



# ERODE SENGUNTHAR ENGINEERING COLLEGE



(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



One day national level workshop on the topic “PCB Design and Hardware Implementation” was conducted on 02.03.2017. Mr.K.S.Kavin and Mr.A.Chandrasekaran, R&D Engineers, AB Technologies, Chennai were the resource person.



Leader’s talk –IV on the topic “Technical Skill Enhancement” presented by Er.V.Ravindran, Global Distributor, QI Group of Companies, Malaysia on 22.03.2017 for III year EEE students.



One Day National level Technical Symposium and National level Conference on “Quality through Innovations in Engineering” on 28.03.2017. Thiru. S.Nagalsamy, Retired Member, Tamil Nadu Electricity Regulatory Commission, Chennai.

### PAPER PRESENTED BY THE STUDENTS

- ✦ B. Vinoth kumar & S. Pradeep of II year EEE presented a paper on the topic “Smart Grid and Green Technology” conducted by GRT Institute of Engineering and Technology, Tiruthani on 27.08.2016.
- ✦ K. Yuvaraj & S. Manisha of II year EEE presented a paper on the topic “Solar Tree” conducted by GRT Institute of Engineering and Technology, Tiruthani on 27.08.2016 and got second prize (Rs 1000/-).
- ✦ Pradeep kumar & B. Sabarinathan of II year EEE presented a paper on the topic “Renewable Energy Sources” conducted by K. S. Rangasamy College of Engineering, Tiruchengode on 02.09.2016.

- ✚ M. Periyar of III year EEE presented a paper on the topic “Triples Avoided in Two Wheeler” conducted by K. S. Rangasamy College of Engineering, Tiruchengode on 02.09.2016.
- ✚ Pradeep kumar & B. Sabarinathan of II year EEE presented a paper on the topic “Power Electronics and Drives” conducted by The Kavary College of Engineering, Salem on 09.09.2016.
- ✚ S. Vinoth kumar & U. Venkatesan of II year EEE presented a paper on the topic “Power Electronics and Drives” conducted by The Kavary College of Engineering, Salem on 09.09.2016.
- ✚ S. Manisha & H.J. Induja of II year EEE presented a paper on the topic “Scada Automation for Thermal Power Plant” conducted by Sasurie College of Engineering, Vijayamangalam from 03.02.2017 to 04.02.2017.
- ✚ S. Pradeep & K.A. Vijay of II year EEE presented a paper on the topic “Image Processing using RFID implemented parking System” conducted by Kongu Engineering College, Perundurai on 17.02.2017.
- ✚ V. Sheyam kumar & B.M. Thiruniraiselvam of III year EEE presented a paper on the topic “Biomedical Instrumentation Sensitive Skin” conducted by Sri Ramakrishna Engineering College, Coimbatore on 22.02.2017.
- ✚ S. Pradeep & K.A. Vijay of II year EEE presented a paper on the topic “Traffic System” conducted by Sastra University, Tanjore on 24.02.2017.
- ✚ B. Sabarinathan of II year EEE presented a paper on the topic “Embedded System using ARM17” conducted by Sastra University, Tanjore on 24.02.2017..
- ✚ R. Saravana kumar of II year EEE presented a paper on the topic “Performance Analysis of Flate Plate Solar Collector” conducted by Sastra University, Tanjore on 24.02.2017.
- ✚ B. Poonkuzhali & L. Sangeetha of II year EEE presented a paper on the topic “Detection and Addiction avoids using Emedded System” conducted by Erode Builders Educational Trust, Kangayam on 24.02.2017 & 25.02.2017.
- ✚ S. Aarthima of II year EEE presented a paper on the topic “Solar Power Satellite” conducted by Erode Builders Educational Trust, Kangayam on 24.02.2017 & 25.02.2017.
- ✚ R. Karthikeyan, K.S. Arulmurugan, N.M. Anathi & R. Rathipriyanka of IV year EEE presented a paper on the topic “Soil Inspection Robot for Hyperponic Plantation” conducted by Christ The King Engineering College, Coimbatore on 04.03.2017.

✚ R. Divya, V. Gowtham, S. Navin kumar & B. Sankar of IV year EEE presented a paper on the topic “Smart Home Automation Control using Voice Recognition and IoT” conducted by Vivekanandha College of Engineering for Women, Tiruchengode on 08.03.2017 & 09.03.2017.

✚ R. R. Karthikeyan, K.S. Arulmurugan, N.M. Anathi & R. Rathipriyanka of IV year EEE presented a paper on the topic “Soil Inspection Robot for Hyperponic Plantation” conducted by Sri Ramanathan Engineering College, Tirupur on 08.03.2017 & 09.03.2017.

#### PROJECT PRESENTED BY THE STUDENTS

✚ P. Anandhan & C. Tharun kumar of III year EEE presented a project on the topic “Remote Control LED Application” conducted by K.S. Rangasamy College of Engineering, Tiruchengode on 02.09.2016.

✚ P. Sharath & V. Vishnu of III year EEE presented a project on the topic “Eco-friendly Generator” conducted by K.S. Rangasamy College of Engineering, Tiruchengode on 02.09.2016.

✚ Sivaganapathy, N. Venkatraman & K.S. Veerakeshav of III year EEE presented a project on the topic “Eco-friendly Generator” conducted by Jai Shree Ram College of Engineering, Tirupur on 09.09.2016.

✚ K.S. Veerakeshav, K. Anbarasu & N. Venkatraman of III year EEE presented a project on the topic “Video chat for Deaf and Dumb People” conducted by Sri Ramakrishna Institute of Technology, Coimbatore on 06.02.2017 and got second prize.

✚ Pradeep Kumar, C. Sathiskumar, Gagan & Bharathiraja of II year EEE presented a project on the topic “Waste Heat Energy converted into Electrical Energy” conducted by Adiyaman Engineering College, Hosur on 16.03.2017.

#### WORKSHOP ATTENDED BY THE STUDENTS

✚ S. Pradeep, B. Vinoth kumar, R. Saravanakumar K. Vijay & A. Bhuvaneshwaran of II year EEE attended a workshop on the topic “Internet of Things” conducted by K.S. Rangasamy Institute of Engineering and Technology, Tiruchengode on 23.08.2016 and 24.08.2016.

✚ S. Pradeep of II year EEE attended a workshop on the topic “Hand Controlled Bot” conducted by Indian Institute of Technology, Madras on 02.02.2017.

- ✚ K. Poornima of III year EEE attended a workshop on the topic “Hands on Embedded System Development with Robotics” conducted by Selvam College of Technology, Namakkal on 03.02.2017.
- ✚ Sivaganapathy of III year EEE attended a workshop on the topic “Design and Implementation of Power Transmission and Distribution System” conducted by P. A. College of Engineering and Technology, Pollachi on 24.02.2017.
- ✚ S. Vinothkumar, Uthamdamani, Dhanushya, Induja & Manisha of II year EEE attended a workshop on the topic “Augumented Reality” conducted by Top Engineers, MIT, Chennai on 02.03.2017.
- ✚ P.M.E. Valayapathi & G. Sownthar Rajan of III year EEE attended a workshop on the topic “Embedded System and VLSI Design” conducted by Top Engineers, MIT, Chennai on 10.03.2017 & 11.03.2017.
- ✚ C. Tharun Kumar, G. Gowri Shankar, G. Nirmal & G. Sankar of II year EEE attended a workshop on the topic “Digit Recognition” conducted by NIT, Trichy on 10.03.2017 & 11.03.2017.
- ✚ P.Anandhan of III year EEE attended a workshop on the topic “Signal loud Smart Gloves” conducted by NIT, Trichy on 10.03.2017 & 11.03.2017.
- ✚ K. Umasankari & S. Aarthima of II year EEE attended a workshop on the topic “Digital Automation” conducted by Government College of Engineering, Salem on 14.03.2017.

**WORKSHOP ATTENDED BY THE FACULTY MEMBER:**

- ✚ Mr.L. Anbarasu, Assistant Professor(Sr.G)/EEE attended one day National Workshop on the topic “The Art of Writing Research Papers for High Indexed Journals” organized by Dr. A. Shanmugasundaram R&D cell, Department of CSE, Annapoorana Engineering College, Salem on 23/07/2016.

**FACULTY DEVELOPMENT PROGRAMME ATTENDED BY THE FACULTY MEMBERS**

- ✚ Dr.P. Selvan, Prof. M. Shyamalagowri, Mr.L. Anbarasu, Mr.L. Vijay Anand, Mr.G.S. Satheeshkumar, Mr.B. Ragavendra, Mr.E. Immanuvel Bright , Mr.S.P. Dwarakesh, Mr.S. Tamilselvi, Mr.R. Senthilkumar, Mr.S. Vijayanand, Mr.G. Gunasekaran were attended Faculty Development Programme on the topic “Foundation of Electrical Engineering” conducted by Department of EEE & E&I, Erode Sengunthar Engineering College, Thudupathi from 13/06/2016 & 14/06/2016.

**PAPER PRESENTED BY THE FACULTY MEMBERS**

- ✚ Dr. P. Selvan, Mr. R. Senthil Kumar and Mr. S. P. Dwarakesh has presented a paper on the topic “Novel MPPT method with SEPIC converter for a grid connected hybrid system” in International conference on Emerging trends in engineering & Technology at Arunachala college of Engineering for women, Kanyakumari on 9th and 10th December 2016.
- ✚ Prof. M. Shyamalagowri , L. Vijay Anand , Immanuvel Bright and S.Vijayanand has presented a paper on the topic “A Cascade Multilevel Inverter Using a Single DC Source” in International Conference on Emerging trends in Engineering, Science and Sustainable Technology, Erode Sengunthar Engineering College, Erode on February 2017.
- ✚ Dr.P.Selvan, L.Anbarasu, S.P.Dwarakesh and G.Gunasekaran has presented a paper on the topic “An elemental analysis on dynamic stability in a micro-grid system during compensations with impedance based analysis” in International Conference on Emerging trends in Engineering, Science and Sustainable Technology, Erode Sengunthar Engineering College, Erode on February 2017.
- ✚ R.Senthil Kumar has presented a paper on the topic “Smart Walking Stick For Visually Impaired People” in International Conference On Recent Trends In Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.
- ✚ S.P.Dwarakesh has presented a paper on the topic “Biometric Printer Security System” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.
- ✚ M.Shyamalagowri has presented a paper on the topic “Cyclic Load Energy Saver For Star Delta Induction Motor Using PLC” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.
- ✚ M.Shyamalagowri has presented a paper on the topic “Industrial Atmospheric Affluence Screening Using Zig bee Technology” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.
- ✚ M.Shyamalagowri has presented a paper on the topic “Artificial Network Based Harmonics Reduction Of Solar Fed Cascade Inverter” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.

✚ M.Shyamalagowri has presented a paper on the topic “Power Quality Improvement Of Non-Linear Electrical Load By Using Artificial Neural Network (ANN) For Harmonic Reduction” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.

✚ L.Anbarasu has presented a paper on the topic “Bridgeless Based Online Transformers UPS Power Supply System For Energy Storage Applications” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.

✚ Immanuel Bright.E has presented a paper on the topic “Z Source Network Based Sensor Less BLDC Motor with Minimized Commutation Torque Ripples Using DTC Method” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.

✚ G.Gunasekaran has presented a paper on the topic “Soil Inspection Robot For Hyperponic Plantation” in International Conference on Recent Trends in Engineering, Science And Technology 2017, Sri Ramanathan Engineering College, Tirupur on March 2017.

**PAPER PUBLISHED BY THE FACULTY MEMBERS**

✚ Mr. L. Anbarasu published a paper on the topic “Implementation, Simulation of Four Switch Converter Permanent Magnet Brushless DC Motor Drive for Industrial Applications” in the Journal of Advances in Chemistry, Volume 12, Number 6, ISSN 2321-807X, pp 4143-4165, July 2016.

✚ Dr.P.Selvan published a paper on the topic “ A Survey on Two Port DC-DC Converter Topologies for Energy Preservation” in the International Scientific Journal on Science Engineering & Technology, Vo1ume 19, No. 04, August 2016.

✚ Mr. L. Anbarasu published a paper on the topic “Data Logging Measurement Applications” in the Asian Journal of Research in Social Sciences and Humanities, Volume 6, Number 9, 2249-7315, pp 55-80, September 2016

✚ Dr.P.Selvan published a paper on the topic “Novel Hybrid High Gain Buck Boost Converter based Energy Saving PI Controller with Photovoltaic Fed Dynamic Voltage Restorer (PV-DVR) System” in the Asian



Journal of Research in Social Sciences and Humanities Vol. 6, No. 11, November 2016, pp. 610-629. ISSN 2249-7315 A Journal Indexed in Indian Citation Index.(List of updated journal 2016)

✚ Dr.P.Selvan published a paper on the topic “ Experimental Verification of Improved Two Port Hybrid High Gain Buck Boost Converter based Dynamic Voltage Restorer (PV-DVR) System for Social Welfare” in the International Journal of Printing, Packaging & Allied Sciences, Vo1ume 4, No. 01, December 2016, ISSN: 2320-4387.(Annexure I)

✚ Prof. M. Shyamalagowri L. Vijay Anand , S.Vijayanand and E.Immanuvel Bright published a paper on the topic “ A Cascade Multilevel Inverter Using a Single DC Source” in the SSRG International Journal of Electrical and Electronics Engineering (SSRG-JEEE), Part - 01, February 2017, E-ISSN: 2348 – 8379.

✚ Dr. P. Selvan published a paper on the topic “ A Cascade Multilevel Inverter Using a Single DC Source” in the SSRG International Journal of Electrical and Electronics Engineering (SSRG-JEEE), Part - 01, February 2017, E-ISSN: 2348 – 8379.

✚ Dr. P. Selvan, L.Anbarasu, S.P.Dwarakesh and G.Gunasekaran published a paper on the topic “ An elemental analysis on dynamic stability in a micro-grid system during compensations with impedance based analysis” in the SSRG International Journal of Electrical and Electronics Engineering (SSRG-JEEE), Part - 01, February 2017, E-ISSN: 2348 – 8379.

✚ R.Senthil Kumar published a paper on the topic “ Smart Walking Stick For Visually Impaired People” in the International Journal of Advanced Research in Basic Engineering Sciences and Technology (IJARBEST) Vol.3, Special Issue.24, March 2017, ISSN (ONLINE): 2395-695X ISSN (PRINT): 2395-695X.

✚ S.P.Dwarakesh published a paper on the topic “ Biometric Printer Security System” in the International Journal of Advanced Research in Basic Engineering Sciences and Technology (IJARBEST) Vol.3, Special Issue.24, March 2017, ISSN (ONLINE): 2395-695X ISSN (PRINT): 2395-695X.

✚ M.Shyamalagowri published a paper on the topic “ Cyclic Load Energy Saver For Star Delta Induction Motor Using PLC” in the International Journal of Advanced Research in Basic Engineering Sciences and Technology (IJARBEST) Vol.3, Special Issue.24, March 2017, ISSN (ONLINE): 2395-695X ISSN (PRINT): 2395-695X.

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✚ E.Immanuvel Bright published a paper on the topic “Z Source Network Based Sensor Less BLDC Motor With Minimized Commutation Torque Ripples Using DTC Method” in the International Journal of Advanced Research in Basic Engineering Sciences and Technology (IJARBEST) Vol.3, Special Issue.24, March 2017, ISSN (ONLINE): 2395-695X ISSN (PRINT): 2395-695X.

✚ G.Gunasekaran published a paper on the topic “Soil Inspection Robot For Hyperponic Plantation” in the International Journal of Advanced Research in Basic Engineering Sciences and Technology (IJARBEST) Vol.3, Special Issue.24, March 2017, ISSN (ONLINE): 2395-695X ISSN (PRINT): 2395-695X.



# CONGRATULATIONS RS 20,000/- FUNDS RECEIVED

**PROJECT TITLE** : Electric Power Generation for Television Using  
Solar Based Dish Antenna.

**FUNDING AGENCY** : R&D Grant in aid scheme

**FACULTY NAME** : L.ANBARASU, AP (Sr.Gr.)/EEE



**CONGRATULATIONS**  
**TOP SALARY PLACED STUDENTS**

**Maveric Systems Ltd., Chennai Rs 3, 60,000/-**



**NIVETHA, G.**



**THAMILARASAN, P.**



**ANANTHI, N.M.**

**Aspire Systems, Chennai Rs 2, 70,000/-**



**VIJAYASANTHI, D.**



**RAGHUL, R.**

**L.ANBARASU, AP (Sr. Gr.) /EEE**

**Chief Editor, ESEC EEE Newsletter**

**Editorial Committee**

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**P.Livina – IV EEE**

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