

Electronics & Communication Engineering News Letter

“ PESITRONICS ” Imagination Becomes Reality

PES Institute of Technology & Management, Shivamogga

Affiliated to AICTE, ISO 9001 2015 Certified Institute, NH-206, Sagar road, Shivamogga-577204.

Vision

To be a leading center of excellence in the field of electronics and communication engineering for learning and research with professional ethics.

Mission

M1: To provide quality technical education for students to develop into globally competent professionals.

M2: To develop a framework for collaboration and multidisciplinary activities to ensure ethical and value based education to address social needs.

Dept. of Electronics and Communication Engineering became functional with the establishment of the institute in the year 2007. Being the core branch in Engineering, it has a lot of potential in various Sectors such as Telecommunication, IT, Low power VLSI Design, Embedded system & Robotics, and Manufacturing & Testing. The current intake for UG Program is 120.

Dept. of E&CE has highly skilled faculties, well equipped with latest laboratory equipments & industrial software's like CADENCE, MATLAB, Xilinx and more. Department has conducted and organized National Conference, workshops and technical talks related to the current trends and technology.

Staff and Students of E&CE have involved with several research/ curricular and co-curricular activities throughout the semesters and academic year, the PESITRONICS newsletter brings you the foretaste of all the activities in the E&CE Department.

National Conference on Advanced Research in Science, Engineering & Management (NCARSEM) 2018



Dept. of E&CE received large number of research papers from various engineering colleges with students from UG & PG background, some of the research work was based on Vedic arithmetic, Image processing, wormhole attack detection in WSN, VLSI & IoT. Best Research paper award was bagged by paper “Implementation of 16x16 Normal And Complex Number Vedic Multiplier” and a total of 19 numbers of papers were presented during the activity.

Technical Talk

Dept. of E&CE organized a technical talk on “Optical Networks” & Dr. Muralidhar Kulkarni, Dept. of E&CE, NITK Suratkal, was the resource person on this occasion. Dr. Muralidhar Kulkarni explained the importance of data communication and distinguished various form of data and explained how effectively the information can be transmitted and received from other end via optical means. A total of 200+ students & staff participated in the activity.



To succeed in your mission, you must have a single minded devotion to your goal

- Dr. A P J Abdul Kalam

Toppers of E&CE (Even Semester, Academic year 2017-18)

2nd Semester

Ms. Pragathi pai
4PM17EC064

4th Semester

Ms. Trupthi Kale
4PM16EC094

6th Semester

Ms. Pallavi Shet
4PM15EC060

8th Semester

Ms. Sushma J
4PM14EC099

Students Achievements

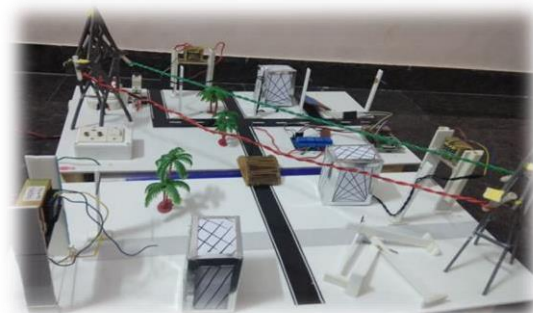
- Ms. Pragathi N (8th Sem): Participated and won several prizes in Solo & group singing competition. She is well known as VOICE of PESITM.
- Mr. Prasanna Bhat (6th Sem) :Participated and won in State Level Story Writing Competition held at Bengaluru organized by "EHOTHIGE " on 28th Jan 2018.
- Mr. Sujith B. K (2nd Sem.): Participated in quiz competition at VTU fest held in Belgaum, 2018 and secured 7th place position in the completion.
- Mr. Ganesh Prasad participated and won 1st place in Robotics line follower in ENIGMA held at MEC, Hassan.
- Mr. Ravinandan & Mr. Uday D J participated and won 3rd Place in Robotics line follower held at KLE Tech., Hubballi.
- Mr. Sanjay Y (6th Sem): Secured 2nd Place in "SA RE GA MA PA" event conducted in PRERANA Fest. 2018.
- Ms. Pallavi Shet (6th Sem) secured 2nd place in the Pencil Sketching competition conducted in PRERANA Fest. 2018.
- Team of 2nd Sem students participated and won Basket ball competition conducted in PRERANA Fest. 2018.
- Ms. Raksha, Ms.Arptha, Ms.Sahana attended VTU youth fest and secured second prize in folk dance, VTU youth fest Belagavi held on 22nd -24th April 2018.

Faculty Achievements

- Mr. Kunjan D. Shinde served as a resource person for a two-day Hands-on-experience workshop on "VLSI Design" at PES College of Engineering, Phaltan, on 2nd & 3rd April 2018.
- Mr. Jagadish M served as a resource person on a technical talk on "EM Simulation tool for Antenna Design" at Govt. Engineering College, Huvinahadagali, Bellary on 21st Feb. 2018.
- Mr. Vishnu V M completed the course work in 2018 and got registered for Ph.D. in 2015.
- Mr. Kunjan D. Shinde & Mr. Prashant S B got registered for Ph.D. in 2017.
- Mr. Pramod Rampur, Mr. Yogeasha G & Mr. Jagadish M published a research article on "Design and Implementation of Advanced Array Multiplier for Binary Multiplication on FPGA" in International Journal of Engineering and Technical Research 5(8):142-144DOI: 10.17577/IJERTV5IS080161
- Mr. Jagadish M published a research article on " Design of Hexagonal Shaped Split Ring Resonator for Multiband Behaviour" via Bonfringe International Journal.
- Ms. Manjula & Mr. Kunjan D. Shinde published a research article on "An innovative method for stitching the images to construct a panoramic images" IOSR-JECE referred journal, & "Optimization and alignment of multiple images to construct a panoramic images" e-ISSN: 2278-2834, p- ISSN: 2278-8735. Volume 13, Issue 2, Ver. I & II, PP 44-50 & PP 27-35 Respectively.

Sponsored Project

Our final year student project "Electric Lineman Safety with Password Based Circuit using Raspberry Pi 3" by Mr. Prateek S Kudalkar, Mr. Md. Zeeshan, & Mr. Naveed Pasha, under the guidance Mr. Amit Kumar K, Asst. Prof. Dept. of E&CE, got selected for sponsorship under 41st series Student Project Program (SPP) by Karnataka State Council for Science & Technology (KSCST), IISc Campus, Bengaluru, and got a sponsorship amount of Rs. 6500.00/- for the academic year 2017-18.



Description of the project work: It is found that fatal electrical accidents to the line man are increasing during the electric line repair due to the lack of communication and co-ordination between the maintenance staff and the electric substation staff. Hence to avoid this we are implementing a password based circuit breaker. Its basic function is to detect a fault condition and interrupt current flow. It protects an individual household appliance up to large switchgear designed to protect high voltage circuits feeding an entire city. The main objective of this work is to design a device that can perform these functions using keypad and password instead of switch to control the ON or OFF of equipments.



Learn everything that is good from others, but bring it in, and in your own way absorb it; do not become others

- Swami Vivekananda

Workshops

An activity which brings out the skills learnt in to action is none other than WORKSHOP; Dept. of E&CE has hosted good number of workshops to enhance the skills of students via practical learning and also to incorporate the peer learning process among the students.

Arduino UNO & IOT workshop (By the Students, To the Students)

A team of 3 Students attended a workshop on IoT and while returning they had zeal to educate their friends on the knowledge acquired, this gave a kick start to an idea of peer learning process. The Students of 5th semester lead by Aditya G. Rao (5th Sem) & coordinated by Mr. Kunjan D. Shinde & Mr. Praveen Shirur, organized a two day Hands-on-Experience workshop on “Arduino UNO & IoT” for 3rd year students & explored the architecture of Arduino UNO while interfacing several number of sensors and interacting them through cloud. A total of 90 students participated in the activity.



Introduction to Robotics

Faculties of E&CE (Mr. Amit Kumar K, Mr. Praveen Shirur & Mr. Kunjan D. Shinde) conducted a one-day workshop on Robotics for PES PUC and PES Public School (8th, 9th & 10th Std. Students). Workshop gave a insights on robotics domain and applications. During the practical session, our faculty and students demonstrated the working of PC-controlled robot (using E-Yantra robotics Setup) Object Following Robot, and customized Line Following Robot.



Basics of VLSI Design

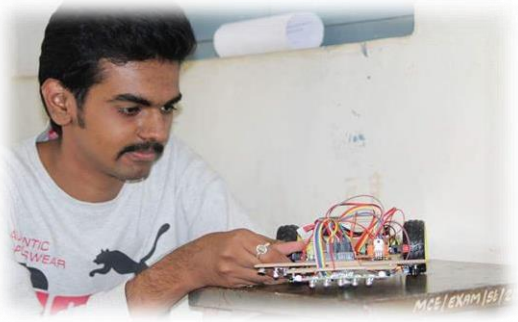
A brief insights on basics of electronic circuit design and manufacturing process of electronic components, Exploring Xilinx tool to test few digital circuits and identifying the RTL schematic view & its importance. A total of 60 students participated in the activity and was coordinated by Mr. Shivaprasad B K & a team of 10 students led by Mr. Aditya G.Rao. , Swathi S H & Supriya L T.



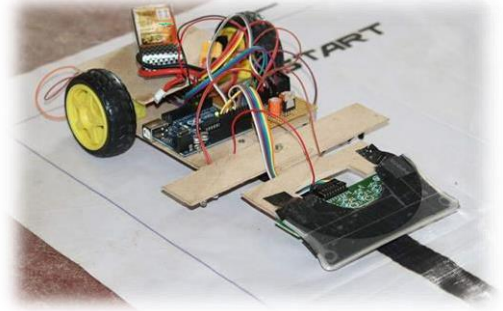
Education is what remains after one has forgotten what one has learnt in school.

- Albert Einstein

Robotics



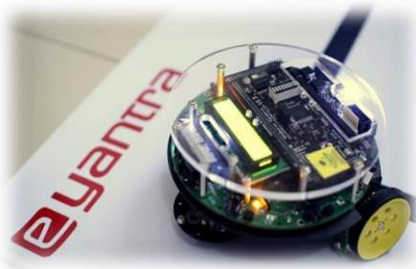
Mr. Ganesh Prasad of 4th Sem, E&CE, Participated & Secured 1st Place in National Level Line Following Robot Competition, in the ENIGMA-18 held at Malnad College of Engineering, Hassan.



Mr. Ravinandan and Mr. Uday D J of 4th Sem, Participated & Secured 3rd Place in Line Following Robot Competition in PLEADIS-18 held at KLE Technological University, Hubballi.



e-Yantra Lab Setup



e-Yantra is an initiative by IIT Bombay that aims to create the next generation of embedded systems engineers with a practical outlook to help provide practical solutions to some of the real world problems. At PESITM we have Fire Bird V and Spark kit setup where students utilize the same to develop and design solution to some problems.

e-Yantra is a unique annual competition for undergraduate students in science and colleges. Selected teams are given with a complete robotics kit with accessories and video tutorials to help them learn basic concepts in embedded systems and microcontroller programming. It is Sponsored by MHRD under the National Mission on Education through ICT program. (For more info. Visit <http://www.e-yantra.org/>)

Mars Rover



The Mars Orbiter Mission (MOM), also called Mangalyaan ("Mars-craft", from Sanskrit : मंगल mangala, "Mars" and yana, "craft, vehicle"), is a space probe orbiting Mars since 24 September 2014. It was launched on 5 November 2013 by the Indian Space Research Organisation (ISRO). It is India's first interplanetary mission and ISRO has also become the fourth space agency to reach Mars, after the Soviet space program, NASA, and the European Space Agency. It is the first Asian nation to reach Mars orbit, and the first nation in the world to do so in its first attempt. Curiosity is a car-sized rover designed to explore Mars as part of NASA's Mars Science Laboratory mission (MSL). Curiosity was launched from Cape Canaveral on November 26, 2011. (For more info. Visit <https://mars.nasa.gov/mer/home/>)

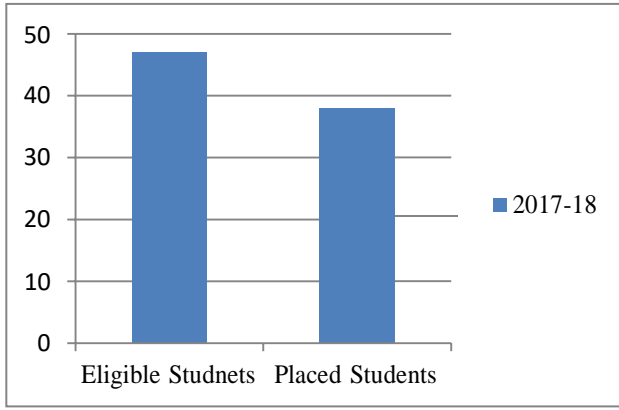
Big Dog



BigDog was funded by the Defense Advanced Research Projects Agency (DARPA) in the hopes that it will be able to serve as a robotic pack mule to accompany soldiers in terrain too rough for conventional vehicles. Instead of wheels or treads, BigDog uses four legs for movement, allowing it to move across surfaces that would defeat wheels. The legs contain a variety of sensors, including joint position and ground contact. BigDog also features a laser gyroscope and a stereo vision system. BigDog is 3 feet (0.91 m) long, stands 2.5 feet (0.76 m) tall, and weighs 240 pounds (110 kg), about the size of a small mule. It is capable of traversing difficult terrain, running at 4 miles per hour (6.4 km/h), carrying 340 pounds (150 kg), and climbing a 35 degree incline. Navigation and balance are also managed by the control system. (For more info. Visit <https://en.wikipedia.org/wiki/BigDog>)



Placements



Hearty Congratulations to all the Students for getting placed in the companies from the Management, Principal, teaching & non teaching Staff of E&CE, PESITM, Shivamogga.

The following are some useful web sites and links for students to enrich their skills and follow the passion

- www.indiabix.com
- www.sawaal.com
- www.edu.in
- www.testpot.com
- www.electronicsforu.com
- www.placementpapers.com
- www.freshworld.com

Key to Success by our placed students



Ms. Sushma J

Lesson Learnt : To be confident and to speak up whenever you have the opportunity during the interviews.
Advice : Learn, explore and make sure you upgrade yourself every day.



Mr. Sushanth K N

Lesson Learnt : Be transparent and confident on our answers.
Advice : Be strong with the fundamentals, showcase what you did.



Ms. Brincita P C

Lesson Learnt : Not all answers are in academic books. Build your own Knowledge
Advice : Never lose hope. Be confident and positive, success will find its way to you.



Mr. Prateek S K

Lesson Learnt : Programming and all other activities made my day fruitful and succeed in my 3rd attempt.
Advice : Never miss aptitude coaching class (career prime). If u clear first round, your attitude makes you to clear in further rounds. Not your marks.

Poems (when heart speaks and mind listens)

"ಗೊಂದಲಕ್ಕೊಂದೇ ಉತ್ತರ"
ಗೊಂದಲಗಳು ಹಲವು ಮನದಲ್ಲಿ,
ಉತ್ತರ ಹುಡುಕಲೇ? ಹೀಗೆ ಸಾಗಲೇ?
ಪ್ರಶ್ನೆಗಳು ಪ್ರಶ್ನೆಗಳಾಗಿಯೇ ಇರಲಿ ಬಿಡು,
ಉತ್ತರ ಹುಡುಕುವ ದಾರಿಯೂ ಗೊಂದಲ.
ಉತ್ತರವಿಲ್ಲದ ಪ್ರಶ್ನೆಗಳೇಕೆ ಎನ್ನುವ ಗೊಂದಲ,
ಉತ್ತರ ಮತ್ತು ಪ್ರಶ್ನೆಗಳ ನಡುವಿನ ದಾರಿಯೇ...
ಗೊಂದಲಮಯ.
ಈ ಗೊಂದಲಗಳಿಗಲ್ಲಾ ಪೂರ್ಣವಿರಾಮ,
ಹುಡುಕ ಹೊರಟಿರುವೆ "ಗುರಿ"ಯ ಮುನ್ನುಡಿಯಿಟ್ಟು.
- ಪದ್ಮಶ್ರೀ {ಶ್ರೀ}.

ಮಗುವಿನ ಮೊದಲ ನುಡಿ ಅಮ್ಮ ಅದರ ಹಸಿವು ನೀಗಿಸುವಳು
ಅಮ್ಮ ಅಮ್ಮನ ಹೊರೆತು ಜಗತೀಲ್ಲ ಬಾಳ ಬೆಳಕು ನಮಗಿಲ್ಲ
ಅವಳ ನಗುವೇಮಗೆ ಬೆಲ್ಲ ಅವಳಿಂದ ನುಡಿಯೇ ರಸಗುಲ್ಲ !!

- ನಯನ ಎಂ

"ಖುಷಿಗೇಕೆ ಕಾರಣ"
ಮಗುವಿನ ನಗುವಿಗೆ,
ನಗೆಯ ಹಿಂದಿರುವ ಖುಷಿಗೆ ಕಾರಣ ಬೇಕಿಲ್ಲ
ಒಡೆದು ಹೋಗುವ ನೀರ ಗುಳ್ಳೆಯೇ ಸಾಕಲ್ಲ!!
ನದಾ ನೆಮ್ಮದಿ ಅರಸುವ
ಬೆಳೆದ ಮನುಜನ ಖುಷಿಗೆ ಕಾರಣಗಳೇ ಸಿಗುತ್ತಿಲ್ಲ,
ಖುಷಿಯಲು ಖೇದ ಹುಡುಕುವನಲ್ಲ!!

- ಪದ್ಮಶ್ರೀ {ಶ್ರೀ}.



To give real service, You must add something which cannot be brought or measured with money.

- Sir. M V Visvesvaraya

Canvas/water Painting & Pencil Sketching



Aishwarya Kamath, 1st Sem
Canvas Painting



Swathi S H, 6th Sem
Canvas Painting



Swathi S H, 6th Sem
Water painting



Pallavi Shet, 6th Sem
Water painting



Megnana P S, 8th Sem
Canvas Painting



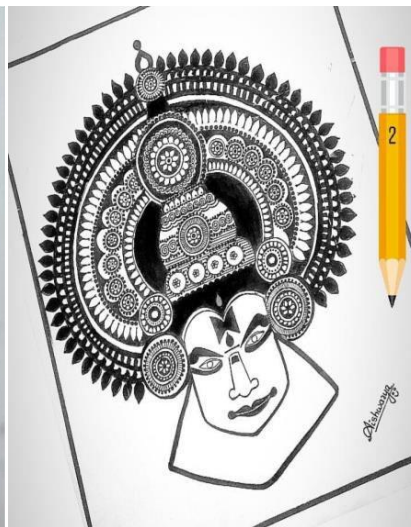
Nidhi Bhat, 8th Sem
Canvas Painting



Megnana P S, 8th Sem
Canvas Painting



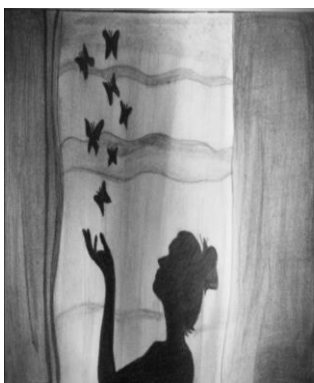
Meghana S, 8th Sem
Pencil Sketching



Aishwarya S Palankar
Pencil Sketching



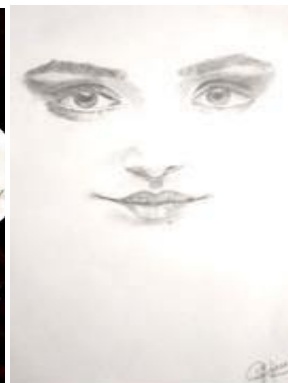
Meghana S, 8th Sem
Pencil Sketching



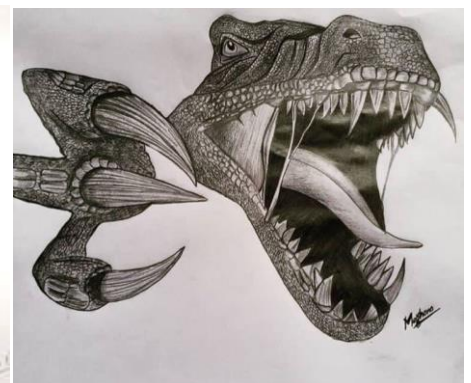
Arpitha L ,3rd Sem.
Pencil Sketching



Sananth S P
Pencil Sketching



Sinchana N
Pencil Sketching



Meghana S, 8th Sem
Pencil Sketching

Extra Curricular Activities

Industrial Visit to ACE components & BSNL RTTC , Mysore.

Dept. of E&CE organized a 2 days Industrial visit of “Ace Components and BSNL RTTC, Mysore” on 13th & 14th April 2018, faculty and students from 8th Semester participated in the programme. The program was organized under the guidance of Mr. Sukumar, Manager & the Students were accompanied by Mr Shivaprasad B.K, Mr.Vishwanath Muddi and Mr. Yogeesha G.



Intra Department Chess Competition



An Intra Dept. Chess Competition was conducted on 23rd March 2018, A total of 35+ students of various semesters participated in the activity, Mr. Sharath (8th Sem, A div) & Mr. Pavan (6th Sem B div) played against in the final round, Mr. Pavan (Black pawns) checkmated Mr. Sharath(White pawns) and won the game. The activity was coordinated by 5th Sem. A div Students & organized by Mr. Kunjan D. Shinde, Mr. Amit Kumar K and Mr. Praveen Shirur.

PRERANA fest. Activities Dept. of E&CE Organized Pencil Sketching/ Painting.

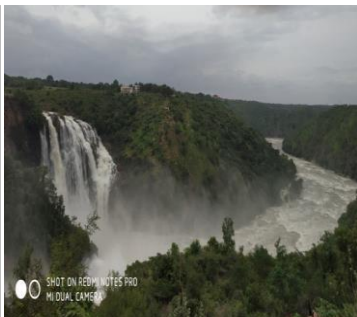
Students of E&CE of various semester, participated in the Pencil Sketching Competition during college fest.



Students Participation in Cultural/ Sports activities PRERANA Fest.



Photography (Nature that I see)

Uday D J (4th Sem)Ganesh (4th Sem)Pallavi Shet (6th Sem)Priya S K (6th Sem)Sanath Nayak (6th Sem)Sachin A C (6th Sem)Dixitha (4th Sem)Chandana P Patel (2nd Sem)Anushree Kamath (6th Sem)NaveenKumar (5th Sem)

Call for Newsletter Articles

We need articles for future additions of Newsletter

Please consider providing a short item of news, or an in depth article for the next edition of the newsletter. We would like to invite everybody to submit a short story/article/announcement that can fit in the following structure.

News items and announcements -

- Short, topical, news oriented technical/ non-technical topics.
- Paintings, sketches, comics, poems, dag-writings, short stories etc.
- Major and minor technical articles are also accepted.
- Jokes, Punch dialogues, quotes of your own could be included.
- All of above said matters could be accepted in English or in kannada formats

Feel free to communicate with the student and staff coordinators for more details.

- Editor



Editorial Team (From Left to Right)

- | | |
|--|----------------------|
| Mr. Adithya G. Rao (7 th A) | Mr. Vishwanath Muddi |
| Ms. Chandana P Patel (3 rd A) | Dr. Chandrappa D N. |
| Ms. Deepthi S V (3 rd A) | Dr. M Manoj Kumar |
| Ms. Sushmitha (5 th B) | Mr. Kunjan D. Shinde |
| Ms. Priyanka (5 th B) | |
| Ms. Niharika (5 th A) | |
| Ms. Sabakausor (3 rd B) | |
| Mr. Prassanna Bhat (7 th B) | |