

Honorable Chairman: Sri. Dayananda.G, Executive Director: Sri.G.D.Manoj.

DEPARTMENT OF MECHANICAL ENGINEERING

ROYAL BEATS

VISION

To create academically excellent and globally competent Mechanical professionals to serve the needs of society.

MISSION

- ❖ To instill strong foundation in mechanical domain through learner centric teaching methodology and to facilitate for higher education and research.
- ❖ To provide opportunity and resources for developing skills for employability, leadership and entrepreneurship to meet the social needs.
- ❖ To nurture industry academia interface for innovative knowledge sharing in interaction with industry and alumni.

PRINCIPALS MESSAGE

It gives me immense pleasure to note that, SCE has been publishing bi-annual newsletter and I am sure, this will provide an opportunity for the faculty and students to share their knowledge and beacon the information about various issues and activities that are being taking place in the department. I look forward for more activities and achievements for the department to march towards excellence in the future. I would like to thank all teaching, supporting staff and our beloved students for their active participation in publishing this magazine. My special compliments and congratulation to the editorial team of the department for their consistent effort in publishing this newsletter.



VICE PRINCIPALS MESSAGE

I am very happy and delighted to know that our college is bringing out the college newsletter. SCE is one of the leading premier engineering colleges in the country offering quality technical education to students thereby enabling them to become globally acceptable engineers in their domains. The newsletter provides a platform for both faculty and students to showcase their achievements and hidden talents. I congratulate our beloved principal and members of editorial board for bringing out this excellent and informative newsletter on time.

HODs Message

The ROYAL BEATS is a great way to stay connected with the mechanical department. Our aim is to create a platform to exchange information on all aspects of mechanical engineering, the original articles on innovation, and achievements by the faculty, students, alumni etc. are invited.

Memorandum of Understanding (MOU)

Memorandum of Understanding was made between Department of Mechanical Engineering, Sapthagiri college of Engineering and **TIA Technology India Pvt. Ltd.** Bangalore, on 1st August 2019.



Memorandum of Understanding was made between Department of Mechanical Engineering, Sapthagiri college of Engineering and MEDINI (Auto Desk). Bangalore, on 25th September 2019.



KSCST PROJECTS



Students of 8th sem Raghava Surya M, Kushal S, Manjunath M, Prateek S participated in KSCST project exhibition held at Dayanandsagar college of Engineering, Bangalore. The project titled Power Generation By Engine Exhaust Gas For Air Brake System was guided by Padmanabha G.

Students of 8th sem AJEYA.V, DAYANANDA M, MADAN KUMAR L, ANIRUDH R K participated in KSCST state level project exhibition held at KLE Society’s Dr.M.S. Sheshagiri College of Engineering and Technology, Belagavi on 26th and 27th July 2019. The project titled “Evaluation of Biofuel blended with prepared ethanol, N-Butanol & petrol based on performance & pollution level tests on an SI engine” was guided by Professor Raghuthoam Rao

PROJECT EXHIBITION

Final year students’ project exhibition was held on June 7th 2019 between 10 am to 1pm. Around 32 batches of students participated and demonstrated their projects. The projects were well designed and fabricated to address the issues related to Agricultural issues, Performance analysis of I.C.Engines, Power generation through alternate source of energy, Non-conventional energy sources etc. The project exhibition was well received by the students of other semester and branches and was appreciated by the faculties and heads of departments of other branches.



Students of 8th CHETAN GOWDA H S, MANISH RAO S, ROHITH J participated in KSCST State level project exhibition held at KLE Society’s Dr.M.S.Sheshagiri College of Engineering and Technology, Belagavi on 26th and 27th July 2019. The project titled “Design and Fabrication of Articulated 3D printer” was guided by Dr.M.Elangovan. This Project was awarded as “Best Project of the year”

FACULTY DEVELOPMENT PROGRAM



Five days Faculty Development Program on **“Teaching Methodology and Evaluation Procedure in Engineering Graphics and Design”** was organized by Department of Mechanical Engineering, from 22nd July to 26th July 2019.



Parent Teacher Meet was held on 21.09.2019



Industrial Visit Bharath Fritz Werner Ltd. By Advanced Learners on 03.10.2019



MECHATHON-2019 Three Days Workshop on IC Engines & Hydraulic Pump
For 1st , 3rd & 5th, Semester Mechanical Engineering students Resree's Research & Engineering, Bengaluru



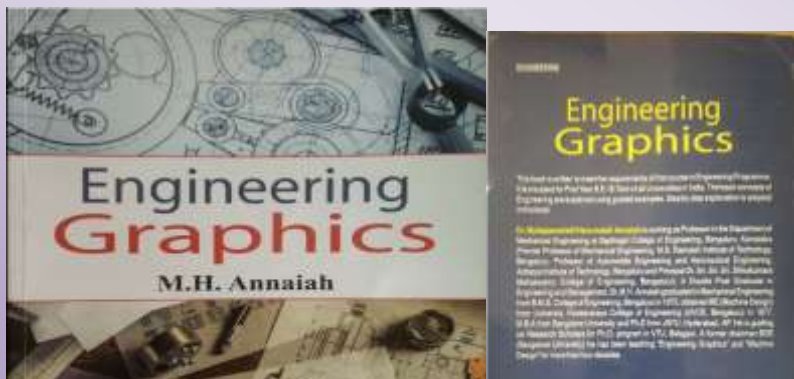
Mini Projects Exhibition 3rd and 5th Semester Mechanical Engg. Students

PAPER PUBLICATIONS

1. Professor Siva Murali Mohan Reddy A presented the paper on “Numerical “ in the three day International conference in “Numerical Optimization in Engineering & Sciences” organized by the Department of mathematics, National Institute of Technology, Warangal during 19th to 21st June, 2019.
2. Professor Dr. Tulsidas D presented a paper on “Fatigue Life & Creep Life Estimation of Rotor Blade Using Ansys” in Third International Conference on Recent Research Emerging Trends in Materials and Mechanical Engineering held on 12th & 13th July, 2019, held at REVA University, Bengaluru.
3. Professor Dr. Raghavendra Deshpandae presented a paper on “Implementations towards sustainable campus and smart city” in Third International Conference on Recent Research Emerging Trends in Materials and Mechanical Engineering held on 12th & 13th July, 2019, held at REVA University, Bengaluru.
4. Professor Dr. Mahadevaswamy P presented a paper on “Vibration control of clamped rectangular plate by dual flaps ” in Third International Conference on Recent Research Emerging Trends in Materials and Mechanical Engineering held on 12th & 13th July, 2019, held at REVA University, Bengaluru.
5. Professor Dr. Mahadevaswamy P presented a paper on “Free vibrational analysis of square plate under different boundary conditions using ANSYS and MATLAB” in Third International Conference on Recent Research Emerging Trends in Materials and Mechanical Engineering held on 12th & 13th July, 2019, held at REVA University, Bengaluru.

Books Published

The author of *Engineering Graphics and Design for Machine Elements 1 & 2* book is Dr. M H Annaiah, Vice Principal SCE. The book is for first year Engineering program and it is published by MEDTECH. This book is also prescribed text Book for VTU.



Books Published

Dr. R.G. Deshpande, has published *Product Life Cycle Management* Text book for 8th semester VTU syllabus under Suggi Publications.

Dr. Basavaraju.S, has published *A brief introduction to Polymer testing* book in Google Ebooks and available online.

NPTEL online Courses cleared by students and Faculty

NPTEL ONLINE CERTIFICATION COURSE November 2019.

Sl.No	Name	Semester	Topic name
1	Manasa K S	VII	Basics of Digital Marketing
2	Joepeter Francis	VII	Python for Data Science
3	Amogh G	VII	Manufacturing Automation
4	Dhanush V	VII	Basics of Digital Marketing
5	Hema M	V	Fluid Mechanics
6	Goutham S B	V	Fluid Mechanics
7	Ganesh Nischay S	VII	Product Design and Development

Sl.No	Name of the Faculty	Topic Name
1	Dr.Raghavendra Deshpandae	Advanced Composite Materials
2	Dr.Basavaraju S	Manufacturing of Composites
3	Ram Kumar M	Advanced Composite Materials
4	Prathima C N	Advanced Composite Materials
5	Dr.Basavar Ganiger	Fluid Machines
6	Ramesh.N.G	Fluid Mechanics

TURBO DRIFT

Go Kart team

A competition concluded at Kari Motor Speedway, Coimbatore October 2019. Sapthagiri Go Kart team achieved 7th place in the overall competition out of 120 teams participated.

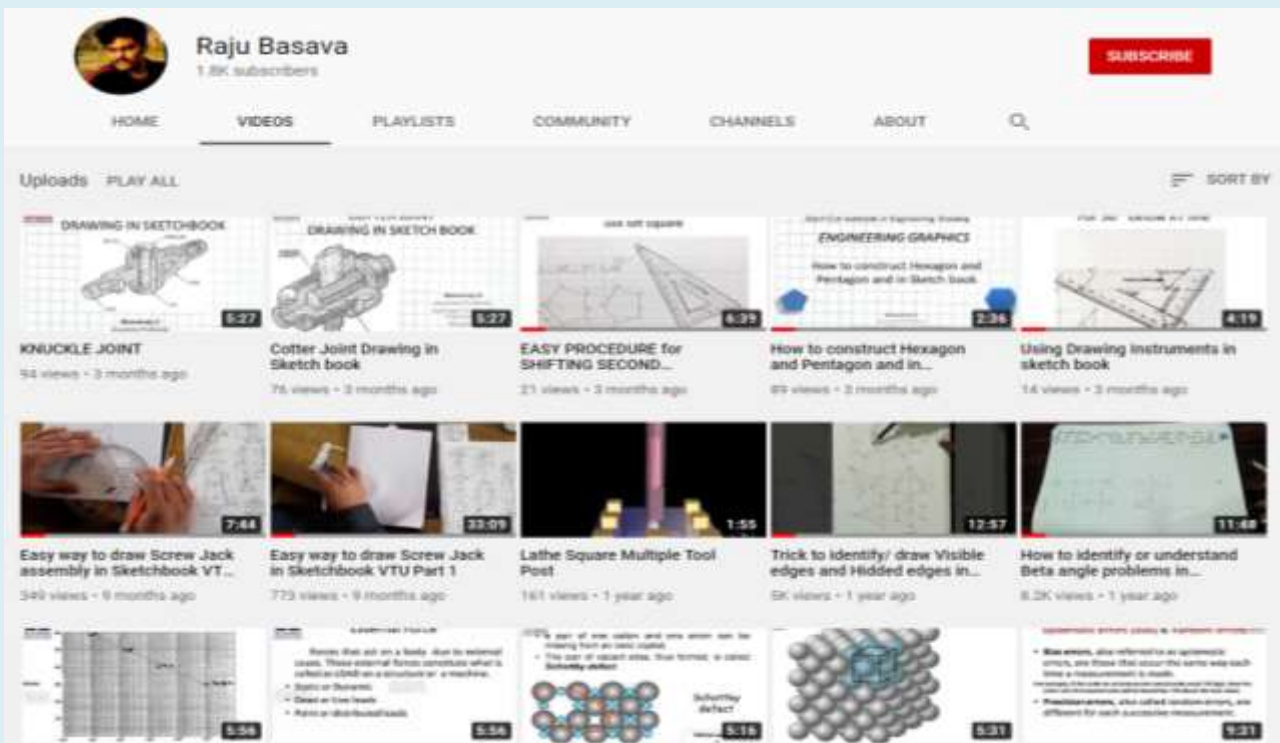
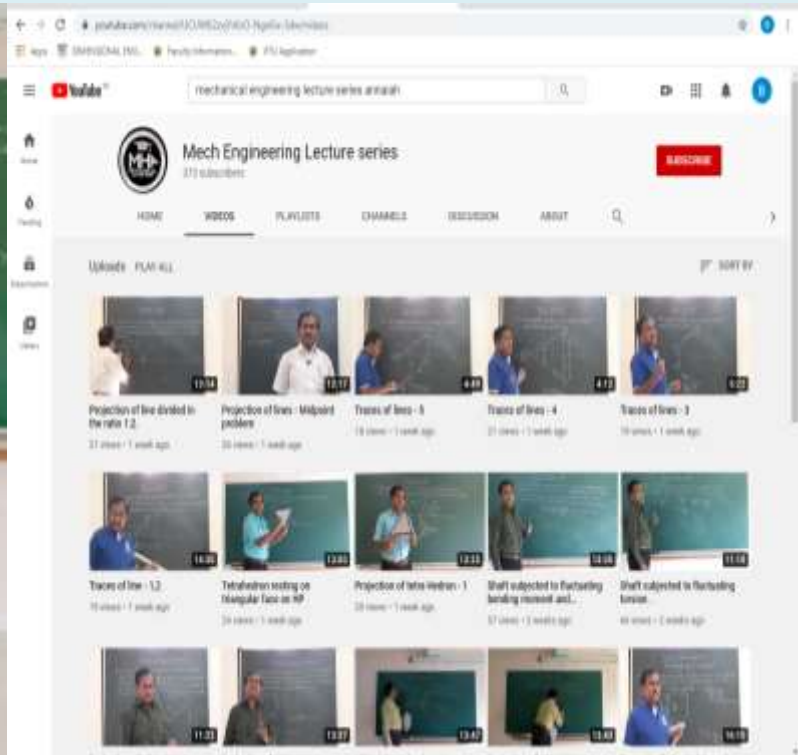


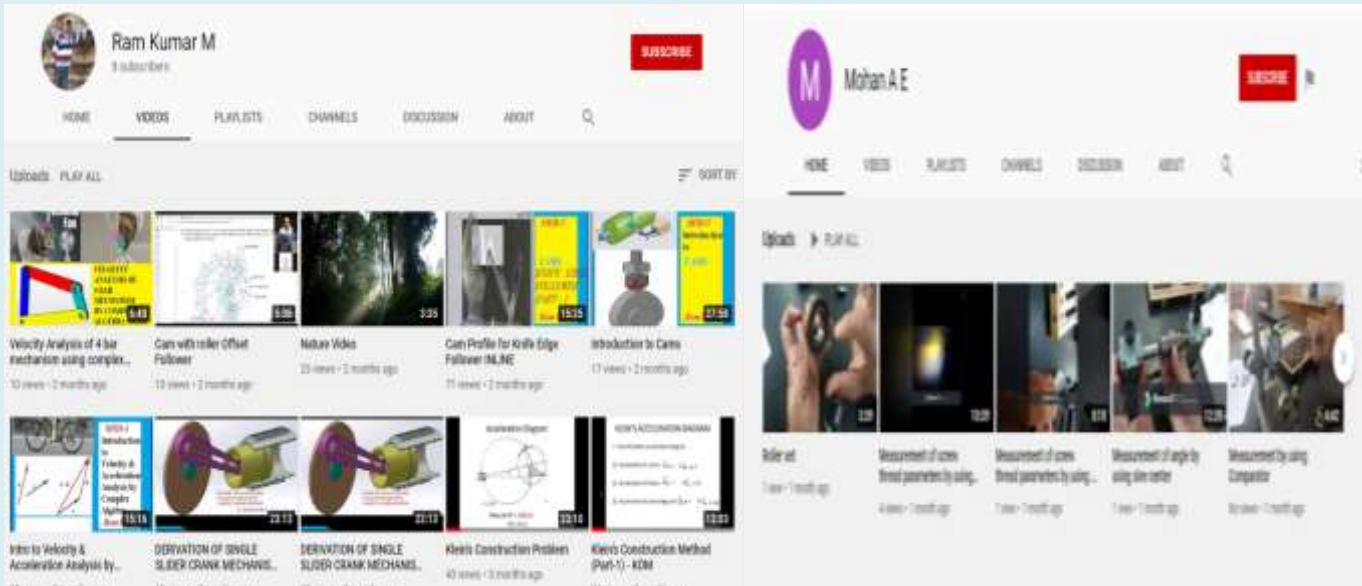
SPORTS DAY 2019-20**October 24th to 25th**

Maximum points was achieved by Mechanical Engineering Department students in annual sports day held on October 25th 2019.



ONLINE CLASSES BY FACULTY





VIDEOS PREPARED BY STUDENTS-MAC Club activities.



Youtube Video on Screw Jack Assembly Drawing by Nagesha.V.R. 4th Sem B.



Online Clutch engagement of an Automobile explanation by Mr.Tejas.4th sem. by

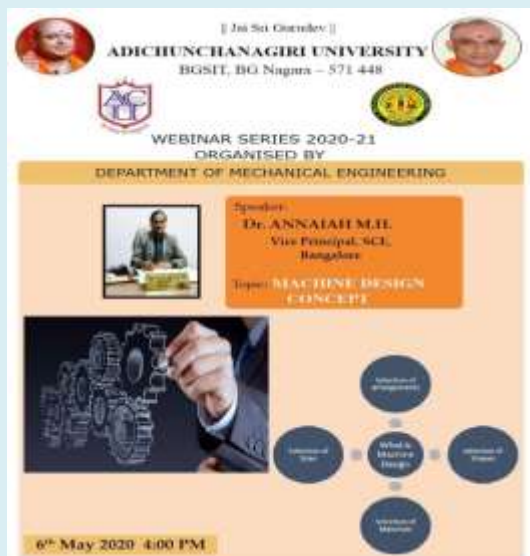
Student MAC Club.

WEBINARS



Online Webinar was conducted on June 8th by GRADPRO technologies on “Industry 4.0”. Mr.Adesh.K presented the seminar.

Online Webinar was conducted on June 10th by ENLEANYTICS technologies on “Enhancing employability opportunities through LinkedIn”. Mr.C.N.B.Rajesh. presented the seminar.



Dr.M.H.Annaiiah presented a Webinar on “Machine Design Concept” in Adichunchanagiri University. On 6th May2020.

IIIE CLUB ACTIVITY

Indian Institute of Industrial Engineers Club, SCE, organized a seminar on “Innovative Online Teaching Learning Methods” on 5th AUGUST 2020.



Vision and Mission of the Department

Vision of the Department:

To create **academically excellent** and **globally competent mechanical professionals** to serve the needs of society.

Mission of the Department:

1:To instill **strong foundation in mechanical domain** through learner-centric teaching methodology and to facilitate for higher education and research.

2:To provide opportunity and resources for **developing skills for employability, leadership & entrepreneurship** to meet the social needs.

3:To nurture **industry-academia interface** for innovative **knowledge sharing** in interaction with industry & alumni.

Program Educational Objectives (PEOs).

The expected achievements of ME graduates after 3-4 years of graduation are

PEO 01 Apply the principles of Mathematics, Science and Engineering to lead successful career in Mechanical and interdisciplinary fields.

PEO 02 Solve realistic problems in the allied areas of Mechanical Engineering such as Design, Thermal, Material Science and Manufacturing by addressing industry and social needs.

PEO 03 Demonstrate leadership skills with team spirit, effective communication, ethical values and environmental concern in multiple domains of engineering.

PEO 04 Engage in life-long learning through professional practice, higher studies and research in the field of Mechanical Engineering.

PROGRAM OUTCOMES (POs)

Engineering Graduates at the time of completion of degree will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs):

These outcomes are specific to ME at SCE should be able to attain the following at the time of graduation.

PROGRAM SPECIFIC OUTCOMES

- | | |
|-------------|--|
| PSO1 | Expertise in specialized areas of Mechanical Engineering such as Design, Thermal, Materials and Manufacturing with a focus on research and innovation. |
| PSO2 | Apply analytical, numerical and experimental skills with awareness of societal impact for solving Mechanical Engineering problems. |
| PSO3 | Apply modern tools and managerial skills to develop product in Mechanical and allied Engineering fields. |

CHIEF EDITOR: Dr.P.MahadevaSwamy

SUB EDITOR: Dr.Basavaraju.S & Prof.Satish Kumar.

Student Members: Deekshith Gowda BM