# VOLUME 1 Department of Electrical and Electronics Engineering Jyothi Engineering College, Thrissur

## VISION

To become a centre of excellence in electrical and electronics engineering through high quality technical education with emphasis on holistic excellence.

### MISSION

To inculcate ethical professionalism through value based quality education so as to equip the students with appropriate skills for a meaningful career and holistic excellence and promote creative engineering ideas for the benefit of the society.

## **PROGRAMME OUTCOMES**

Engineering Graduates 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.



## PROGRAMME EDUCATIONAL OBJECTIVES

1. Graduates shall have a good foundation in the fundamental and practical aspects of Mathematics and Engineering Sciences so as to build successful and enriching careers in the field of Electrical Engineering and allied areas.

2. Graduates shall learn and adapt themselves to the latest technological developments in the field of Electrical & Electronics Engineering which will in turn motivate them to excel in their domains and shall pursue higher education and research

3. Graduates shall have professional ethics and good communication ability along with entrepreneurial skills and leadership skills, so that they can succeed in multidisciplinary and diverse fields.

### **Students Achievements**

1. Amritha K., presented a paper on "Efficient Pollution Controller for Vehicles", In proc. of ICCCES-2020 Perinthalmanna, India, 26-27 February 2020.

2. Anitta Savy, presented a paper on "Automatic Solar Tracker", In proc. of ICCCES-2020 Perinthalmanna, India, 26-27 February 2020

3. Sneha, presented a paper on., " Ultrasonic smart glasses for blind", In proc. of ICCCES-2020 Perinthalmanna, India, 26-27 February 2020.

#### **Staff Achievements**

1. Mr. Jithin K. Jose delivered a webinar on "Industrial Automation - Trends and Technologies" on 9th June 2020

2. Dr. V Shijoh, published a paper on "Distributed State Estimation of a Non-linear process system with interconnected subsystems, Second International Conference on Materials Science and Manufacturing Technology, Coimbatore, Tamil Nadu, India, 9-10 April 2020. (Available at IOP Conference Series: Materials Science and Engineering, Volume 872 (SCOPUS))

3. Dr. Jarin T published an article on "Neural Proliferation using Brain stimulation Methods Intended for Pediatric Neuropsychiatric Population: A Hypothesis and Theoretical Investigation '' Article Info Volume 82 Page Number: 9138 – 9151 Publication Issue: January-February 2020.

4. Dr. Jarin T published a paper on "Intelligent Parking Management System using Dijkstra's Algorithm with Driver Preferences" Test Engineering and Management February 2020.

5. Dr.Shijoh.V acted as session chair and author for ICCCES-2020 International Conference, Perinthalmanna, India, 26-27 February 2020.

6. Mr.Jenson Jose published a paper 'Hybrid Control of a Multi Area Multi Machine Power System with FACTS Devices using Non-linear Modelling', in IET Generation, Transmission & Distribution, February 2020.

### **Department Activity**

A webinar on "Smart Gird Technology and its opportunities" was conducted on 26/06/20 by Dr.Kumaravel S, Assistant Professor, Department of Electrical Engineering, NIT Calicut.

