of the Principle**

External Viva

Name of the Examiners

1. ...
2. ...

Signature of the Examiners with date

1. ..... 12.1.19
2. .....

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **BUILDING A VERSION CONTROL SYSTEM IN HADOOP (HDFS)** carried out by **Mr. SANTHOSH S V (1SG15IS101), Mr. SHREYAS R (1SG15IS105), Mr. SHRIDHAR KESHAV HEGDE (1SG15IS106) and Mr. M MANIKANTAN (1SG16IS402)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Dr. M S Patel Professor **Signature of the Guide**	Dr. H R Ranganatha **Signature of the HOD**	Dr. K L Shivabasappa **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. ...Sudarsanan S....	1. ....12/6/19....
2. ....Ranjkumar....	2. ....12.6.19....

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **"AN APPROACH FOR BIGDATA SECURITY BASED ON HADOOP DISTRIBUTED FILESYSTEM "** carried out by **RAGHAVENDRA M R (1SG15IS084) , SUSHMA N (1SG151S117)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering,** Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Kavyashree K	H R Ranga	10/6
Prof. KavyaShree K Assistant Professor **Signature of the Guide**	Dr. H R Ranganatha **Signature of the HOD**	Dr. K L Shivabasappa **Signature of the Principal**

Examiner

Name of the Examiner	**Signature of the Examiner with date**
1. Shobharani	1. 13/6/19
2. Hamsa. A.S	2. 13/6/19

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **DEDUPLICATION OF ENCRYPTED BIG DATA IN CLOUD** carried out by **Ms. SHUBHADA D BADACHI (1SG13IS108), Ms. POOJA (1SG13IS077), Ms. M KAVYA (1SG12IS024) and Ms. RASHMI A (1SG13IS091)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ramya R	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Prof., I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E, Bengaluru

Dr. Aswatha Kumar M
Principal
Sapthagiri College of Engineering
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External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1. 28/6/17
2. Mallamma C.L	2. 28/6/17

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **PRIVACY PROTECTION IN SMARTPHONES USING CLOUD COMPUTING** carried out by **Ms. RASHMI KUMARI S. (1SG14IS074), Ms. RICHA RASHMI (1SG14IS076), and Ms. SADHANA PAWALE G(1SG15IS043)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Divyashree G. Assistant Professor **Signature of the Guide**	Dr. H.R. Ranganatha Prof. & HOD **Signature of the HOD**	Dr. Shivabasappa K. L. Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. A G Nagesha	1. 15/6
2. GAYATHRI R	2. GayathriR 15/6/18

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **RATING FORECAST BASED ON SOCIAL ATTITUDE FROM TEXTUAL ANALYSIS** carried out by **ASHWITH SHETTY K. (1SG14IS017) ,KARTHIK S. H.(1SG14IS035) ,NIKHIL B.(1SG14IS055),NIKHIL S. NAYAK(1SG14IS056)**. bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering,** Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

H R Ranga 25/5	H R Ranga	25/5/18
Dr. H R Ranganatha Head of the Dept. **Signature of the Guide**	Dr. H R Ranganatha Head of the Dept. **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Dept. Prerana Chaithra	1. 14/6/18
2. Prof. Pradhi Shevani. P.M	2. 14/6/18

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **A FRAMEWORK FOR IMPROVING SECURITY USING HOMOMORPHIC ENCRYPTION IN CLOUD COMPUTING** carried out by **Ms. PRIYA M. PAI (1SG14IS064), Ms. TANUSHREE K. C. (1SG14IS096) and Ms. VARSHA SHEKAR (1SG14IS100)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Veena V. Assistant Professor **Signature of the Guide**	Dr. H. R. Ranganatha **Signature of the HOD**	Dr. K. L. Shivabasappa **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. A G N Gayatha	1. 15/6
2. GAYATHRI R	2. GayathriR 15/6/18

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **EFFICIENT POINT-OF-INTEREST ROUTE SEARCH ON ROAD NETWORKS** carried out **by ABHAS SRIVASTAVA (1SG14IS001), ANKIT RAJ(1SG14IS008), ATISH KUMAR MISHRA(1SG14IS018), DEBASHIS SAHA(1SG14IS024)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfilment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

24/5/18	H R Ranga	11/6/18
Prof. Sowmya Somanath Assistant Professor **Signature of the Guide**	Dr. H R Ranganatha Professor and HOD **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

External Viva

Name of the Examiners	Signature of the Examiners with date
1. A. G. Nagesh	1. 15/6
2. GAYATHRI R	2. Gayathri R 15/6/18

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SECURE EVENT MANAGEMENT SYSTEM FOR SWIFT RESPONSE** carried out by **Mr. HEMANTH G. (1SG14IS031), Mr. KIRAN KUMAR N. (1SG14IS039), Mr. MD. ROUF TAHIR (1SG14IS051), Mr. NISCHAL BABU P. N. (1SG14IS058)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Gayathri R 25/5/18	H K Rout	25/5/18
Prof. Gayathri R. Assistant Professor **Signature of the Guide**	Dr. H.R. Ranganatha Professor and H.O.D. **Signature of the HOD**	Dr. Shivabasappa K. L. The Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Dr. Prasanna Chaithra	1.
2. Prof. Prathibhavani. M	2.

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **EFFECTIVE PREDICTION OF MISSING DATA ON APACHE SPARK OVER MULTIVARIABLE TIME SERIES** carried out by **Mr. ABHISHEK SINHA (1SG14IS002), Mr. KRISHNA PRASAD K N (1SG14IS033), Ms. POONAM KUMARI (1SG13IS080) and Mr. SAI KRISHNA S V R S (1SG13IS116)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Dr. H.R. Ranganatha Professor and HOD **Signature of the Guide**	Dr. H.R. Ranganatha Professor and HOD **Signature of the HOD**	Dr. Shivabassappa K.L Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Dept. Prerana Chaithra	1. 14/12/18
2. Prof. Preethi Gowrani R M	2. 14.12.18

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **EFFECTIVE PREDICTION OF MISSING DATA ON APACHE SPARK OVER MULTIVARIABLE TIME SERIES** carried out by **Mr. ABHISHEK SINHA (1SG14IS002), Mr. KRISHNA PRASAD K N (1SG14IS033), Ms. POONAM KUMARI (1SG13IS080) and Mr. SAI KRISHNA S V R S (1SG13IS116)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

H R Ranganatha	H R Ranganatha	
Dr. H.R. Ranganatha Professor and HOD **Signature of the Guide**	Dr. H.R. Ranganatha Professor and HOD **Signature of the HOD**	Dr. Shivabassappa K.L Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Dept. Prasana Chaithra	1. ..... 14/6/18 .....
2. Prof. Preethi Shekhar	2. ..... 14/6/18 .....

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[AFFILIATED TO VTU, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **MENTAL HEALTH RESEARCH DATA ANALYSIS USING PRIVACY PRESERVATION** carried out by **Ms. AMRIN KHAN (1SG14IS005), Ms. ANKITA UMAPATI HEGDE (1SG14IS010), Ms. ANUSHREE P. GALGALI (1SG14IS013) and Ms. BHOOMIKA M. J. (1SG14IS019)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

25/5/18	H R Rong	25/5/18
Prof. Sheetal Raj T. G.	Dr. H.R. Ranganatha	Dr. Shivabasappa K. L.
Assistant Professor	Professor and HOD	Principal
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. H R RANGANATH	1. H R Rong 13/06/18
2. Chayapathi A R	2. 13/06/18

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[AFFILIATED TO VTU, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **DESIGN AND IMPLEMENTATION OF SMART DOORWAY SECURITY AND BOTNET USING IOT** carried out by **Ms. KAVYA S. (1SG14IS037), Mr. NISHANTH M. (1SG14IS044), Mr. PIYUSH AROLIYA (1SG14IS059), and Ms. MONICA R. (1SG13IS055)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Vijay Kumar F G 12/6	H R Ranga	
Prof. Vijay Kumar F. G.	Dr. H.R. Ranganatha	Dr. K. L. Shivabasappa
Assistant Professor	Professor and HOD	Principal
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. H R RANGANATH	1. H R Ranga 13/6/18
2. Chayapathi A R	2. 13/6/18

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[AFFILIATED TO VIVSVESWARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **IOT BASED INTELLIGENT ANTI-THEFT TRACKING AND ACCIDENT DETECTION SYSTEM FOR AUTOMOBILES** carried out by **Ms. HARSHITHA B.S. (1SG13IS033), Ms. KRISHNAPRIYA K.A. (1SG13IS042), Ms. LAKSHMI S. (1SG13IS045) and Ms. PAVANA N. (1SG13IS075)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Veena V 25/5/18	H R Ranganatha	12/6
Prof. Veena V. Assistant Professor **Signature of the Guide**	Dr H.R.Ranganatha Professor and H.O.D. **Signature of the HOD**	Dr K.L.Shivabasappa Principal **Signature of the Principal**

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. A G Nagesha	1. 15/6
2. GAYATHRI R	2. Gayathri R

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **PUBLIC AUDITING FOR SHARED DATA WITH EFFICIENT USER REVOCATION IN THE CLOUD** carried out by **Ms.ARCHANA C. (1SG13IS011), Ms. CHHAVIANUPAM. (1SG13IS020), Ms. DEVIKA N. (1SG13IS024) and Ms. INDRANI R. (1SG13IS037)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

23/6/2017

Signature of the Guide
Prof. Sanjaykumar J.H.
Assistant Professor, I.S.E., S.C.E

Signature of the HOD
Prof. Prerana Chaithra
HOD, I.S.E., S.C.E

Dr. Aswatha Kumar. M
Principal
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Signature of the Principal
Dr. Aswatha Kumar.M.
S.C.E., Bengaluru.

External Viva

Name of the Examiners

1. Ms. Prerana Chaithra
2. KALA VENUGOPAL

Signature of the Examiners with date

1. .....
2. ..... 27/6/17

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **PRIVACY PRESERVING RANKED MULTI-KEYWORD SEARCH FOR MULTIPLE DATA OWNERS IN CLOUD COMPUTING** carried out by **Ms. AMULYA A.N. (1SG13IS010), Ms. KAVANA C. (1SG13IS040), Ms. MEGHANA MANDLI (1SG13IS053)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Sunitha K.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Assistant Professor,	HOD, I.S.E., S.C.E.	S.C.E., Bengaluru.
I.S.E.,S.C.E.		

Dr. Aswatha Kumar. M
Principal
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External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1. 28/6/17
2. Mr. Mallamma C.G.	2. 28.6.17

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **FRAMEWORK FOR DATA MODEL TO PERSONALIZED HEALTH SYSTEMS** carried out by **Ms.AKSHATHA (1SG13IS006), Ms. SWATHI D.N. (1SG13IS021), Ms.KAVYA S.D. (1SG13IS041) and Mr.YUGANDHAR M(1SG13IS056)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Malathi K P	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Associate professor,	HOD, I.S.E., S.C.E	S.C.E., Bengaluru.
I.S.E.,S.C.E		

Dr. Aswatha Kumar. M
Principal
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External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1. 27/6/17
2. KALA VENUGOPAL	2. 27/6/17

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **DEVELOPMENT OF IOT BASED SMART SECURITY AND MONITORING DEVICES FOR AGRICULTURE** carried out by **Ms. NISHA KESHRI (1SG13IS069), Ms. PRIYANKA M.S. (1SG13IS085), Ms. SATHYAPRIYA V.H. (1SG13IS095) and Ms. SHAMBHAVI SHUKLA (1SG13IS102)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide Prof. Prakruthi S.T. Assistant Professor, I.S.E., S.C.E	**Signature of the HOD** Prof. Prerana Chaithra HOD, I.S.E., S.C.E	**Signature of the Principal** Dr. Aswatha Kumar M. S.C.E., Bengaluru. Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of the Examiners | **Signature of the Examiners with date**

1. Prof. Prerana Chaithra ..... 1. .....
2. Mallamma Lig ..... 2. ..... 28/6/17 .....

Principal
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[AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **TMACS: A THRESHOLD MULTI AUTHORITY ACCESS CONTROL SYSTEM** carried out by **Mr. PRANEET SINGH (1SG13IS083), Ms. SHUBHAM (1SG13IS109), Mr. SYED AEZAZ AHMED (1SG13IS118) and Mr. VISHAL KUMAR (1SG13IS123)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Vijay Kumar F.G.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Prof., I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bengaluru.

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1. 18/6/17
2. Mallamma C.G	2. 18/6/17

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **EMOTION BASED MUSIC PLAYER** carried out by **Mr. DILIPKUMAR S. (1SG13IS026), Mr. KUMAR PRIYADARSHI (1SG13IS043), Mr. MANISH KUMAR (1SG13IS048) and Mr. MANISH KUMAR (1SG13IS049)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

23/6/17		
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ravichandra M.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Prof., I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E, Bengaluru.

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Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1. 23/6/17
2. KAIA VENUGOPAL	2. 27/6/17

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **GROUP MESSENGER ANDROID APPLICATION** carried out by **Mr. ABHISHEK (1SG13IS003), Mr. AMIT SINGH (1SG13IS009) and Mr. KUMAR VIKRAM (1SG13IS044)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Ravichandra M.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M
Asst. Prof., I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E, Bengaluru.

External Viva

Name of the Examiners	Signature of the Examiners with date
1. Prof. Prerana Chaithra	1.
2. KALA VENUGOPAL	2.

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **PROTECTION OF BIGDATA PRIVACY** carried out by **Mr. NILESH KUMAR SHARMA (1SG13IS066) Mr. SHALILANAND MISHRA (1SG13IS099) , and Mr. VIVEKANAND KUMAR (1SG13IS125)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Prakruthi S.T.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Prof., I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bengaluru.

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Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1.
2. Mahesha G	2. 21/6/17

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **LOCATION BASED ANDROID PROFILING SYSTEM** carried out by **Mr. ANUBHAV KUMAR GUPTA (1SG12IS007), Mr. AYUSH GUPTA (1SG12IS013), Mr. GAURAV CHATURVEDI (1SG12IS018) and Mr. SANKET SONU (1SG12IS043)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Vasanthalakshmi M.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bengaluru.

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Name of the Examiners	**Signature of the Examiners with date**
1. Hemalatha K.L	1. 11/6/16
2. Chaithra	2. 11/06/16

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **DETECTING MALICIOUS FACEBOOK APPLICATIONS** carried out by **Mr. BALA KUMAR S. (1SG12IS015), Mr. PRATEEK G. KULKARNI (1SG12IS034) Mr. SHARAN SUBHAS SAVALAGI (1SG12IS046) and Mr. JAWAHAR MANJU R. (1SG10IS023)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

18/5/16	18/5/16	Dr. Aswatha Kumar. M Principal, Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Malathi K. P.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Associate Professor	HOD, I.S.E., S.C.E	S.C.E, Bengaluru
Dept. of I.S.E., S.C.E		

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Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1.
2.	2.

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **FORMING OPINION'S VIA TRUSTED FRIEND: TIME EVOLUTION METHOD** carried out by **Ms. MADHURI B. (1SG12IS025), Ms. NEHA RAI (1SG12IS031), Ms. DEEPA R. (1SG13IS401) and Ms. MANASA T. M. (1SG13IS404)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16.It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Ramya R.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Prof., I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E, Bengaluru

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Name of the Examiners	Signature of the Examiners with date
1. Hemalatha K L	1. 11/6/16
2. Chaithra	2. 11/06/16

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **BIG DATA ANALYSIS OF WEIGHTED ITEMSETS USING MAPREDUCE** carried out by **Mr. ABHAY P DIXIT. (1SG12IS002),Mr. ANSHU KAMAL. (1SG12IS006), Mr. THEJASWY PRASAD K. (1SG12IS058) and Mr. VINAY KUMAR K. (1SG12IS063)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Gayathri R 18/5/16	18/5/16	
Signature of the Guide Prof. Gayathri R Assistant Professor, I.S.E., S.C.E	**Signature of the HOD** Prof. Prerana Chaithra HOD, I.S.E., S.C.E	**Signature of the Principal** Dr. Aswatha Kumar M. S.C.E., Bengaluru

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Name of the Examiners	Signature of the Examiners with date
1. Prerana Chaithra	1.
2.	2.

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **HEURISTIC SEARCH BASED TRAVEL ROUTE PLANNING** carried out by **Ms. JYOTI SRIVASTAVA (1SG12IS019), Mr. PABITRA HALDAR (1SG12IS033), Mr. RAHUL KUMAR SHARAF (1SG12IS037), Ms. SHALINI GUPTA (1SG12IS044)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Anitha 20/5/16

Signature of the Guide
Prof. Anitha K.
Asst. Prof. Dept. of I.S.E., S.C.E.

20/5/16

Signature of the HOD
Prof. Prerana Chaithra
Dept of I.S.E., S.C.E.

Signature of the Principal
Dr. Aswatha Kumar M
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Name of the Examiners

1. Prof. Prerana Chaithra
2. ...

Signature of Examiners with date

1. ...
2. ...

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **IMPLEMENTATION OF SOCIAL NETWORK WITH PREVENTION OF SYBIL ATTACK** carried out by **Mr. RAHUL KUMAR (1SG11IS036), Mr. AMIT KUMAR SHARMA (1SG12IS005), Ms. K.H. SWATHI (1SG12IS020) and Ms. VARNASHREE R. (1SG12IS060)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Chaithra 20/05/16	20/5/16	
Signature of the Guide Prof. Chaithra Associate Professor, I.S.E., S.C.E	**Signature of the HOD** Prof. Prerana Chaithra HOD, I.S.E., S.C.E	**Signature of the Principal** Dr. Aswatha Kumar M. S.C.E., Bengaluru.

Dr. Aswatha Kumar. M
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Name of the Examiners	**Signature of the Examiners with date**
1. Hemalatha K.L.	1. 11/6/16
2. Chaithra	2. 11/06/16

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SMS BASED FILE SHARING AND REMOTE ACCESS OF SMARTPHONES** carried out by **Ms. JYOTHI P. (1SG10IS024), Ms. PREETHI G.A. (1SG11IS035), Ms. VARSHA S. (1SG11IS054)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Ravichandra M.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Prof, I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E, Bengaluru

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Name of the Examiners	**Signature of the Examiners with date**
1. Hemalatha K L	1. 11/6/16
2. Chaithra	2. 11/06/16

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **PUBLISH/SUBSCRIBE COMMUNICATION FOR URBAN INTERNET OF THINGS** carried out by **Ms. BINDUSHREE R. (1SG12IS016) , Ms. NAMRATHA NAGESH (1SG12IS030) and Mr. THREERTHA PRASAD C. R. (1SG12IS410)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering,** Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Vijay Kumar F.G.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Assistant Professor,	HOD, I.S.E., S.C.E	S.C.E, Bengaluru.
I.S.E., S.C.E		

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Name of the Examiners	**Signature of the Examiners with date**
1. Hemalatha. K.L	1. 11/6/16
2. Chaithra	2. 11/06/16

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **AN EFFICIENT AND ADAPTIVE FILE REPLICATION AND QUERYING IN P2P FILE SHARING SYSTEM** carried out by **Ms. RANI SINGH (1SG12IS040), Ms. SHIVANGI (1SG12IS048), Ms. VAISHALI CHAUHAN (1SG12IS059)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

19/5/16	19/5/16	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering Hesaraghatta Main Road, Bengaluru-560 057
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Prakruthi S.T.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst Professor, I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bengaluru

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Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1.
2.	2.

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **A LSS for Detecting Malicious Packet Drop Attack in WSN** carried out by **Mr. ARAVIND Y. (1SG12IS010), Mr. SHARAD KUMAR (1SG12IS045) and Mr. YASHWANTH M.N. (1SG13IS408) Mr. PRAMOD M.(1SG11IS032)** bonafide students of 8th semester, Department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Anitha K.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Professor, I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bengaluru

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Name of the Examiners	Signature of the Examiners with date
1. Hemalatha K L	1. 11/6/16
2. Chaitra	2. 11/06/16

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **LIGHTWEIGHT APPROACH FOR DATA SKEW MITIGATION IN MAPREDUCE** carried out by **Ms. PRATHIBHA D.K. (1SG11IS033), Ms. SPANDANA D.H. (1SG11IS047), Ms. SYEDA RABIYA ALAM (1SG11IS052) and Ms. YOGA E. (1SG11IS059)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide Prof. Jyothi C.S. Assistant professor I.S.E., S.C.E	**Signature of the HOD** Prof. Prerana Chaithra HOD, I.S.E., S.C.E	**Signature of the Principal** Dr. Aswatha Kumar M. S.C.E., Bangalore.

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Hemalatha K.L	1. 10/6/15
2. Chaithra	2. 10/6/15

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[AFFILIATED TO VIVSVESWARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **Cluster Based Certificate Revocation With Vindication Capability For Mobile Adhoc Networks** carried out by **Mr. Avinash Shukla (1SG11IS008), Mr. Sharan (1SG11IS044), Mr.Vinay Hegde (1SG11IS056), Mr. Vinay Kumar S.R. (1SG11IS057),** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi, during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Prerana Chaithra	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
HOD, I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E, Bangalore.

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Name of the Examiners	Signature of the Examiners with date
1.	1.
2. Prerana Chaithra	2.

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **APPLICATION FOR RESCUING VICTIMS DURING EMERGENCY** carried out by **Mr. DYLINE DOMINIC MENEZES (1SG11IS015), Ms.HARSHITHA NAIK V. (1SG11IS017), Ms. KEERTHISHREE B. (1SG11IS021) and Ms. SANJANA S. (1SG11IS040)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering,** Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Gayathri R		
Signature of the Guide Prof. Gayathri R . Assistant Professor. I.S.E., S.C.E	**Signature of the HOD** Prof. Prerana Chaithra. HOD, I.S.E., S.C.E	**Signature of the Principal** Dr. Aswatha Kumar M. S.C.E, Bangalore. Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore -560 057.

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Hemalatha K.L	1. 10/6/15
2. Chaithra	2. 10/6/15

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **COLLABORATIVE TRADING USING CLUSTERING TECHNIQUE ON BIG DATA** carried out by **Mr. ROSHAN KUMAR MODI. (1SG11IS039), Mr. SANJEET KUMAR MEHTA. (1SG11IS041), Mr. SURYA PARKASH. (1SG11IS050) and Mr. SAMIR JARIKA. (1SG10IS044)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Jyothi C.S	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Dept. of I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bangalore.

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Name of the Examiners	**Signature of the Examiners with date**
1. Hemalatha K.L	1. 10/6/15
2. Chaithra	2. 10/6/15

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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **A TRANSPARENT BILLING SYSTEM FOR CLOUD COMPUTING ENVIRONMENT** carried out by **Ms. KALAIVANI N. (1SG12IS403), Ms. MALINI R. (1SG12IS404), and Ms. YASHASWINI V.G. (1SG12IS411)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Chaithra	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Associate prof,	HOD, I.S.E., S.C.E	S.C.E., Bangalore.
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Name of the Examiners | **Signature of the Examiners with date**

1. C. IC. Mahabala ..... 1. ..... 9/6/15
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SAPTHAGIRI
College of Engineering

Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **ANDROID BASED TRAFFIC INFORMATION SHARING USING SENSORS AND MICROCONTROLLER** carried out by **Ms. NEHA KUMARI (1SG11IS029), Ms. PALLAVI KUMARI (1SG11IS031), Mr. PRATYUSH PRATYANKAR (1SG11IS034) and Ms. SHABDITA (1SG11IS042)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Ramya R.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SMARTPHONE APPLICATION FOR OFF-LINE USE IN CASE OF DISASTER** carried out by **Mr. ABHILASH K.V. (1SG11IS002), Mr. MAHESH A.S. (1SG11IS024), Mr.PANCHAKSHARAIAH H.S. (1SG12IS406), Mr. PARAYYA M. VASTRAD (1SG12IS407)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Anitha K.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Asst. Professor,I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bangalore.

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1. C. K. Nagaraj	1. 9/6/15
2. Prerana Chaithra	2. 9/6/15

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **IMPROVED SECURITY MECHANISM OF IMAGE IN VIDEO USING ENHANCED STEGANOGRAPHY** carried out by **Ms. ANUSHA H.B. (1SG11IS005), Ms. ARPITHA R. (1SG11IS007), Ms. DIVYASHREE A.G. (1SG11IS014) and Ms. TEJASWINI V. (1SG11IS053)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Chaithra	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Associate Professor,	H.O.D., I.S.E., S.C.E.	S.C.E., Bangalore
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1. C.K. MANJUNATHA	1. ..... 9/6/15
2. Prerana Chaithra	2. ..... 9/6/15

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SMART PARKING AND TRACKING FOR CARS IN PARKING AREAS** carried out by **Ms. HARSHITHA RAVI (1SG11IS018), Ms. SHARVANI R. KULKARNI (1SG11IS045), Ms. SURABHI S. S. (1SG11IS049) and Ms. SUSHMITHA S. WALVEKAR (1SG11IS051)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Malathi K. P.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Assoc. Prof. I.S.E., S.C.E.	H.O.D., I.S.E., S.C.E.	S.C.E., Bangalore.

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Name of the Examiners	Signature of the Examiners with date
1. Hemalatha K.L	1. 10/6/15
2. Chaithra	2.

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **IMPROVED SECURITY MECHANISM OF IMAGE IN VIDEO USING ENHANCED STEGANOGRAPHY** carried out by **Ms. ANUSHA H.B. (1SG11IS005), Ms. ARPITHA R. (1SG11IS007), Ms. DIVYASHREE A.G. (1SG11IS014) and Ms. TEJASWINI V. (1SG11IS053)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bangalore in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2014-15. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Chaithra	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Associate Professor,	H.O.D., I.S.E., S.C.E.	S.C.E., Bangalore
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Name of the Examiners	**Signature of the Examiners with date**
1. C.K. MANJUNATHA	1. 9/6/15
2. Prerana Chaithra	2. 9/6/15

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **TREATMENT TIME PREDICTION AND QUEUEING RECOMMENDATION IN HOSPITAL USING BIG DATA** carried out by **Ms. KUMARI SUPRIYA (1SG11IS023), Mr. AKSHAY SINGH (1SG13IS007), Mr. AVINASH KUMAR JHA (1SG13IS016) and Ms. PUJA KUMARI (1SG13IS088)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Prerana Chaithra	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
HOD, I.S.E., S.C.E	HOD, I.S.E., S.C.E	S.C.E., Bengaluru

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Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1.
2. KALA VENUGOPAL	2. 27/6/17

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Department of Information Science & Engineering

CERTIFICATE

Certified that the project work entitled **SMART ATTENDANCE AND EVENT MANAGEMENT SYSTEM** carried out by **Mr. PRAJWAL SHETTY(1SG13IS083), Mr. SAGAR S. (1SG13IS093) , Mr. SHASHIDHAR G.J. (1SG13IS103) and Mr. SINDHOOR HEGDE (1SG13IS111)** bonafide students of 8th semester, department of **Information Science & Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Information Science & Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Prof. Vijay Kumar F.G.	Prof. Prerana Chaithra	Dr. Aswatha Kumar M.
Assistant Professor	HOD, I.S.E., S.C.E	S.C.E., Bengaluru.
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Name of the Examiners	**Signature of the Examiners with date**
1. Prof. Prerana Chaithra	1. ..... 28/6/17 .....
2. Mallamma C.L.	2. ..... 28.6.17 .....

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2018-19

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DEPARTMENT OF MECHANICAL ENGINEERING

SAPTHAGIRI
College of Engineering

CERTIFICATE

Certified that the Project work entitled **"FABRICATION OF SOLAR/ELECTRICALLY DRIVEN VENDOR'S CART"** carried out by **KUMAR P G (1SG15ME046), SHASHANK H PRASAD (1SG15ME091), SYED ABEED (1SG15ME099), SRIDHAR A S (1SG16ME440)** of 8th Semester Mechanical department in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2018-2019. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The Project report has been approved as it satisfies the academic requirements in prescribed for the said degree.

08/6/19

Signature of the Guide

Dr. P MAHADEVASWAMY

Professor and Head

08/6/19

Signature of the HOD

Dr. P MAHADEVASWAMY

Professor and Head

Signature of the Principal

Dr. K.L SHIVABASAPPA

External Viva:

	Name of the Examiners	Signature with Date
1	Dr. Mahadevaswamy. P	11/6/19
2	Dr. Kiran T. S	11/6/19

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DEPARTMENT OF MECHANICAL ENGINEERING
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CERTIFICATE

Certified that the project work entitled **"Fabrication of Cattle Food Making Machine By Using Fruit and Vegetable Waste"** carried out by **Ravishankar G (1SG15ME078), Sadananda Laxminarayan Hegde (1SG15ME081), Shubham Majhi (1SG15ME092), Keshavaprashanth S (1SG16ME411)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

10/06/19	10/6/19	10/6
Mr. Ramesh N G	Dr. P Mahadevaswamy	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Reviewer

Name of the Reviewer	**Signature with date**
1. Dr. Mahadevaswamy P	11/6/19
2. Dr Kiran T S	11/6/19

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the Project work entitled **"DESIGN&FABRICATION OF PNEUMATIC HACKSAW CUTTING MACHINE"** carried out by **AKSHAY S R(1SG16ME400), HEMANTH KUMAR T(1SG16ME408), MADHU D B(1SG16ME413), RAJESHA K H(1SG16ME431)** of 8th Semester Mechanical department in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2018-2019. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The seminar report has been approved as it satisfies the academic requirements in prescribed for the said degree.

Signature of the Guide

Mr. NATARAJ H N

Assistant Professor

10/6/19

Signature of the HOD

Dr. P MAHADEVASWAMY

Professor and HOD

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Signature of the Principal

Dr. K.L SHIVABASAPPA

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	Name of the Examiners	Signature with Date
1	Dr. Mahadevaswamy P	4/6/19
2	Dr. Kiran T. S	11/6/19

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DEPARTMENT OF MECHANICAL ENGINEERING

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2018-2019

CERTIFICATE

Certified that the project work entitled **"FABRICATION OF COCONUT SCRAPING MACHINE"** carried out by **DARSHAN V V (1SG16ME405), HEMANTH L (1SG16ME409), PUNITH A N (1SG16ME429), SANDEEP R P (1SG16ME430), bonafide** students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bangalore in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Mr. Madhu Kumar Y C	Dr. P Mahadevaswamy	Dr K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Reviewer

Name of the Reviewer	**Signature with date**
1. Dr. Mahadevaswamy	10/6/19
2. Dr Kiran	

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College of Engineering

CERTIFICATE

Certified that the project work entitled **" Fabrication of Spot Welding Machine."** carried out by **Jai krishna J (1SG16ME410), Mahesh G K (1SG16ME415), Manjunath B G (1SG16ME418), Manoj kumar J (1SG16ME420)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

7/6/19	07/6/19	
Mr.Arun kumar R	**Dr. P Mahadevaswamy**	**Dr. K L Shivabasappa**
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Examiner
Name of the Reviewer — **Signature with date**

1. Dr. Mahadeva Swamy P 11/6/19
2. Dr. Kiran T. S 11/6/19

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

DEPARTMENT OF MECHANICAL ENGINEERING
SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Hesaragatta, Main Road, Chikkasandara, Bengaluru-560057

CERTIFICATE

Certified that the project work entitled **"Design & Fabrication of Automated portable hammering machine."** carried out by **Rakshith K L (1SG16ME433), Mustafa P K (1SG16ME422), Manjunath A nilugal (1SG16ME417), Rajath G moodithaya (1SG15ME074)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. Mahesh.S	Dr. P Mahadevaswamy	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Examiner

Name of the Examiner	**Signature with date**
1. Dr. Mahadevaswamy	
2. Dr. Kiran T. S	

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled **"Fabrication of Floor Cleaning Machine"** carried out by **AMITH R (1SG15ME010), CHETHAN I P (1SG15ME020), DHANRAJ M (1SG15ME025), DILIP M (1SG15ME028)**, bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering, Bengaluru** in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering of the Visvesvaraya Technological University**, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

10/6/19		10/6
Ms. PRATHIMA C N	**Dr. P MAHADEVASWAMY**	**Dr. K L SHIVABASAPPA**
Signature of the Guide	Signature of the HOD	Signature of the Principal

Reviewer

Name of the Reviewer	Signature with date
1. Dr. Mahadevaswamy P	12/6/19
2. Dr. Kiran T. S	12/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-57

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(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled **"Design and Fabrication of Remote Controlled Solar Lawn Mower"** carried out by **AKSHAY S (1SG15ME008), DHANANJAYA V (1SG15ME024), GALVIN IGNATIUS MENEZES (1SG15ME033),** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

7/6/19	7/6/19	
Mr. ANILKUMAR P R	**Dr. P MAHADEVASWAMY**	**Dr. K L SHIVABASAPPA**
Signature of the Guide	Signature of the HOD	Signature of the Principal

Reviewer

Name of the Reviewer	Signature with date
1. Dr. Mahadevaswamy	12/6/19
2. Dr. Kiran T.S	12/6/19

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

DEPARTMENT OF MECHANICAL ENGINEERING
SAPTHAGIRI COLLEGE OF ENGINEERING
14 5, Hesaraghatta, Main Road, Chikkasandara, Bengaluru-560057

CERTIFICATE

Certified that the project work entitled **"Fabrication of Agro-Based Solar Vehicle."** carried out by **Chandruchud S (1SG14ME025), Dineshkumar K (1SG15ME030), Divya C N (1SG15ME031), John Patrick G (1SG15ME043)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Prof. Hemanth Kumar H R	Dr. P Mahadevaswamy	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

External Examiner

Name	**Signature with date**
1. Dr. Mahadeva Swamy P	12/6/19
2. Dr. Kiran T S	

Principal
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14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

Certified that the Project Work entitled "**EVALUATION OF BIOFUEL BLENDED WITH PREPARED ETHANOL, N-BUTANOL AND PETROL BASED AND POLLUTION LEVEL TESTS ON AN SI ENGINE**" carried out by **AJEYA V (1SG15ME006), ANIRUDH R K (1SG15ME012), DAYANANDA M (1SG15ME021) and MADAN KUMAR L (1SG15ME052)** bonafide students of **Sapthagiri College of Engineering**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15ME85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. P Raghuthama Rao Associate Professor	Dr.P Mahadevaswamy Professor and Head	Dr. K L Shivabasappa Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. Mahadevaswamy P	1. 12/6/19
2. Dr. Kiran T S	2. 12/6/19

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
College of Engineering

DEPARTMENT OF MECHANICAL ENGINEERING
SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Hesaragatta Main Road, Chikkasandara, Bengaluru-560057

CERTIFICATE

Certified that the project work entitled **"Design and Fabrication of Hydro wheel pump"** carried out by **Darshan M E (1SG16ME404), Halaswamy C M (1SG16ME407), Sharath C G (1SG16ME437), Yashavanth A S (1SG16ME444)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the academic year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. Pramod S V	Dr. P Mahadevaswamy	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

10/06/2019 10/6/19 10/6

External viva:-

Name of the Examiners	**Signature with date**
1. Dr. Mahadevaswamy P	10/6
2. Dr Kiran T S	10/6/19

Principal
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(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING

SAPTHAGIRI
College of Engineering

CERTIFICATE

Certified that the project work entitled **"Design and Fabrication of Switchable Steering Mechanism"** carried out by **NAGARJUN S TAKKALAKI (1SG15ME058), NAGARJUN M (1SG15ME059), NISCHITH A G (1SG15ME060), RAHUL V (1SG15ME73)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

12/6/19	14/6/19	12/6
Mr. SIVA MURALI MOHAN REDDY A	**Dr. P MAHADEVASWAMY**	**Dr. K L SHIVABASAPPA**
Signature of the Guide	Signature of the HOD	Signature of the Principal

Reviewer

Name of the Reviewer	Signature with date
1. Dr. K. M. Keneth Reddy	14/6/19
2. Dr. R. G. Duhpande	14/6/19

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

Certificate

Certified that the Project Work entitled "FABRICATION OF AUTOMATED SOLAR POWERED WHEEL CHAIR" carried out by ARJUN S (1SG15ME013), BHARATH V (1SG15ME017), MITHUN RAGHUNANDAN (1SG15ME055) and RAHUL N DIXIT (1SG15ME072) bonafide students of Sapthagiri College of Engineering, in partial fulfilment for the award of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of Project Work Phase II (15ME85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. Basavaraj Ganiger Asst. Professor	Dr. P Mahadevaswamy Professor and Head	Dr. K L Shivabasappa Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr. K. M. Kenchikkad by	14/6/19
2. Dr. R. G. Deshpande	14/6/19

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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Department of Mechanical Engineering

SAPTHAGIRI
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CERTIFICATE

Certified that the seminar work entitled *"DESIGN AND FABRICATION OF SAND FILTER AND SEPERATOR"* carried out by **AFTAB AHMED MADAR WALA (1SG15ME004), ASHISH SHARMA (1SG15ME014), GYANENDRA KUMAR GUPTA (1SG15ME034), KISHAN SHARMA (1SG15ME044)** of 8th Semester Mechanical department in partial fulfilment for the award of degree in Bachelor of Engineering at *Sapthagiri College of Engineering* affiliated to Visvesvaraya Technological University, Belagavi for the academic year 2018-2019. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The seminar report has been approved as it satisfies the academic requirements in prescribed for the said degree.

13/6/19
Signature of the Guide
Prof. JAGANNATH G.R.
Associate Professor

Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

14/6
Signature of the Principal
Dr. K. L. SHIVABASAPPA

External Viva

Name of the Examiner	Signature with Date
1. DY. K. M. Kenchi Reddy	14/6/19
2. Dr. R. G. Deshpande	14/6/19

Principal
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Bangalore-560 057

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(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled **"DESIGN AND FABRICATION OF GARDENING EDGE TRIMMER"** carried out by **NAGARAJ V BHAT (1SG16ME423), NIVEDITHA SHREE N (1SG16ME424), SHRAVANI S (1SG16ME438), VIJAY M R (1SG16ME442)** of 8th semester **Mechanical Department** in partial fulfillment for the award of degree in **Bachelor of Engineering** at Sapthagiri College of Engineering affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2018-19. It is certified that all corrections suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in prescribed for the said degree.

Signature of the Guide

Mr. CHETAN B P

Assistant Professor

11/6/19

Signature of the HOD

Dr. P MAHADEVASWAMY

Professor and HOD

11/06

Signature of the Principal

Dr. K L SHIVABASAPPA

External Viva

Name of the Examiners	Signature with Date
Dr MH Annaiah SCE B'lore	15/06/19
Dr. K. M. Keerthi Reddy	Dr Keerthi Reddy 15/6/19

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

DEPARTMENT OF MECHANICAL ENGINEERING
SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Hesaragatta, Main Road, Chikkasandara, Bengaluru-560057

CERTIFICATE

Certified that the project work entitled **"POWER GENERATION USING PNEUMATIC MECHANISM AT SPEED BUMPER."** carried out by **Ayan Guha Roy (1SG15ME015), Himanshu (1SG15ME038), Kumar Rohan (1SG15ME047), Md. Rehan Nasim (1SG15ME054)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College ofEngineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Dr. R.G. Deshpande.	Dr. P Mahadevaswamy	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Reviewer

Name of the Reviewer	**Signature with date**
1. Eswaraiah K.S.	13/6
2. Dr. R.G. Deshpande	13/6/19

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

DEPARTMENT OF MECHANICAL ENGINEERING
SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Hesaragatta, Main Road, Chikkasandara, Bengaluru-560057

CERTIFICATE

Certified that the project work entitled **"Design and fabrication of Hybrid road cleaning machine."** carried out by **Ajith S P (1SG15ME007), Anil Kumar C (1SG15ME011), Dharshan M J (1SG15ME026), Likith P S (1SG15ME050)** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. Basavaraj Ganiger	Dr. P Mahadevaswamy	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Reviewer

Name of the Reviewer	**Signature with date**
1. Gurudatta K S	13/6
2. Dr. R. G. Deshpande	13/6/19

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

Certificate

Certified that the Project Work entitled "DESIGN AND FABRICATION OF ADJUSTABLE PESTICIDE SPRAYER" carried out by **DEEPU H S (1SG15ME022), DEVARAJ HIREMATH (1SG15ME023), JANARDHAN K N (1SG15ME042) and DHANUSH N (1SG15ME057)** bonafide students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi** during the academic year 2018-2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the Department Library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work Phase II (15ME85)** prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
11/6/19	11/6/19	11/06
Prof. Prathima C N **Asst. Professor**	**Dr. P Mahadevaswamy** **Professor and Head**	**Dr. K L Shivabasappa** **Principal**

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Examiner's S.	13/6
2. Dr. R. G. Deshpande	13/6/19

Principal
Sapthagiri College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Hesaragatta, Main Road, Chikkasandara, Bengaluru-560057

2018-2019

CERTIFICATE

Certified that the project work entitled "**MODIFICATION OF HONDA ACTIVA TO RUN AS HYBRID VEHICLE.**" carried out by **SAI SOMASEKHAR K (1SG15ME048), RAMESH P (1SG15ME076), SRIDHAR N S (1SG15ME094), SUKRUTH K (1SG15ME096),** bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bangalore in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. A M Mahesha	Dr. P Mahadevaswamy	Dr. K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

Reviewer

Name of the Examiner	**Signature with date**
1. Dr. K. M. Keshavi Reddy	14/6/19
2. Dr. R. G. Deshpande	14/6/19

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

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DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled **"DESIGN AND FABRICATION OF MULTINUT REMOVAL TOOL."** carried out by **Pawan C (1SG15ME064), Pradeep B N(1SG15ME066), Praveen S (1SG15ME068),Ravi K C (1SG15ME077)**bonafide students of 8th semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering**, Bangalore in partial fulfilment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

08/06/2019	08/6/19	
Prof. Pramod S V	Dr.P Mahadevaswamy	Dr.K L Shivabasappa
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**

External Viva

Name of the Examiners	**Signature**
1. Dr. K. M. Keerthi Reddy	14/6/19
2. Dr. R. G. Pushpanda	14/6/19

Principal
Sapthagiri College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING
SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Hesaraghatta, Main Road, Chikkasandra, Bengaluru-560057

CERTIFICATE

This is to Certify that the project work entitled **"Remote operated equipment for cleaning up debris in lakes"** carried out by **Praveen N S (1SG16ME428), Rakesh Kumar (1SG16ME432), Rudresh P (1SG15ME109) Shreeram A (1SG16ME439),** bonafide students of final semester, Department of **Mechanical Engineering** at **Sapthagiri College of Engineering,** Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2018-19. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Prof. P Raghuthama Rao Associate Professor	Dr. P Mahadevaswamy Professor and HOD	Dr. K L Shivabasappa Principal

EXTERNAL EXAMINATION:

Name of the Examiners	Signature with Date
1. Dr MH Annaiah	1. 15/6/19
2. Dr. K. M. Keerthi Reddy	2. 15/6/19

Principal
Sapthagiri College of Engineering
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2017-18

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

Certified that the project work entitled **"FABRICATION OF VACUUM BASED SOLAR STILL FOR WATER DESALINATION"** carried out by **Mathew O M (1SG14ME065), Maruthi H (1SG14ME064), Sachin K S (1SG14ME095)** and **Sagar S (1SG14ME096)** of 8th Semester **Mechanical Department** in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2017-2018. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in prescribed for the said degree.

Ramkumar M 13/6/18

Signature of the Guide
Prof. Ramkumar M
Assistant Professor

Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

H.O.D. Dept. of Mech. Engg.
S.C.E., Bangalore-560 057

Signature of the Principal
Dr. K.L. SHIVABASAPPA
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

External Viva

Name of the Examiners	Signature with Date
1. T. Venkate gowda	14/06/18
2. Sandeep K Chavan, TO CE Blore	14/6/18

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the students **RAKESH L (USN 1SG14ME088),** VENKATESH **PRASAD S (USN 1SG14ME119), VISHWESHWAR HEGDE (USN 1SG14ME124), YATHISH V J (USN 1SG14ME125)** are bona fide students of **Sapthagiri College of Engineering** have satisfactorily carried out a PROJECT WORK on **"REDUCING MANUAL WORK IN LIFTING PIN AND LINK"**, in partial fulfillment of the requirements as prescribed by the **V.T.U,** for the award of **Bachelor of Engineering in Mechanical Engineering ofVisvesvaraya Technological University, Belagavi** during the academic year **2017-18.**

Signature of the Guide	Signature of HOD	Signature of Principal
Prof. Ramesh N G	**Dr. P.Mahadevaswamy**	**Dr. K. L. Shivabasappa**
Assistant Professor	Prof. & Head	Principal
Dept. of ME	H.O.D. Dept. of Mech. Engg S.C.E., Bangalore-560 057 Dept. of ME	SCE

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

Name of the Examiners	Signature with Date
1) Dr. Mahadevaswamy P	13/6/18
2) Raghavendra. N	13/06/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled **"FREE VIBRATION BEHAVIOUR OF ALKALI TREATED LONG KENAF FIBRE REINFORCED EPOXY COMPOSITES"** carried out by **ADARSH C K, DHANUSHKUMAR M R, DILIP G, GANESH C J** bearing USN: **1SG14ME006, 1SG14ME035, 1SG14ME037, 1SG14ME040** bonafide students of **"SAPTHAGIRI COLLEGE OF ENGINEERING"** in partial fulfilment of the requirements for the award of **Bachelor of Engineering in Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2017-2018**.It is certified that all corrections /suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the said Degree.

Signature of guide	Signature of HOD	Signature of principal
T Venkate Gowda	**Dr. P Mahadeva swamy**	**Dr. Shivabasappa K L**

H.O.D. Dept. of Mech. Engg. S.C.E., Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1... Dr. Mahadeva swamy P	12/6/18
2... S. ROOPA RAO	12/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the Project work entitled **"ROUGH TERRAIN VEHICLE USING ROCKER BOGIE MECHANISM"** carried out by **GOPINATH E (1SG14ME042), KARTHIK R (1SG14ME047), KINNERA TARUN KUMAR (1SG14ME049), M PRAVEEN KASHYAP (1SG14ME052)** of 8th Semester **Mechanical Engineering** in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements respect of project work prescribed for the Bachelor of Engineering degree.

11/6/18

Signature of the Guide
JAGANNATH G R
Associate Professor

11/6/18

Signature of the HOD
Dr. P. MAHADEVA SWAMY
Professor and HOD
H.O.D. Dept. of Mech. Engg.
S.C.E., Bangalore-560 057

11/6/18

Signature of the Principal
Dr. K.L. SHIVAPRASAPPA
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560057

External Viva

Name of the Examiners	Signature with Date
1. Dr. Mahadevaswamy P	12/6/18
2. SRGOVINDAN A	12/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hessaraghatta Main Road, Bengaluru – 560057

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering

CERTIFICATE

Certified that the project work entitled "**BLANKING AND PEIRCING MACHINE**" carried out by **ABHISHEK G (1SG15ME400), CHETAN K (1SG14ME027), HARISH H N (1SG15ME410), KULDEEP KAMATH (1SG14ME050)** of 8th semester **Mechanical Department** of **Sapthagiri College of Engineering** in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visveswaraya Technological University**, Belgavi for the academic year 2017-18. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering degree.

13/6/18

Signature of the Guide

G. R. JAGANNATH

13/6/18

Signature of the HOD

Dr. P. MAHADEVASWAMY

Signature of the principal

Dr. K.L.SHIVABASAPPA

External Viva

Name of the Examiners	Signature with Date
1.	18/6/18
2.	18.6.18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

Sapthagiri College of Engineering

Bengaluru, Karnataka-560057

SAPTHAGIRI
College of Engineering
Creating Tomorrow

Certificate

This is to certify that **Mr. Aditya V Kulkarni (1SG14ME007), Chethan V (1SG14ME028), Clement Ryan Menezes (1SG14ME029), Syed Aftab Hussaini (1SG15ME424)** has successfully completed their project on **"Multi-purpose Agricultural Robot - Agribot"**, under the guidance of Prof. Rajalakshmi S towards the partial fulfilment of requirements for the award of degree of **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi,** during the year 2017-18. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering degree.

Signature of Guide	Signature of Principal	Signature of HOD
Rajalakshmi S	Dr. K. L. Shivabasappa Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road	Dr. P. Mahadevaswamy H.O.D. Dept. of Mech. Engg S.C.E., Bangalore-560 057

External Viva-Voce

Name of the Examiner	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled "**EFFECT OF CHILLS ON MECHANICAL PROPERTIES OF ALUMINUM METAL MATRIX COMPOSITE**". Carried out by Praveen.H.T (1SG14ME081), Praveen.S (1SG14ME082), UdayKumar.R (1SG14ME115), Varun.B.V (1SG14ME117) bonafide students of 8th Semester Mechanical Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr.Arun Kumar R	Dr. Mahadevaswamy.P	Dr.Shivabasappa K L.

External Viva

Name of the examiners

Signature with date

1. T. Venkategowda 14/06/18
2. Sandeep K Chavan 19/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the student **RAVISHA M R** bearing the **USN [1SG14ME090], MOHAMMED WASEEM[1SG14ME071], DILIP.N[1SG13ME036], HARSHITH M S [1SG13ME043]**,student of **Sapthagiri College of Engineering** has satisfactorily carried out a Poject Work on " **DESIGN AND FABRICATION OF FOUR WAY HACKSAW MACHINE**", in partial fulfillment of the requirements as prescribed by the **VTU**, for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year **2017-18.**

Signature of guide	Signature of Head Of Dept.	Signature of principal
NATARAJ H N	**Dr.P. Mahadevaswamy**	**Dr.K L Shivabasappa**
Assistant profesor	H.O.D. Dept. of ME	Principal SCE
Dept. of ME		

Name of the Examiners	Signature With Date
1) Bavaankumar. M R	15/06/18
2) T. Venkategowda	15/06/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrows

CERTIFICATE

Certified that the seminar work entitled "***ANTI-THEFT WHEEL LOCKING SYSTEM***" carried out by **ABHINAV PRATAP (1SG14ME002) , IZHARUL HUSSAIN (1SG14ME067) , MUKUL KUMAR (1SG14ME072), PRINCE (1SG14ME083)** of 8th Semester **Mechanical department** in partial fulfilment for the award of degree in **Bachelor of Engineering** at *Sapthagiri College of Engineering* affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2014-2018. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The seminar report has been approved as it satisfies the academic requirements in prescribed for the said degree.

15/06/2018

Signature of the Guide
Prof. PRAMOD S.V
Assistant Professor

15/6/18

Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

Signature of the Principal
Dr. K.L SHIVABASAPPA

External Viva

Name of the Examiners	Signature with Date
1. Braveen Kumar M.R. BIT B'lore-04	15/06/18
2. T. Venkategowda	15/06/18

Principal
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the seminar work entitled "***DESIGN AND FABRICATION OF REMOTE CONTROLLED SOLAR LAWN MOWER***" carried out by **PRASAD HEGDE(1SG14ME078), SATISH.B.GUMMANI(1SG14ME101), VARSHA D(1SG14ME116),VASAVI SURESH (1SG14ME118)** of 8th Semester **Mechanical department** in partial fulfilment for the award of degree in **Bachelor of Engineering** at *Sapthagiri College of Engineering* affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2017-2018. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The seminar report has been approved as it satisfies the academic requirements in prescribed for the said degree.

P.R. 11/06/2018

Signature of the Guide
Prof. ANIL KUMAR P R
Assistant Professor

11/6/18

Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

11/6/18

Signature of the Principal
Dr. K.L SHIVABASAPPA

External Viva

Name of the Examiners	Signature with Date
1. Dr. Mahadevaswamy	13/6/18
2. Raghavendra N	13/06/18

Principal
Sapthagiri College of Engineering
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[AFFILIATED TO VTUSVESWARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI]

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **INVESTIGATIONS ON PERFORMANCE AND POLLUTION LEVELS ON N-BUTANOL BLENDED PETROL FUELED ENGINE (10% TO 50% BLENDING)** carried out by **CHETAN R(1SG14ME026), C R ABHIRAM(1SG14ME021), KALOLA NEIL PRAVINBHAI(1SG14ME044) and KARAN N(1SG14ME046)**, bonafide students of 8th semester, department of **Mechanilcal Engineering** carried out at our college **Sapthagiri College of Engineering**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

11.6.2018	11/6/18	11/6/18
Prof Raghuthama Rao Associate Professor **Signature of the Guide**	Dr. P Mahadevaswamy Head of the Dept. **Signature of the HOD**	Dr. K L Shivabasappa Principal **Signature of the Principal**

H.O.D. Dept. of Mech. Engg
B.C.E., Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

External Viva

Name of the Examiners	**Signature of the Examiners with date**
1. Dr. Mahadevaswamy P	1. 12/6/18
2. S.R.GOVINDASWAMY	2. 12/6/18

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled "**Smart helmet for rider's safety**".Carried out by Mr.Shivunagouda (1SG14ME105), Mr.Shrikanth Reddy (1SG14ME107), Mr.Srinivas M N (1SG14ME109), Mr.Syed Azharuddin(1SG14ME113) bonafide students of 8th Semester Mechanical Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belgavi during the year 2017-18.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Tilak S R	**Dr. Mahadevaswamy.P**	**Dr.Shivabasappa K L.**
	H.O.D. Dept. of Mech. Engg S.C.E., Bangalore-560 057	**Principal**
		Sapthagiri College of Engineering
		Chikkasandra, Hesaraghatta Road
		Bangalore- 560 057

External Viva

Name of the examiners
Signature with date

1. T. Venkategowda 14/06/18
2. Sandeep K Charan 14/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Mechanical Engineering

CERTIFICATE

Certified that the Project work entitled **"MULTIPURPOSE WOOD WORKING MACHINE"** carried out by **CHETHAN KUMAR K. (1SG15ME405), CHETHAN R.H. (1SG15ME406), PRAMOD S. (1SG15ME416), RAVIKUMAR C.J. (1SG15ME417),** of 8th Semester **Mechanical Engineering** in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements respect of project work prescribed for the Bachelor of Engineering degree.

11/06/2018

Signature of the Guide
Dr. TULSIDAS D.
Associate Professor

11/6/18

Signature of the HOD
Dr. P. MAHADEVA SWAMY
Professor and HOD

Dept. of Mech. Engg.
S.C.E., Bangalore-560 057

11/6/18

Signature of the Principal
Dr. K.L. SHIVARASAPPA
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560 057

External Viva

Name of the Examiners	Signature with Date
1. Dr. Mahadevaswamy P	12/6/18
2. S Ravindran	12/6/18

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

Certified that the Project work entitled **"INFLUENCE OF SILICA, BORON CARBIDE AND CHILL INCORPORATION IN MECHANICAL AND WEAR PROPERTIES OF ALUMINIUM ALLOY 6061"** carried out by **CHANDAN YADAV B R (1SG14ME023), DILEEP C (1SG14ME036), M MOHAMMAD SHOAIB (1SG14ME053), SANJAY K (1SG15ME419)** of 8th Semester **Mechanical Engineering** in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2017-2018. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The Project report has been approved as it satisfies the academic requirements respect of project work prescribed for the Bachelor of Engineering degree.

14/6/18

Signature of the Guide
Mr. MADHUKUMAR Y C
Assistant Professor

15/6/18

Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

Signature of the Principal
Dr. K.L.SHIVABASAPPA

External Viva

Name of the Examiners	Signature with Date
1. A M. Mahesh	15.6.18
2. Prof M J Shivalingaiah	08/6/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the Project entitled **"DESIGN AND FABRICATION OF MODULAR AERIAL PLATFORM(MAP)"** is a bonafide work carried out by

SUMANTH K	**1SG15ME422**
NANDAKUMARA H G	**1SG15ME415**
DIVAKAR V Y	**1SG15ME408**
SUNIL KUMAR YADAV S	**1SG15ME423**

Of 8th Semester **Mechanical department** in partial fulfillment for the award of degree in **Bachelor of Engineering** at *Sapthagiri College of Engineering* affiliated to Visvesvaraya Technological University, Belagavi for the academic year 2017-2018. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The seminar report has been approved as it satisfies the academic requirements in prescribed for the said degree.

Prathima C.N.

Signature of the Guide
PRATHIMA C N
Assistant Professor

15/6/18

Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

Signature of the Principal
Dr. K.L SHIVABASAPPA

External Viva

Name of the Examiners	Signature with Date
1. Praveen Kumar. MR	15/06/18
2. BIT B'lu - 04 T. Venkatagowda	15/06/18.

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14 5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057

Department of Mechanical Engineering

SAPTHAGIRI
College of Engineering

Certificate

Certified that the Project Work entitled "**Characterisation of Sugarcane Bagasse Reinforced Polyester Composite**" carried out by **SIDDHARTH VIKRAM SINGH (1SG15ME421), SHOEB ANWAR (1SG14ME068), BIRAJ DHIBAR (1SG13ME025), ABHINEET SINGH (1SG13ME002)**, bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of **Project Work (10ME85)** prescribed for the said degree.

mahesh.s 13/06/18	13/6/18	
Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. MAHESH S	**Dr. P MAHADEVASWAMY**	**Dr. SHIVABASAPPA K L**
Assistant Professor	**Professor & Head**	**Principal**

EXTERNAL VIVA

Name of the Examiners	**Signature with Date**
1. Praveen Kumar MR, BIT Blr-04	15/06/18
2. T. Venkate gowda	15/06/18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the seminar work entitled **"MANUAL RICE TRANSPLANTER"** carried out by **ABISHEK P (1SG14ME005), ARUN K V (1SG14ME014), BANUPRAKASH N (1SG14ME017), C. VINOD KUMAR (1SG14ME022)** of 8th Semester **Mechanical department** in partial fulfilment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering** affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2017-2018. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The seminar report has been approved as it satisfies the academic requirements in prescribed for the said degree.

11/6/18

Signature of the Guide
ULLAS.C.S
Assistant Professor

11/6/18

Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

HOD Dept. of Mech. Engg
S.C.E., Bangalore-560 057

11/6/18

Signature of the Principal
Dr. K.L SHIVABASAPPA

External Viva

Name of the Examiners	Signature with Date
1. Dr. P. Mahadevaswamy	12/6/18
2. S.R.SRINIVASAN	12/6/18

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

BENGALURU-560057

(Affiliated to Visvesvaraya Technological University, Belagavi, Karnataka)

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that the students **NIRANJAN GOWDA DS** bearing the **USN 1SG14ME074,VISHAL R** bearing the **USN 1SG14ME123, ARJUN GOWDA TS** bearing the **USN 1SG15ME401, SANJAY P** bearing the **USN 1SG15ME420** is bona fide student of **Sapthagiri College of Engineering** has satisfactorily carried out a project work on **"CANOPY TRIM JIG FOR OUTER STRIPS"**, in partial fulfillment of the requirements as prescribed by the **V.T.U,** for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year **2017-18.**The project report has been approved as it satisfies the academic requirment in requirment of project work prescribed for the said Degree.

Signature of the Guide	Signature of HOD	Signature Of Principal
TILAK S R	**Dr. P. MAHADEVASWAMY**	**Dr.K. L. SHIVABASAPPA**
	H.O.D Dept. of Mech. Engg S.C.E., Bangalore-560 057	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore- 560 057

Name of The Examiners

Signature with Date

1) Dr. Mahadevaswamy. P

2) Raghavendra. N

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

DEPARTMENT OF MECHANICAL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tomorrow

CERTIFICATE

This is to certify that the students **HOYSALA M GOWDA**bearing the **USN 1SG14ME043,SANJAY S GOWDA**bearing the **USN 1SG14ME098,** isbona fide student of **Sapthagiri College of Engineering**hassatisfactorilycarried out a PROJECT WORK on **"LOCTITE IMMERSION FIXTURE"**, in partial fulfillment of the requirements as prescribed by the **V.T.U,** for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi**during the academic year **2017-18.**

12.6.18 12/6/18

Signature of Guide	signature of HOD	Signature Of Principal
Prof. Raghuthama Rao	**Dr.P. Mahadevaswamy**	**Dr.K L Shivabasappa**
	H.O.D. Dept. of Mech. Engg S.C.E., Bangalore-560 057	Principal Sapthagiri College of Engineering Chikkasandra, Hesaraghatta Road Bangalore-560 057

Name of the Examiners	Signature with Date
1) Dr. Mahadevaswamy P	13/6/18
2)	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5,Chikkasandra, Hesaraghatta Main Road, Bangaluru– 560057

Department of Mechanical Engineering

Certificate

Certified that the project work entitled **"90 DEGREE STEERING MECHANISM FOR ELECTRIC POWERED VEHICLE"** carried out by **Mr. ABHISHEK RAJ (1SG14ME004), Mr. DEEPAK KUMAR (1SG14ME033), Mr. GAURAV KUMAR (1SG14ME041) and Mr. BIPUL KUMAR (1SG14ME020)** bonafide students of 8th Semester Mechanical Engineering in partial fulfillment for the award of **Bachelor of Engineering** in **Sapthagiri College of Engineering** of the **Visvesvaraya Technological University**, Belgavi during the year 2017-18. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Mr. A. M. Mahesha
Associate Professor
(Guide)

13/06/18
Mr. T. Venkate Gowda
Assistant Professor
(Project Coordinator)

13/6/18
Dr. P. Mahadevaswamy
Professor & HOD

Dr. K. L Shivabasappa
Principal

External Viva

Name of the examiners	Signature with date
1. A.M. Mahesha	
2.	13/6 13.6.18

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Hesaragatta, Main Road, Chikkasandar, Bengaluru-560057

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project on topic **"FABRICATION OF SOLAR POWERED CART WITH FOUR WHEEL STEERING MECHANISM"** has been successfully presented at Sapthagiri College Of Engineering, by **MATLUB RAHMAN (1SG14ME066), RAKESH ROSHAN (1SG14ME087), RAVI KANT (1SG14ME089), and NAVEEN KUMAR SINGH (1SG14ME126)**, in partial fulfilment of the requirements for the VIII Semester degree of Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi during academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of project work for the said degree.

Signature Of Guide	Signature Of HOD	Signature Of Principal
Mr. MAHESH S	**Dr. P MAHADEVASWAMY**	**Dr. K L SHIVABASAPPA**
Assistant Professor	Head Of The Department	Principal

EXTERNAL VIVA

Name of examiners	Signature & Date
1. Praveen Kumar M.R. BIT	15/06/18
2. T. Venkategowda B'lore-04	15/06/18

Principal
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SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that **DHANUSH L(1SG13ME032), HARSHITH GOWDA M B (1SG13ME042), MANJUNATH K (1SG13ME060) and GURUDATH H (1SG14ME407)** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled **"Mechanical properties of alkali treated sisal fibre reinforced biodegradable composites"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Siddesh 24/6/17
Signature of the Guide
(Siddesh Naik V)
Assistant Professor

26/6
Signature of the HOD
(Dr.Manjunath S.H)
Professor and Head

Signature of the principal
(Dr.Aswatha kumar.M)
Dr. Aswatha Kumar. M
Principal
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External viva

Name of the Examiner

1. Dr. A.S. Ravindhran
2. Dr. Girish. K.B

Signature of the examiner with date

A.S. Ravindhran 27.6.17

27/6/17

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CERTIFICATE

Certified that **MAYUR HITESH PANCHAMIA (1SG11ME035), NISHANTH L S (1SG12ME037), JITEN S (1SG13ME047)** bona fide students of **Sapthagiri College of Engineering have** satisfactorily completed the project work entitled **"ELECTRIC RESISTANCE CRUCIBLE FURNACE"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Dr Girish KB	Dr.Manjunath S.H	Dr.Aswatha Kumar.M
Prof. Dept. of M.E., S.C.E .	Dept.of M.E., S.C.E .	S.C.E., Bengaluru

Dr. Aswatha Kumar. M
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Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ravindhran	27.6.17
2. Dr. Girish K.B	27/6/17

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Department of Mechanical Engineering

Certificate

Certified that the project work entitled **"SELECTION OF MECHANISM, DESIGN & FABRICATION OF TRASH COMPACTOR"** carried out by **Ankit Kumar (1SG13ME016), Kumar Vaibhav (1SG13ME053), Anvesh Shukla (1SG13ME019), Asad Ahmad (1SG13ME021)** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Nataraju H. N	**Dr. Manjunath S H**	**Dr. Aswatha Kumar M**
Asst. Professor	Prof. & Head Mechanical	Principal SCE

Name of the Examiners	**Signature with date**
1... Dr. A. S. Ravindra	28.6.17
2... Dr. G. M. B. K. B	28/6/17

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CERTIFICATE

Certified that **ABU BAKKAR SIDDIQ A S (1SG13ME005), AKSHAY L K KUMBLE (1SG13ME008), GANESH M (1SG13ME039) and KOMAL RAM C (1SG13ME051)** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled **"VALUE STREAM MAPPING AND DESIGN"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

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Signature of the Guide & HOD

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Name of the Examiner

1. Dr. A.S Ravindra
2. Dr. Ginesh. K.B.

Signature of the examiner with date

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28/6/17

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CERTIFICATE

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Signature of the Guide

ANIL KUMAR.P.R

Assistant Professor

Signature of the HOD

Dr.MANJUNATH S.H

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Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ravindra	28-6-17.
2. Dr. Girish K.B	28/6/17

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Certified that **BELKUNI AKASH [1SG13ME023], JEDSUN [1SG13ME046], ARVIND MANDAL [1SG13ME020]** and **AMAR KUMAR [1SG13ME012]** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"SOLAR POWERED MANUALLY ADJUSTABLE BACKPACK TYPE AGRO SPRAYER"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Signature of the Guide	Signature of the HOD	Signature of the principal
[Madhukumar y c]	[Dr. Manjunath S.H]	[Dr. Aswatha kumar .M]
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Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ramachandra	28-6-17
2. Dr. Ganesh K.B.	28/6/17

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Certified that **MEGHA GANGADHAR HEGDE (1SG13ME062), SHAKUNTHALA I. C. (1SG14ME418),** are bonafied students of **Sapthagiri College of Engineering** have satisfactorily completed the project work entitled **"Design of Fixture for Gear Cover Component Machining on VMC",** in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Signature of the Guide	Signature of the HOD	Signature of the Principal
(Mr. Anil Kumar P R)	(Dr. Manjunath S.H)	(Dr. Aswatha Kumar. M)
Assistant Professor	Professor and Head H.O.D. Dept. of Mech. Engg S.C.E., Bangalore-560 057	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

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Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ravindra	27.6.17
2. Dr. Ganesh K.B.	27/6/17

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Signature of the Guide

(Jagannath. G. R)

Associate Professor

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Signature of the HOD

(Dr.Manjunath S.H)

Professor and Head

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Signature of theprincipal

(Dr.Aswathakumar.M)

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Name of the Examiner

1. Dr. A-S. Ravindhran
2. Dr. Ganesh. K.B.

Signature of the examiner with date

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Signature of the Guide

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Associate Professor

Signature of the HOD

(Dr.Manjunath S.H)

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Signature of the principal

(Dr.Aswathakumar.M)

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Name of the Examiner

1. Dr. A.S. Ravindhran
2. Dr. Ganesh K.B.

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For Signature of the Guide & HOD

(Dr.Manjunath S.H)

Professor and Head
H.O.D. Dept. of Mech. Engg
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Signature of the principal

(Dr. Aswatha kumar.M)

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Name of the Examiner

1. Dr A.S. Ravindhran
2. Dr. Girish.K.B

Signature of the examiner with date

28.6.17

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CERTIFICATE

Certified that **G.S SATISH (1SG13ME038), KISHORE.H (1SG13ME050) MANJUNATHA.M (1SG13ME057)** and **GURU PRASAD M.G (1SG13ME129)** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"Design and Fabrication of Automatic Cradle Swinging Machine"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Ram Kumar M.
Signature of the Guide
(Ram kumar.M)
Assistant Professor

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Signature of the HOD
(Dr.Manjunath S.H)
Professor and Head
H.O.D. Dept. of Mech. Engg
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Signature of the principal
(Dr. Aswatha kumar.M)
Dr. Aswatha Kumar. M
Principal
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Bangalore-560 057

External viva

Name of the Examiner

1. Dr. A.S. Ravindhra
2. Dr. Girish.K.B

Signature of the examiner with date

28.6.17

28/6/17

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Certified that **AKSHAY.M.P (1SG13ME009), ANILKUMAR.N (1SG13ME014), ANUP POTDAR (1SG13ME018) and DARSHAN.S.B (1SG13ME029)**, are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"Fabrication of semi-automated arc welding machine"**. in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Ram Kumar M
Signature of the Guide

(Mr. Ramkumar M)

Assistant Professor

Signature of the HOD

(Dr.Manjunath S.H)

Professor and Head of department
H.O.D. Dept. of Mech. Engg
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Signature of the Principal

Dr. Aswatha Kumar. M
(Dr.Aswatha Kumar.M)
Principal
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External viva

Name of the Examiner

1. Dr. A.S. Ravindra
2. Dr. Girish K.B.

Signature of the examiner with date

S. Ravindra 28.6.17

25/6/17

Principal
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CERTIFICATE

Certified that **ARJUN S R [1SG14ME401], BHARATH KUMARA C [1SG14ME402], MADHU S [1SG13ME059]** and **NICKSON VARGHESE [1SG14ME411]** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"FABRICATION OF COMPACT MULTIPOINT HACKSAW MACHINE"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Signature of the Guide	Signature of the HOD	Signature of the Principal
[PRAMOD SV]	[Dr. Manjunath S.H]	[Dr. Aswatha Kumar M]
Assistant Professor	Professor and Head	Principal

Date: 24/06/2017 — 24/6/17

Sapthagiri College of Engineering
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External viva

Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ramachandra	27.6.17
2. Dr. Girish K.B.	27/6/17

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CERTIFICATE

Certified that **BHARATH.L (1SG13ME024), DIGANTH.G.S (1SG13ME035), GIRISH V GOWDA (1SG13ME040) and KUSHAL.K (1SG13ME054)** are bonafide students of **Sapthagiri College of Engineering** have satisfactorily completed the project work entitled as **"FABRICATION AND EXPERIMENTAL INVESTIGATION OF MECHANICAL PROPERTIES OF GRAPHENE/SILICA EPOXY NANOCOMPOSITES"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Signature of the Guide	Signature of the HOD	Signature of the principal
ANIL KUMAR.P.R	**Dr.MANJUNATH S.H**	**Dr.ASWATHA KUMAR.M**
Assistant Professor	Professor and Head	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057
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External viva

Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ravindhar	28.6.17
2. Dr. Girish.K.B	28/6/17

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CERTIFICATE

Certified that **ARJUN S R [1SG14ME401], BHARATH KUMARA C [1SG14ME402], MADHU S [1SG13ME059]** and **NICKSON VARGHESE [1SG14ME411]** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"FABRICATION OF COMPACT MULTIPOINT HACKSAW MACHINE"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Signature of the Guide	Signature of the HOD	Signature of the Principal
24/06/2017	For 24/6	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057
[PRAMOD SV]	[Dr. Manjunath S.H]	[Dr. Aswatha Kumar. M]
Assistant Professor	Professor and Head	

External viva

Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ravindra	27.6.17
2. Dr. Girish K.B.	27/6/17

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Certified that **MOHIT KUMAR** (1SG13ME066), **NANDAN KUMAR YADAV**(1SG13ME072), **ROHIT KUMAR SINGH**(1SG13ME096), **SUDIP KUMAR SAHA**(1SG13ME112) are bonafide student of **Sapthagiri college of engineering, Bangalore** have satisfactorily completed the project work entitled **"DESIGN AND FABRICATION OF AUTOMATIC PNEUMATIC RAMMING AND HAMMERING MACHINE WITH ACCIDENT SAFETY"** in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering of Visvesvaraya Technological University, Belagavi** during the academic year 2016-2017.

Signature of Guide	Signature of H.O.D	Signature of Principal
VENKATARAJESH C.S	**Dr. MANJUNATH S H**	**Dr. ASWATHA KUMAR**
Assistant Professor	Professor and Head	Principal
Dept. of ME	Dept. of ME	SCE, Bangalore

External Viva

Name of the Examiners	Signature with date
1. Dr. A.S. Ravindra	28.6.17
2. Dr. G.N.Nagesh K.B.	28/6/17

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Signature of Guide	Signature of H.O.D	Signature of Principal
VENKATARAJESH C.S	**Dr. MANJUNATH S H**	**Dr. ASWATHA KUMAR**
Assistant Professor	Professor and Head	Principal
Dept. of ME	Dept. of ME	SCE, Bangalore

External Viva

Name of the Examiners	Signature with date
1. Dr. A.S. Ravindra	28.6.17
2. Dr. Girish K B	28/6/17

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Certified that **T.N. LIKHITH RAO (1SG13ME116), MOHAMMED TANVEER (1SG14ME410)** and **SUDARSHAN.G (1SG14ME420)** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"Fabrication of solar still water purifier"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Ram Kumar M
Signature of the Guide

(Ram kumar.M)

Assistant Professor

For Signature of the HOD 24/6

(Dr.Manjunath S.H)

Professor and Head
H.O.D. Dept. of Mech. Engg
S.C.E., Bangalore-560 057

Signature of the Principal

(Dr. Aswatha kumar.M)

Dr. Aswatha Kumar. M
Principal
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External viva

Name of the Examiner	Signature of the examiner with date
1. Dr. Girish. K.B.	27/6/17
2. Dr. A.S. Ravindhran	S. Ravindhran 27.6.17

Principal
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SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that **AKSHAY J (1SG13ME010), CHIRANTH S G (1SG13ME028), GURUNAG K K (1SG13ME048) and VINOD KUMAR M (1SG13ME127)**are bonafide students of **Sapthagiri College of Engineering** have satisfactorily completed the project work entitled **"Design and Fabrication of Stair Climber"**, in partial fulfillment for the Award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-2017.**

27/6/17

Signature of the Guide
(Ullas C S)
Assistant Professor

Signature of the HOD
(Dr. Manjunath S H)
Professor and Head
H.O.D. Dept. of Mech. Engg.
S.C.E., Bangalore-560 057

Signature of the Principal
(Dr. Aswatha Kumar M)
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiner	Signature of the Examiner with date
1. Dr. A.S. Ravindra	28.6.17
2. Dr. Girish K.B.	28/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road

Bangalore-560057

CERTIFICATE

Certified that **BELKUNI AKASH [1SG13ME023], JEDSUN [1SG13ME046], ARVIND MANDAL [1SG13ME020]** and **AMAR KUMAR [1SG13ME012]** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"SOLAR POWERED MANUALLY ADJUSTABLE BACKPACK TYPE AGRO SPRAYER"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

26/6/17

Signature of the Guide

[Madhukumar y c]

Assistant Professor

26/6

for Signature of the HOD

[Dr. Manjunath S.H]

Professor and Head

Signature of the principal

[Dr. Aswatha kumar .M]

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External viva

Name of the Examiner

Signature of the examiner with date

1. Dr. A.S. Ravindra — 28-6-17
2. Dr. Girish K.B — 28/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road

Bangalore-560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that **G.VISHWAS (1SG14ME405), MITHILESHKUMAR.R.NAIK (1SG13ME063), KUSHAL.M (1SG13ME055), LOHITH.N (1SG13ME132)** bona fide students of **Sapthagiri College of Engineering** have satisfactorily completed the project work entitled **"AUTOMATIC COOLING SYSTEM FOR LATHE"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

S. Rajalakshmi

Signature of the Guide

Rajalakshmi.S

Asst.Prof. Dept. of M.E., S.C.E.

23/6

Signature of the HOD

Dr.Manjunath S.H

Dept.of M.E., S.C.E.

H.O.D. Dept. of Mech. Engg
S.C.E., Bangalore-560 057

Signature of the Principal

Dr Aswath Kumar M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
S.C.E, Bangalore-560 057

External Viva

Name of the Examiner

1. Dr. A.S. Ravindra
2. Dr. Ginish K.B.

Signature of the examiner with date

A.S.Ravindra 27.6.17

27/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road

Bengaluru-560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that **AKSHAY.M.P (1SG13ME009), ANILKUMAR.N (1SG13ME014), ANUP POTDAR (1SG13ME018) and DARSHAN.S.B (1SG13ME029)**, are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"Fabrication of semi-automated arc welding machine"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Ram Kumar M.
Signature of the Guide

(Mr. Ramkumar M)

Assistant Professor

24/6
Signature of the HOD

(Dr.Manjunath S.H)

Professor and Head of department
H.O.D. Dept. of Mech. Engg
S.C.E., Bangalore-560 057

Signature of the Principal

(Dr.Aswathakumar.M)

Principal

Dr. Aswathakumar. M
Principal
Sapthagiri College of Engineering
Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External viva

Name of the Examiner

1. Dr. A.S. Ravindhran
2. Dr. Girish K.B.

Signature of the examiner with date

J. Ravindhran 28.6.17

28/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road

Bangalore-560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that **G.S SATISH (1SG13ME038), KISHORE.H (1SG13ME050) MANJUNATHA.M (1SG13ME057)** and **GURU PRASAD M.G (1SG13ME129)** are bonafide students of **Sapthagiri College of Engineering** has satisfactorily completed the project work entitled as **"Design and Fabrication of Automatic Cradle Swinging Machine"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Ram Kumar M

Signature of the Guide

(Ram kumar.M)

Assistant Professor

Signature of the HOD

(Dr.Manjunath S.H)

Professor and Head
H.O.D. Dept. of Mech. Engg
S.C.E., Bangalore-560 057

Signature of the principal

(Dr. Aswatha kumar.M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External viva

Name of the Examiner	Signature of the examiner with date
1. Dr. A.S. Ramachandra	28.6.17.
2. Dr. Girish K.B	28/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Mechanical Engineering

Certificate

Certified that the project work entitled **"SELECTION OF MECHANISM, DESIGN & FABRICATION OF TRASH COMPACTOR"** carried out by **Ankit Kumar (1SG13ME016), Kumar Vaibhav (1SG13ME053), Anvesh Shukla (1SG13ME019), Asad Ahmad (1SG13ME021)** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year **2016-17**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said degree.

Signature of the Guide	**Signature of the HOD**	**Signature of the Principal**
Mr. Nataraju H. N	**Dr. Manjunath S H**	**Dr. Aswatha Kumar M**
Asst. Professor	Prof. & Head Mechanical	Principal SCE

Name of the Examiners	**Signature with date**
1. Dr. A.S. Ravindra	28.6.17
2. Dr. Girish K.B	28/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road,

Bengaluru-560057

CERTIFICATE

Certified that **MEGHA GANGADHAR HEGDE (1SG13ME062), SHAKUNTHALA L. C. (1SG14ME418)**, are bonafied students of **Sapthagiri College of Engineering** have satisfactorily completed the project work entitled **"Design of Fixture for Gear Cover Component Machining on VMC"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the year **2016-17.**

Signature of the Guide	Signature of the HOD	Signature of the Principal
(Mr. Anil Kumar P R)	(Dr. Manjunath S H)	(Dr. Aswatha Kumar M)
Assistant Professor	Professor and Head H.O.D Dept. of Mech. Engg S.C.E., Bangalore 560 057	Dr Aswatha Kumar M Principal Sapthagiri College of Engineering No. 14/5 Chikkasandra Hesaraghatta Main Road Bangalore 560 057

External viva

Name of the Examiner	Signature of the examiner with date
1 Dr P S Shivakumar	
2 Dr Gangadharaiah K.M.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road

Bangalore-560057

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that **SUMIT KUMAR SINHA (1SG13ME115), MANJUNATH K (1SG14ME409), VENKATESH KUMAR G A (1SG14ME421)** bonafide students of **Sapthagiri College of Engineering have** satisfactorily completed the project work entitled **"HARDNESS CHARACTERIZATION OF A356.1 Al ALLOY METAL MATRIX COMPOSITE REINFORCED WITH SiC"**, in partial fulfilment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of Visvesvaraya **Technological University, Belagavi** for the year **2016-17.**

26/6

Signature of the Guide

(Dr. Girish KB)

Professor

26/6

Signature of the HOD

(Dr. Manjunath S.H)

Professor and Head

Signature of the Principal

(Dr. Aswatha Kumar.M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiner

1. Dr. A.S. Ravindra
2. Dr Girish K.B.

Signature of the examiner with date

27/6/17

27/6/17

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

2015-16

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **"CHARACTERIZATION AND PROPERTY EVOLUTION OF A356.1 ALUMINIUM ALLOY REINFORCED WITH MAGNESIUM NANO PARTICLE "** carried out by **ABHILASH .V (1SG12ME001), AKBARI RAHUL (1SG10ME063), RAKESH .V (1SG10ME034), VIVEK .T (1SG10ME056)**, a bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering**, affiliated to **Visvesvaraya Technological University, Belagavi** during the year **2015-2016**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Name & Signature of the Guide	Signature of the HOD	Signature of the Principal
(Prof. Girish.K.B)	(Dr. Manjunath.S.H)	(Dr. Aswatha Kumar M)

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the examiners	Signature of the examiner with date
1.	1.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

(AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI)

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitle **POWER GENERATION USING EXHAUST GAS WITH PRE HEATING ("RECOVERY OF IC ENGINE")** carried out by **PUNEET SINGH TOMAR, RITURAJ , SANTOSH KUMAR , SHAFI AHAMAD** bearing USN **1SG12ME040, 1SG12ME047, 1SG12ME050, 1SG12ME052** a bonafide student of **"SAPTHAGIRI COLLEGE OF ENGINEERING"**, Bengaluru in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2015-16.It is certified that all corrections suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Signature of Guide	**Signature of Principal**	**Signature of HOD**
Mr. Ajay Kumar K	Dr. Aswatha Kumar M.	Dr.Manjunath S.H.
Asst. Prof. Dept. of M.E., S.C.E.	S.C.E., Bengaluru	Dept. of M.E , S.C.E.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiners	**Signature of Examiners with date**
1.	1 .....
2.	2 .....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hessaraghatta Main Road, Bengaluru – 560057

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **"DETERMINATION OF RETURN FLOW CHARACTERISTICS FOR RSD DELIVERY VALVE HOLDER"** carried out by **VENKATAGUHA.V** and **VIJETH.S** bearing USN **1SG09ME057** and **1SG09ME058** respectively are bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **MECHANICAL ENGINEERING** of **Visvesvaraya Technological University**, Belgaum during the year **2012-13**. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the set degree.

Mr. A. M. MAHESHA	Dr. S. H. MANJUNATH	Dr. C PUTTAMADAPPA
Name & signature of the guide	Name & signature of the HOD	Name & signature of the Principal

H.O.D. Dept. of Mech. Engg
S.C.E., Bangalore-560 057

External Viva

Name of the Examiners	Signature with Date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57, Karnataka

CERTIFICATE

Certified that the Project work entitled **"FABRICATION OF MANUALLY OPERATED BRIQUETTING MACHINE"** carried out by **DARSHAN M S (1SG12ME018), GOWDA P B (1SG12ME021), NITISH R M (1SG12ME039), RANJITH A (1SG12ME045),** are bonafide students of VIII semester, Department of Mechanical Engineering, submitted in partial fulfillment for the award of Bachelor's degree in Mechanical Engineering of Visvesvaraya Technological University, Belagavi during the year 2015-2016.

Prof. MAHESHA A M Associate Professor,	**Dr. MANJUNATH S H** Prof. and HOD	**Dr.ASWATHA KUMAR** Principal, Sapthagiri College of Engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the Examiners	**Signature with Date**
1.	.....
2.	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Benagluru-560057, Karnataka

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

This is to certify that project entitled "CHARACTERIZATION OF WEAR AND HARDNESS PROPERTIES OF SILICON CARBIDE AND GLASS PARTICULATE REINFORCED WITH ALUMINIUM ALLOY 6061 BASED HYBRID METAL MATRIX COMPOSITE" has been satisfactorily completed by **ARUN S (1SG13ME400), CHETHANA G (1SG13ME402), HITESH PATIL S (1SG12ME403), VINAY KUMAR R.S (1SG12ME411)** students of 8th semester, Department of Mechanical Engineering in partial fulfillment of requirements for the award of Bachelor's degree in Mechanical Engineering by Visvesvaraya Technological University, Belagavi during academic year 2015-2016.

28/5/16

Mr. MADHU KUMAR Y.C	Dr. MANJUNATH S.H	Dr. ASWATHA KUMAR M
Assistant Professor, Department of Mechanical Engineering	Prof. and Head, Department of Mechanical Engineering	Principal, Sapthagiri College of Engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of Examiners	Signature with Date
1.	.....
2.	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled "**FABRICATION AND PERFORMANCE TEST OF PARABOLIC SOLAR WATER HEATER**" carried out by **Mr. KIRAN K G, JAYARAJU B, ARUNKUMAR K M** bearing **USN 1SG12ME028, 1SG13ME404, 1SG12ME067** a bonafied student of "**SAPTHAGIRI COLLEGE OF ENGINEERING**" in partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of **Visvesvaraya Technological University**, Belagavi during the academic year 2015-2016. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements with respect of project work prescribed for the said degree.

27/5/16

PADMANABHA G
Assistant professor

25.5.16

Dr. MANJUNATH S H
Professor and Head

Dr. ASWATHA KUMAR M
Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Road,
Bangalore-560 057

External Viva

Name of the Examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that Project work entitled **"DEVELOPMENT OF WEAR AND CORROSION RESISTANT PLASMA SPRAYED Al_2O_3 AND ZrO_2 COATINGS ON MILD STEEL"** is carried out collectively by **ANKIT ANAND, ARUN KUMAR K, AZARODIN, DEVIPRASAD, KALYAN CHAKRAVARTHI** bearing USN's **1SG12ME005, 1SG12ME006, 1SG12ME008, 1SG12ME017, 1SG11ME028** respectively, are bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **Bachelor of Engineering** in **MECHANICAL ENGINEERING** of **Visveswaraya Technological University, Belagavi** during the year **2015-2016.** All corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in the report of project work prescribed for the said degree.

Azarkumar.R

Signature of guide
Mr. ARUN KUMAR R.
Assistant Professor
Dept. of M.E

Signature of HOD
Dr. Manjunath S.H.
Professor & Head

Signature of principal
Dr. Aswatha Kumar M
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled "**Synthesis, Microstructure and Wear Properties of Zirconium Nano Metal Matrix Composite**" carried out by **RISHAV KUMAR (1SG12ME046), RAMACHANDRA NAIK A.L (1SG12ME044), SAMEER AHAMED (1SG12ME048), NITISH KUMAR CHAUBEY (1SG11ME039)** are bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi During the Year 2015-2016.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
(Prof. Girish K.B)	(Dr. Manjunath S.H)	(Dr. Aswath Kumar M)
Associate Professor	Professor and Head	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of examiner — Signature of the examiner with date

1.

2.

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57, Karnataka

CERTIFICATE

Certified that the Project work entitled **"FABRICATION OF MANUALLY OPERATED BRIQUETTING MACHINE"** carried out by **DARSHAN M S (1SG12ME018), GOWDA P B (1SG12ME021), NITISH R M (1SG12ME039), RANJITH A (1SG12ME045)**, are bonafide students of VIII semester, Department of Mechanical Engineering, submitted in partial fulfillment for the award of Bachelor's degree in Mechanical Engineering of Visvesvaraya Technological University, Belagavi during the year 2015-2016.

Prof. MAHESHA A M Associate Professor,	**Dr. MANJUNATH S H** Prof. and HOD	**Dr.ASWATHA KUMAR** Principal, Sapthagiri College of Engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the Examiners	**Signature with Date**
1.	.....
2.	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Benagluru-560057, Karnataka

CERTIFICATE

This is to certify that project entitled **"CHARACTERIZATION OF WEAR AND HARDNESS PROPERTIES OF SILICON CARBIDE AND GLASS PARTICULATE REINFORCED WITH ALUMINIUM ALLOY 6061 BASED HYBRID METAL MATRIX COMPOSITE"** has been satisfactorily completed by **ARUN S (1SG13ME400), CHETHANA G (1SG13ME402), HITESH PATIL S (1SG12ME403), VINAY KUMAR R.S (1SG12ME411)** students of 8th semester, Department of Mechanical Engineering in partial fulfillment of requirements for the award of Bachelor's degree in Mechanical Engineering by Visvesvaraya Technological University, Belagavi during academic year 2015-2016.

28/5/16

Mr. MADHU KUMAR Y.C	Dr. MANJUNATH S.H	Dr. ASWATHA KUMAR M
Assistant Professor, Department of Mechanical Engineering	Prof. and Head, Department of Mechanical Engineering	Principal, Sapthagiri College of Engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore-560 057

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

Name of Examiners	Signature with Date
1.	.....
2.	.....

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled "**FABRICATION AND PERFORMANCE TEST OF PARABOLIC SOLAR WATER HEATER**" carried out by **Mr. KIRAN K G, JAYARAJU B, ARUNKUMAR K M** bearing USN **1SG12ME028, 1SG13ME404, 1SG12ME067** a bonafied student of "**SAPTHAGIRI COLLEGE OF ENGINEERING**" in partial fulfillment for the award of Bachelor of Engineering in Mechanical Engineering of **Visvesvaraya Technological University**, Belagavi during the academic year 2015-2016. It is certified that all the corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements with respect of project work prescribed for the said degree.

27/5/16

PADMANABHA G
Assistant professor

Dr. MANJUNATH S H
Professor and Head

Dr. ASWATHA KUMAR M
Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Road,
Bangalore-560 057

External Viva

Name of the Examiners	Signature with date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that Project work entitled **"DEVELOPMENT OF WEAR AND CORROSION RESISTANT PLASMA SPRAYED Al_2O_3 AND ZrO_2 COATINGS ON MILD STEEL"** is carried out collectively by **ANKIT ANAND, ARUN KUMAR K, AZARODIN, DEVIPRASAD, KALYAN CHAKRAVARTHI** bearing USN's **1SG12ME005, 1SG12ME006, 1SG12ME008, 1SG12ME017, 1SG11ME028** respectively, are bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **Bachelor of Engineering** in **MECHANICAL ENGINEERING** of **Visveswaraya Technological University, Belagavi** during the year **2015-2016.** All corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in the report of project work prescribed for the said degree.

Arunkumar.R

Signature of guide
Mr. ARUN KUMAR R.
Assistant Professor
Dept. of M.E

Signature of HOD
Dr. Manjunath S.H.
Professor & Head

Signature of principal
Dr. Aswatha Kumar M
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled "**Synthesis, Microstructure and Wear Properties of Zirconium Nano Metal Matrix Composite**" carried out by **RISHAV KUMAR (1SG12ME046), RAMACHANDRA NAIK A.L (1SG12ME044), SAMEER AHAMED (1SG12ME048), NITISH KUMAR CHAUBEY (1SG11ME039)** are bonafide students of this institute, in partial fulfillment for the award of **Bachelor of Engineering in Mechanical Engineering of Visvesvaraya Technological University, Belagavi During the Year 2015-2016.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
(Prof. Girish K.B)	(Dr. Manjunath S.H)	(Dr. Aswath Kumar M)
Associate Professor	Professor and Head	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of examiner	Signature of the examiner with date
1.	
2.	

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Hesaraghatta Main Road, Chikkasandra, Bengaluru, Karnataka-560057

(AFFILIATED TO VISVESVARYA TECHNOLOGICAL UNIVERSITY)

CERTIFICATE

Certified that the project work entitled **"PNEUMATIC 4-AXIS MATERIAL HANDLING EQUIPMENT"** carried out by **ADITI JAHAGIRDAR (1SG12ME002), AMIT SINGH (1SG12ME004), GANGA SAGAR (1SG12ME020), GAURAV KUMAR (1SG11ME018)**, bonafide students of 8th semester of Mechanical Engineering Department of **SAPTHAGIRI COLLEGE OF ENGINEERING**, submitted in partial fulfillment for the award of Bachelor of Engineering in Mechanical engineering of the Visvesvaraya Technological University, Belagavi during the year 2015-2016. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Srinivasarao K. 27/5/16.

Mr. SRINIVASA RAO K.	**Dr. MANJUNATH S. H.**	**Dr. ASWATHA KUMAR**
Assistant Professor,	Prof. and Head,	Principal,
Mechanical Engineering	Mechanical Engineering	Sapthagiri College of
Department	Department	Engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiners	Signature with Date
1.	.....
2.	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57, Karnataka

CERTIFICATE

Certified that the Project work entitled **"FABRICATION OF MANUALLY AND MOTOR OPERATED SUNFLOWER SEED DECORTICATER"** carried out by **BALAJI GOWDA T (1SG12ME009), MANOJ J (1SG12ME031), HARISH KUMAR S (1SG12ME022), SUBRAMANI S N (1SG12ME056),** are bonafide students of VIII semester, Department of Mechanical Engineering in partial fulfillment for the award of **Bachelor's degree in Mechanical Engineering** of the Visvesvaraya Technological University, Belagavi during the year 2015-2016.

Mr. RAM KUMAR M Assistant Professor,	**Dr. MANJUNATH S.H** Prof. and Head,	**Dr.ASWATHA KUMAR** Principal, Sapthagiri of Engineering

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

Name of the Examiners	**Signature with Date**
1.	.....
2.	.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to Certify that project work entitled **"FABRICATION OF FOUR WHEEL STEER VEHICLE"** is carried out collectively by **M C Rakesh, Vishwa Chethan M V, Vivek H, Kiran Kumar Gowda V P** bearing USN's **1SG12ME029, 1SG12ME062, 1SG12ME063, 1SG13ME406** respectively, are bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **Bachelor of Engineering** in **MECHANICAL ENGINEERING** of **Visvesvaraya Technological University, Belagavi** for the academic year **2015-2016**. It is certified that all corrections suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in the report of project work prescribed for the said degree.

Signature of guide	Signature of HOD	Signature of principal
(Siddesh Naik V.)	**(Dr.Manjunath S.H.)**	**(Dr. Aswatha Kumar M.)**
Assistant Professor	Professor and Head	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

External Viva

Name of the Examiners	Signature with Date
1.	
2.	

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the project work entitled **"STUDY OF THE MECHANICAL PROPERTIES OF KENAF FIBRE REINFORCED EPOXY COMPOSITES"** carried out by **HARSHITH P, HEMANTH N R, DARSHAN KUMAR R, RAJATH KUMAR R** bearing **USN: 1SG12ME023, 1SG12ME024, 1SG12ME041, 1SG12ME043** bonafied students of **"SAPTHAGIRI COLLEGE OF ENGINEERING"** in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2015-2016**.It is certified that all corrections /suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the said Degree.

30/05/16		
Signature of guide	Signature of HOD	Signature of principal
T Venkate Gowda	**Dr. Manjunath S H**	**Dr. Aswatha Kumar**
Assistant Professor	Professor& Head	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1.	
2.	

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

This is to certify that Project work entitled **"DESIGN AND DEVELOPMENT OF HOLD-DOWN, RELEASE AND DEPLOYMENT MECHANISM FOR A SPACECRAFT ANTENNA"** is carried out collectively by **SANKET M NAIK, SHARAN SARGUR, SUPRADEEP RAO M S, SURAJ B** bearing USN's **1SG12ME049, 1SG12ME053, 1SG12ME058, 1SG12ME059,** respectively, are bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **Bachelor of Engineering** in **MECHANICAL ENGINEERING** of **Visveswaraya Technological University, Belagavi** during the year **2015-2016.** All corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in the report of project work prescribed for the said degree.

Signature of guide
Dr. Manjunath. S. H.
Professor & Head

Signature of HOD
Dr. Manjunath S.H.
Professor& Head

Signature of principal
Dr. Aswathar Kumar M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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EXTERNAL EXAMINATION

Name of the Examiners	Signature with Date
1.	
2.	

Principal
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SAPTHAGIRI
College of Engineering
Creating Tommorow

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5,Chikkasandra, Hesaraghatta Main Road, Bengaluru– 560057

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **"FABRICATION OF POTENTIOMETER OPERATED STEERING"**, is carried out by Chethan S (1SG12ME014), Chethan N (1SG12ME015), Karthik P.H (1SG12ME026), Nikhil Gowda (1SG12ME036) , a bonafide students of 8th Semester Mechanical Engineering in partial fulfillment for the award of Bachelor of Engineering , Visvesvaraya Technological University, Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

PR
27/5/16

Signature of the Guide

Signature of the HOD

Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore-560 057

External Viva

Name of the examiners	Signature with date
1.	
2	

Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

SAPTHAGIRI
College of Engineering
Creating Tommorow

CERTIFICATE

Certified that the project work entitled "**DESIGN AND FABRICATION OF SOLAR TRACKING SYSTEM**" carried out by **Mr. BASAVARAJ D JOGOJE, NATARAJ V G, NAVEEN BHAT P, SRIRAM G N** bearing **USN: 1SG12ME010, 1SG12ME034, 1SG12ME035, 1SG12ME055** bonafied students of "**SAPTHAGIRI COLLEGE OF ENGINEERING**" in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year **2015-2016**.It is certified that all corrections /suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of Project work prescribed for the said Degree.

Signature of guide	Signature of HOD	Signature of principal
Girish K B	**Dr. Manjunath S H**	**Dr. Aswatha Kumar M**
Associate Professor	Professor& Head	Dr. Aswatha Kumar. M Principal Sapthagiri College of Engineering No. 14/5, Chikkasandra, Hesaraghtta Main Road, Bangalore-560 057

EXTERNAL EXAMINATION

Name of the Examiners
1.
2.

Signature with Date

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

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[AFFILIATED TO VTVSVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI]

Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitle **"FABRICATION OF AUTOMATIC PNEUMATIC PUNCHING MACHINE"** carried out by **BIKAS KUMAR, BITU KUMAR SINGH , RAJ KUMAR, SHUBHAM SAURABH** bearing **USN: 1SG12ME011, 1SG12ME012, 1SG12ME042, 1SG12ME054** bonafide students of **"SAPTHAGIRI COLLEGE OF ENGINEERING"** in partial fulfillment of the award of **Bachelor of Engineering** in **Mechanical Engineering** of the **Visvesvaraya Technological University,** Belagavi during the year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

28/05/2016

Signature of the Guide	**Signature of the HOD**	**Signature of the Principa**
Pramod S.V.	Dr. Manjunath S.H.	Dr.Aswatha Kumar M.
Asst. Prof. Dept. of M.E., S.C.E.	Dept of M.E., S.C.E.	S.C.E., Bengaluru.

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghtta Main Road,
Bangalore-560 057

External Viva

Name of the Examiners	**Signature of Examiners with date**
1.	1. .....
2.	2. .....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main road, Bengaluru-560057, Karnataka

CERTIFICATE

This is to certify that project entitled **"REMOTE CONTROLLED HYDRAULIC JACK"** has been satisfactorily completed by **ARADHYA G S (1SG12ME403), NAGESH B N (1SG12ME406), SHIVA R (1SG12ME412), PARTHIV PATEL G A (1SG12ME413)** students of 8th semester of the Department of Mechanical engineering in partial fulfilment of requirements for the award of Bachelor's degree in mechanical Engineering presented by Visvesvaraya Technological University, Belagavi during academic year 2014-2015.

Mr. RAM KUMAR M
Assistant Professor,
Department Of Mechanical Engineering

Dr.ASWATHA KUMAR
Principal,
Sapthagiri college of Engineering, Bengaluru

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Dr.MANJUNATH S H
Head of Mechanical Engineering Department

Name of Examiners

1. .....
2. .....

Signature of Examiners

.....

.....

Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main road, Bengaluru-560057, Karnataka

CERTIFICATE

This is to certify that project entitled **"Design Analysis and Fabrication of Ornithopter"** has been satisfactorily completed by

G.SRIKANTA (1SG11ME017), KARTHIK.T.R (1SG12ME404)

K.MANOJ SARALAYA (1SG11ME027) ,MASUD KARIM LASHKER (1SG11ME034)

students of 8th semester of the Department of Mechanical engineering in partial fulfilment of requirements for the award of Bachelor's degree in mechanical Engineering presented by Visvesvaraya Technological University, Belagavi during academic year 2014-2015.

Dr. MANJUNATH S.H
Name & Signature of the Guide

Dr. MANJUNATH S.H
Name & Signature of the HOD

Dr. Manjunath S.H.
M.E, PhD,. MISTE, FIE
Professor & Head
Department of Mech Engg.
Sapthagiri College of Engineering
Bengaluru - 560 057.

Dr. ASWATHA KUMAR M
Name & Signature of the Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

Name of Examiners

1. G.S.R.S.H.I.K.A.N.T.A
2. P. Mahadevaiah

Signature of Examiners

9/6/15

09/6/15

Principal
Sapthagiri College of Engineering
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, chikkasandra, Hesaraghatta Main Road, Bengaluru-560057
Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **"EXPERIMENTAL INVESTIGATION OF BLENDS OF NEEM AND PONGAMIA BIODIESEL ON C.I ENGINE"** by **MANOJ KUMAR M R, NARENDRA M N , AVAN MUDEGOWDRA, PATIL SHIVAPUTRAGOUDA,** respectively are bonafide students of 8th semester **Mechanical Department** of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **MECHANICAL ENGINEERING** of the **Visvesvaraya Technological University** during the year 2014-15. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

Dr. MANJUNATH S.H
Name & Signature of the Guide

Dr. MANJUNATH S.H
Name & Signature of the HOD

Dr. ASWATHA KUMAR M
Name & Signature of the Principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
Hesaraghatta Main Road,
Bangalore -560 057.

External Viva

Name of the Examiners	Signature with Date
1.	
2.	

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560057
Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **"FABRICATION OF SHEET METAL SHEARING MACHINE"** by **ABZAL PASHA, ANILAKUMARA G, KIRAN KUMAR KS, NAVEENA PC**, respectively are bonafide students of 8th semester **Mechanical Department** of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **MECHANICAL ENGINEERING** of the **Visvesvaraya Technological University** during the year 2014-15. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

Vinaykumar M.J 08/06/2015
VINAYKUMAR M J
Name & Signature of the Guide

Dr. MANJUNATH S.H
Name & Signature of the HOD
Dr. Manjunath S.H.
M.E, PhD,. MISTE, FIE
Professor & Head
Department of Mech.Engg.
Sapthagiri College of Engineering
Bengaluru - 560 057.

Dr. ASWATHA KUMAR M
Name & Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Name of the Examiners — Signature with Date

External Viva

1.

2.

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, chikkasandra, Hesaraghatta Main Road, Bengaluru-560057

DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled **"DESIGN AND FABRICATION OF PIN ON DISC WEAR TESTING MACHINE"** by **ARUN J R, GAUTHAM G N, KISHORE M R, VIVEKANANDA K DHADESURAMATH,** respectively are bonafide students of 8th semester **Mechanical Department** of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **MECHANICAL ENGINEERING** of the **Visvesvaraya Technological University** during the year 2014-15. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

Prof. GIRISH K.B
Name & Signature of the Guide

Dr. MANJUNATH S.H.
M.E., Ph.D., MISTE, FIE
Professor & Head
Name & Signature of the Head
Department of Mech Engg.
Sapthagiri College of Engineering
Bengaluru - 560 057.

Dr. ASWATHA KUMAR M
Name & Signature of the Principal
Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
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External Viva

Name of the Examiners

1.

2.

Signature with Date

Principal
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Bangalore- 560 057

CERTIFICATE

SAPTHAGIRI
College of Engineering

Certified that the project work entitled "FABRICATION OF TORSION TESTING MACHINE" is carried out by JAGMINDERPAL SINGH(1SG11ME024), KSHATRAPATI KUMAR(1SG11ME030), RAJESH KUMAR(1SG11ME047), REHAN SIDDIQUEI(1SG11ME049) respectively are bonafide students of **8th semester, Department of Mechanical Engineering, Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor Of Engineering** in **MECHANICAL ENGINEERING** of the **Visvesvaraya Technological University**, Belagavi during the year 2014-15. It is certified that all corrections indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Prof. GIRISH.K.B	Dr.MANJUNATH.S.H	Dr.ASWATHA KUMAR M
Name & signature of the Guide	Name & signature of the HOD	Name & Signature of the principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore -560 057.

External Viva

Name of the Examiners	Signature with Date
1.	
2.	

Principal
Sapthagiri College of Engineering
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Bangalore-560 057

Department of Mechanical Engineering

CERTIFICATE

SAPTHAGIRI
College of Engineering

Certified that the project work entitled "FABRICATION OF PNEUMATIC MULTIPURPOSE MACHINE "is carried out by ABHINAV (1SG11ME001) ABHISHEK RANJAN (1SG11ME002) SONU KUMAR (1SG11ME054) VINISH KUMAR (1SG10ME054) ,respectively are bonafide students of 8th semester, **Department of Mechanical Engineering, Sapthagiri College Of Engineering** in partial fulfillment for the award of **Bachelor Of Engineering** in **MECHANICAL ENGINEERING** of the **Visvesvaraya Technological University**, Belagavi during the year 2014-15. It is certified that all corrections indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

6/6/15	6/6	
Mr. RAMESH N.G.	Dr.MANJUNATH.S.H	Dr. ASWATHA KUMAR M
Name & signature of the Guide	Name & signature of the HOD	Name & Signature of the principal

Dr. Aswatha Kumar. M
Principal
Sapthagiri College of Engineering
No. 14/5, Chikkasandra,
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Bangalore -560 057.

External Viva

Name of the Examiners — Signature with Date

1.

2.

Principal
Sapthagiri College of Engineering
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SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, chikkasandra, Hesaraghatta Main Road, Bengaluru-560057
Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **"MECHANICAL SOLAR TRACKING SYSTEM"** by **HANIF AHMED CHOUDHURY, NIKHIL B. AMATE, POTHIGARA AMIR HUSAIN, , SYED MUZZAMMIL AHMED,** respectively are bonafide students of 8th semester **Mechanical Department** of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **MECHANICAL ENGINEERING** of the **Visvesvaraya Technological University** during the year 2014-15. It is certified that all correction/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

08/06/15

T. VENKATE GOWDA
Name & Signature of the Guide

Dr. MANJUNATH S.H
Name & Signature of the HOD

Dr. Manjunath S.H.
M.E, PhD, MISTE, FIE
Professor & Head
Department of Mech.Engg.
Sapthagiri College of Engineering
Bengaluru - 560 057.

Dr. ASWATHA KUMAR M
Name & Signature of the Principal

Dr. Aswatha Kumar. M
Principal
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Name of the Examiners

Signature with Date

1. External Viva

Principal
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Bangalore- 560 057

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-57

Department of Mechanical Engineering

CERTIFICATE

Certified that the project report entitled **"DEVELOPMENT, TESTING & CHARACTERIZATION OF BIO-COMPOSITE"** carried out by **Mr. Akash G.C. (1SG11ME003), Mr. Akshay B. (1SG11ME005), Mr. Chetan Kumar P.G. (1SG11ME013) and Mr. Sadashiva C. (1SG11ME052),** Bonafide students of **SAPTHAGIRI COLLEGE OF ENGINEERING** in partial fulfillment for the award of **Bachelor of Engineering** in **Mechanical Engineering** of **Visvesvaraya Technological University, Belagavi** for the academic year **2014-2015**. It is certified that all corrections /suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

(Mr. Siddesh Naik V.)	**(Dr. Manjunath S.H.)**	**(Dr. Aswatha Kumar M.)**
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Department of Mechanical Engineering

CERTIFICATE

Certified that the project work entitled **"DESIGN, FABRICATION AND TESTING OF SMALL SCALE GAS TURBINE ENGINE"** carried out by **GOPAL KRISHNA.K.S (1SG11ME020), PRAJANANDA.V (1SG11ME043), RAVITEJA.G (1SG11ME048), SUJITH.G.K (1SG11ME055)** of 8th Semester **Mechanical Engineering** in partial fulfillment for the award of degree in **Bachelor of Engineering** at **Sapthagiri College of Engineering**, affiliated to Visvesvaraya Technological University, Belagavi during the year 2014-2015. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

Name & Signature of the Guide	Signature of the HOD	Signature of the Principal
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Certified that the seminar work entitled"*DESIGN AND DEVELOPMENT OF COCONUT DEHUSKING MACHINE*"carried out by**MANOJ V S(1SG14ME061),RAGHAVENDRA T(1SG14ME085) , ROHITH G S(1SG14ME092), GADILINGAPPA Y(1SG15ME409)**of 8th Semester**Mechanical department** in partial fulfilment for the award of degree in **Bachelor of Engineering** at *Sapthagiri College of Engineering*affiliated to **Visvesvaraya Technological University, Belagavi** for the academic year 2014-2015. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The seminar report has been approved as it satisfies the academic requirements in prescribed for the said degree.

Signature of the Guide
Mr. Chetan B P
Assistant Professor

12/6/18
Signature of the HOD
Dr. P. MAHADEVASWAMY
Professor and HOD

Signature of the Principal
Dr. K.L SHIVABASAPPA

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Name of the Examiners	Signature with Date
1. T. Venkategowda	14/06/18
2. Sandeep K Charan TOCE, Blore	14/6/18

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