



ERODE SENGUNTHAR ENGINEERING COLLEGE



(An Autonomous Institution)

(Approved by AICTE, New Delhi Permanently Affiliated to Anna University - Chennai)

Accredited by NAAC & National Board of Accreditation (NBA), New Delhi.)

PERUNDURAI, ERODE – 638 057

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Vision

- ✦ To provide competent and ethical electrical engineers finding solution to problem related to society, environment and industry using innovative technologies.

Mission

- ✦ To make a positive difference among electrical and electronics engineering students through innovative teaching learning methods
- ✦ To provide electrical and electronics engineering knowledge base at large for the upliftment of different background people
- ✦ To instill research oriented mindset and to develop well-furnished electrical and electronics engineering research labs
- ✦ To inculcate the moral and ethical values among students in order to make them competent and quality electrical and electronics engineers

Program Educational Objectives (PEOs)

- ✦ To impart fundamental electrical and electronics engineering knowledge through collaborative and case study methods of teaching learning process
- ✦ To produce quality electrical and electronics engineering graduates with in-depth technical knowledge including current issues and challenges in this field
- ✦ To develop and enhance research based facilities so as to address the industrial issues and challenges
- ✦ To imbibe effective communication, interpersonal and other managerial skills for the holistic development of EEE students

Program Outcomes (POs)

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)

- PSO1: Real World Knowledge-** Apply the knowledge in solving the real time problems and solutions to issues and challenges in Electrical and Electronics Engineering technologies.
- PSO2: Interdisciplinary Skill-** Design and develop interdisciplinary and innovative system.
- PSO3: Personality Development** – Imparting effective communication, team work and leadership skills for a successful career in industry and R&D.

ASSOCIATION ACTIVITIES

- The inauguration of EEE association (DYNAFEST 2020-21) ,IQAC,IE(I) Student Chapter and IEEE student branch activities for the academic year 2020-21 was held on 30.09.2020. Mr. P. Premkumar, PCRA, Chennai, inaugurated EEE association, IE (I) Student Chapter and IEEE student branch activities. Guest lecture I on the topic “Energy Conservation and Climate Change” was conducted on 30.09.2020. More than 150 students were participated in this function.
- Webinar on the topic “Artificial Intelligence and its Role in 2020” was conducted on 17.10.2020. Er. K.A. Vijay, Program Analyst, Cognizant Technology solution, Chennai was the resource person. More than 200 students were participated in this function.
- Workshop was conducted on 07.11.2020. The resource person was Dr.S.Vijayachitra, Professor and Head/EIE, Kongu Engineering College, Perundurai. More than 200 students were participated in this function.

TECHNICAL EVENT ATTENDED BY THE STUDENTS:

- V.Jothika and M.Mahendranof III year EEE attended a Technical Event on the topic “E-Quiz” conducted by Sri Ramakrishna Engineering College, Coimbatore on 14.08.2020.

WORKSHOP / SEMINAR ATTENDED BY THE STUDENTS:

- N.Keerthiraj, S.Lingeshwaran and E.Mohankumar of III year EEE attended a workshop on the topic “Virtual Reality” conducted by Pantech E Learning on 14.05.2020.
- L.Thirukkumaran, K.Karthikeyan and R.Mugilan of III year EEE attended a workshop on the topic “Electric Vehicle Design” conducted by Pantech E Learning on 15.05.2020.

- D.Nirmal and V.Mowleeswaran of III year EEE attended a workshop on the topic “Renewable Energy using MATLAB” conducted by Pantech E Learning on 16.05.2020.
- N. Leelavathi, R. Sangeetha and P. Poovesh of III year EEE attended a workshop on the topic “Trends and Technologies On VLSI” conducted by Pantech E Learning on 17.05.2020.
- N. Leelavathi, R. Sangeetha and P. Poovesh of III year EEE attended a workshop on the topic “Trends and Technologies On VLSI” conducted by Pantech E Learning on 17.05.2020.
- D. Saranya and S. Sanjeev Darshan of III year EEE attended a workshop on the topic “How ML works for Open CV Application” conducted by Pantech E Learning on 18.05.2020.
- T.Mahanandhini, M.Mohanapriya, V.NavanithaKrishnan and G.Pruthiyraj of IV year EEE attended a workshop on the topic “Object tracking using ML & Python” conducted by Pantech E Learning on 23.06.2020.
- S.Rajashobia, S.Santhoshkumar, M.Santhosh, K.V.Gopal and R.Gayathri of IV year EEE attended a workshop on the topic “Gesture Recognition Based Air Writing Using Open CV” conducted by Pantech E Learning on 23.06.2020.
- S. Sivapriyan, G. Sathish, S. Subash and V. Arthi of IV year EEE attended a workshop on the topic “Low power VLSI Design and Analysis” conducted by Pantech E Learning on 24.07.2020.
- M. Mohan, M. B. Jawahar, P. Janarthanan and V. Karuppasamy of IV year EEE attended a workshop on the topic “Deep learning using Tensor and Keras” conducted by Pantech E Learning on 27.07.2020.

- K.Mohanlal of II year EEE attended a workshop on the topic “Fundamentals of Javascript and DOM Bootcamp” conducted by SHAPEAI from 06-07-2020 to 13-07-2020.
- K.Mohanlal of II year EEE attended a workshop on the topic “Python and Computer Vision” conducted by SHAPEAI from 03-08-2020 to 09-08-2020.

PAPER PUBLISHED BY THE FACULTY MEMBERS:

- Dr. M. Shyamalagowri / ASP published a paper on “Self – Sustainable Power Substation Power Allocation with IoT based Wireless Transfer of Energy based Monitoring System” in International Journal of Engineering and Advanced Technology, ISSN: 2249 – 8958, Volume-9 Issue-5, June 2020.
- Mr. E. Immanuel Bright / AP published a paper on “Development of online intelligent transformer UPS for energy storage applications” in Elsevier: Materials Today, December 2020.
- Mr. L. Vijay Anand / AP published a paper on “Design and Development of IoT based Health monitoring system for Military applications” in Elsevier: Materials Today, December 2020.
- Mr. S. Vijayanand / AP published a paper on “Inspection of dynamic power in micro-grid system during impedance-based compensation” in Elsevier: Materials Today, December 2020.
- Mr. S. Vijayanand / AP published a paper on “On-Chip cache memory protection with tag-overflow buffer and its VLSI implementation” in Elsevier: Materials Today, December 2020.
- Mr. L. Anbarasu / AP(Sr.Gr.) published a paper on “Quality inspection system using IoT and image processing” in Elsevier: Materials Today, December 2020.



- Dr.P.Selvan published a paper on “Identifications of Irregularities in Mammographic Images Using Computer Aided Diagnostic Scheme” in Solid State Technology, ISSN: 0038-111X, Volume 63, Issue 6, pp 23098-23106, Dec., 2020.

PATENT PUBLISHED BY THE FACULTY MEMBERS:

- L. Anbarasu published a patent on “Design for Solar Panel Cleaning System using SPA Concept” in The Patent Office Journal No.23/2020, Application No. 202041017417A, Date of filing of Application 23/4/2020 and Publication Date on 5/6/2020.
- R. Senthil Kumar and E. Immanuel Bright published a patent on “Development of Intelligent Traffic Control for Emergency Vehicle” in The Patent Office Journal No.25/2020, Application No. 202041024932 A, Date of filing of Application 13/6/2020 and Publication Date on 19/6/2020.
- L. Vijay Anand and S. Vijayanand t published a patent on “Development of IoT based System to Detect and Prevent Child Abuse” in The Patent Office Journal No.28/2020, Application No. 202041027328 A, Date of filing of Application 27/6/2020 and Publication Date on 10/7/2020.
- E. Immanuel Bright and S. Vijayanand published a patent on “Development of smart system to avoid triples and over speed control in two wheelers” in The Patent Office Journal No.34/2020, Application No. 202041033794 A, Date of filing of Application 7/8/2020 and Publication Date on 21/8/2020.
- S Tamil Selvi published a patent on “IoT based surface dust finding and cleaning machine” in The Patent Office Journal No.39/2020, Application No. 202041039495 A, Date of filing of Application 11/9/2020 and Publication Date on 25/9/2020.
- Dr P Selvan published a patent on “Development of Real Time Traffic Control System using Digital Image Processing” in The Patent Office Journal No.39/2020,



Application No. 202041038823 A, Date of filing of Application 9/9/2020 and Publication Date on 25/9/2020.

- Dr. R. Muthukumar published a patent on “Design and Implementation of Home Automation using Voice Recognition” in The Patent Office Journal No.41/2020, Application No. 202041042683 A, Date of filing of Application 1/10/2020 and Publication Date on 9/10/2020.
- E.Immanuvel Bright and L.Vijay Anand published a patent on “Design and Development of RFID and Finger print based centralized voting system” in The Patent Office Journal No.45/2020, Application No. 202041046698 A, Date of filing of Application 26/10/2020 and Publication Date on 6/11/2020.
- Dr P Selvan published a patent on “Development of Real Time Traffic Control System using Digital Image Processing” in Application No. 2020103056, Date of filing of Application 28/10/2020 and Publication Date on 9/12/2020.

Paper / Project Prize Winners

| S. No. | Name Of The Student | Year / Semester | Name of the Event | Name of the Institution organized | Prize / Award | Date | Duration |
|--------|-----------------------------|-----------------|--------------------|--|---------------|------------|----------|
| 1 | K.UmaMaheswari M.Mythili | III/V | Paper presentation | Muthayammal Engineering College, Rasipuram | I-Prize | 30-06-2020 | One day |
| 2 | R.Sangeetha C.Pooja | III/V IV/VII | | | II-Prize | | |
| 3 | K.Kowsalya S.Janani | IV/VII | | | I-Prize | | |

Paper / Project Presentation Details

| S. No. | Name of the Student | Year / Semester | Name of the Symposium / Conference | Name of the Institution organized | National / International Level | Date | Duration |
|--------|--|-----------------|------------------------------------|--|--------------------------------|------------|----------|
| 1 | S.Lingeswaran | III/V | Paper Presentation | The GATE Academy | National | 07-06-2020 | One day |
| 2 | S.Lingeswaran | III/V | Project Presentation | The GATE Academy | National | 07-06-2020 | One day |
| 3 | V.Mowleeswaran E.Mohan Kumar V.Nandhini D.Nirmal R.Pavithran | III/V | Paper presentation | Kongunadu College of Engineering and Technology, Erode | National | 08-06-2020 | One day |



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