



SAPTHAGIRI COLLEGE OF ENGINEERING,
(Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi)
Department of Electronics and communication Engineering

Volume 4

December 2019

ECE PULSE



Vision: To be an endeavoring Department for providing globally relevant learning experience to the students.

MISSION: To Develop entrepreneurial skills of students to make them entrepreneurs rather than employees. To Inculcate societal responsibility in students. To Develop entrepreneurial skills of students to make them entrepreneurs rather than employees. To Partner with Industry for focusing on real-life problems and make learning more practical.

Chairman: Sri G. Dayanand: The “ECE pulse” newsletter of the department ECE is providing great space for the faculty and students to pen down their innovative ideas, imagination and perceptions to showcase their creativity. So, I take the opportunity to congratulate the department of ECE and its editorial team to successful release of this issue. I am sure that students and faculty will find the content of this edition very interesting and educating.



Executive Director: Sri G. D. Manoj: I am indeed happy to know that the department of ECE has taken initiative in realizing its monthly newsletter “ECE pulse” and urge faculties and students to make use of the platform to share and educate among themselves in publishing articles pertaining to the emerging domain and articles of interesting. I congratulate the team of editorial community and department of ECE.



Principal: Dr. H Ramakrishna: 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-Principal: Dr. M H Annaiah: 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 nformative newsletter on time.



Head of Department: Dr. Sateesh Kumar H C: It gives me an immense pleasure to note that ECE Department bringing up department Newsletter. I am sure this newsletter provides an opportunity to the students and the faculties of the department to project their talents through articles, reports of the various academic and technical programs. I congratulate our beloved principal, Vice-Principal and members of editorial board for bringing out this excellent and informative newsletter.



Industrial Visit To “Jetking Pvt Ltd”



Students and faculties at Jetking Pvt Lt

The Computer Communication Networks is the part of the academic curriculum as per the VTU Syllabus. To bridge the gap between the academic and industrial requirements, the Department of Electronics and Communication Engineering planned the industrial visit to Bangalore’s top Computer and Communication Networking center “Jetking Pvt Ltd”. The final year students of ECE department along with staff visited Jetking Pvt Ltd, Sadashivanagar, Bengaluru.

In the industrial visit students saw the Computer Data Center. They also learnt how the data center works and how to protect the data center from external environment. Different types of networking devices Switches, Hubs, Routers, Access points, Coaxial cables, optical fiber, Ethernet cable and Ethernet cable testers were shown.



Students Learning at Jetking

One-day workshop “Standard cells design using Cadence tool”

1-day workshop was conducted on 02.10.2019 Analog layout design, Layout fundamentals and Cadence tools options by expert Mr. Venkatesh M and his colleagues on Veena and Nitin, Techno Carve Solutions Llp. The students had the brief knowledge of Standard cells design using Cadence tool. The students were able to design standard cells in the lab. The session continued with topics such as Electromigration, sheet resistance calculation, compacting area and Layout shortcuts. Over all the session was useful for the 7th semester students by introducing them with practical session to VLSI beyond their syllabus and preparing them for industrial ready.



Faculties, students and Mr. Venkatesh M S



Students of 7th Sem learning in the workshop

One-day Hands-on Workshop “Introduction to Arduino”

One - day workshop was conducted on 29.09.2019 about Arduino by Mr. Siddhartha N Vadhar & Ms. Pooja Davda Director Zero Point Robotics Pvt. Ltd. Bangalore



The first session was Introduction to Arduino Controller by expert Mr. Shreekanth N, Mr. Shreyas Reddy and his colleagues, Zero Point Robotics Pvt Ltd. By this session student were able to have basic knowledge of ARDUINO and hence were able to technically know how to interface devices with ARDUINO.

Faculty Publications

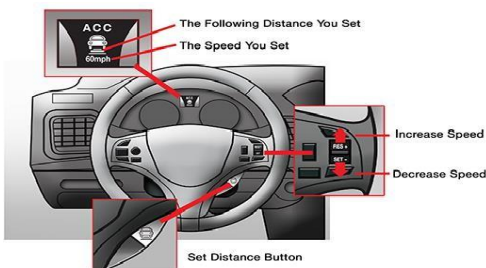
1. Padmavathi C. “An Automated Detection of CAD Using the Method of Signal Decomposition and Non Linear Entropy Using Heart Signals” International Journal of Image, Graphics and Signal Processing(IJIGSP) Vol.11, No.2, pp. 30- 39, 2019.DOI:10.5815/ijigsp.2019.02.04

2. Sudha M S, Thanuja T C “FPGA Implementation of DTCWT and PCA Based Watermarking Technique” International Journal of New Innovations in Engineering and Technology Volume 10 Issue 1 February 2019ISSN:2319-6319.
3. Pruthvi R., Mohan Varma K., Vinayaka L. S., Veeresh M., Vani A. “Fire detection and extinguisher robot”, International Journal of Advance Research, Ideas and Innovations in Technology(www.IJARIIT.com), ISSN: 2454-132x, Vol.5, Issue 2, page no. 1878-1880, April-2019.
4. Prakash Jadhav, Sai Eshwar K R Sheja Pandey “compression using ANN for virtual multimedia” IJMTE Volume 9 Issue 6 pages 1830-1840 ISSN NO:2249-7455
5. Vani A, Dr. Mamatha M N, "Visual feedback system for visually impaired using tACS – a proof of concept study", International Journal of Emerging Technologies and Innovative Research (www.jetir.org), ISSN:2349-5162, Vol.6, Issue 1, page no.738-743, January- 2019.

Technical article by Student

A.C.C VEHICLE'S THAT HELP REDUCE TRAFFIC

Traffic jams can form out of the simplest things. One driver gets too close to another and has to brake, as does the driver behind, as does the driver behind him — pretty soon, the first driver has sent a stop-and-go shock wave down the highway. One driving-simulator study found that nearly half the time one vehicle passed another, the lead vehicle had a faster average speed. All this leads to highway turbulence, which is why many traffic modelers see adaptive cruise control (A.C.C.) which automatically maintains a set distance behind a car and the vehicle in front of it as the key to congestion relief. Simulations have found that if some 20 percent of vehicles on a highway were equipped with advanced A.C.C., certain jams could be avoided simply through harmonizing speeds and smoothing driver reactions. One study shows that even a highway that is running at peak capacity has only 4.5 percent of its surface area occupied. More sophisticated adaptive cruise control systems could presumably fit more cars on the road.



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