ROHINI

COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE and Affiliated to Anna University, (An ISO Certified Institution)

ELEKTRA

Voice of EEE

NEWSLETTER

2019

Electrical & Electronics Engineering

Email:hodeee@rcet.org.in

VISION AND MISSION OF THE DEPARTMENT

VISION

To create technically competent technocrats to meet the demand of Electrical and Electronics industry and societal need for the well being of human kinds.

MISSION

M1. To provide knowledge and skills necessary for professional Development in Electrical and Electronics Engineering.

M2. To promote research and creativity in the area of Electrical and Electronics Engineering.

M3. To promote team work and professional conduct in sociologicalactivities.

PROGRAM EDUCATIONAL OBJECTIVES

PEO 1: Graduates of the programme will posses career in technical and allied fields.

PEO 2: Graduates will have the ability to adapt to the growing technological requirement of the society through lifelong learning and team work.

PEO 3: Graduates of the programme will possess knowledge to pursue higher studies.

Programme Outcomes (POs)

Graduates of Electrical and Electronics Engineering will be able to:

PO1 Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 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.

PO3 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.

PO4 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.

PO5 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.

PO6 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.

PO7 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.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 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.

PO11 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.

PO12 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 Specific Outcomes (PSOs)

Graduates of Electrical and Electronics Engineering will able to:

PSO1. Develop skills to the expectations of the dynamic industrial practices in Electrical Engineering and allied areas.

PSO2. Analyse, design and integrate various renewable energy sources to meet the energy demand.

FOUNDER'S MESSAGE

Shri.K.NEELA MARTHANDAN
CHAIRMAN
Rohini College of Engineering and Technology

I am very glad to know that the students of the Department of EEE are bringing out a newsletter to throw light on the activities and achievements of their department. Such activities among the students will enhance their communication skills, technical skills, innovative thinking, analytical thinking and knowledge as well. I congratulate the students of department of EEE for taking up this task and I wish all the students of EEE can have a great future which is ahead.

"Be attentive at your work to achieve your goal"

MANAGING DIRECTOR'S MESSAGE

Dr.N.NEELA VISHNU
MANAGING DIRECTOR
Rohini College of Engineering and Technology

It is a great pleasure for me that our Electrical and Electronics Engineering department is releasing E- Newsletter "ELEKTRA". As the Managing Director of Rohini College of Engineering and Technology, I feel proud about it. We have taken an oath that we will develop RCET to world class standard and provide an overall development to all the students. We march towards that goal. We are happy that the students of RCET are properly shaping up, facilitating us to meet our goal. I wish all success to the EEE students.

"Training your minds to become engineers of innovation should be the first motto during your under graduation"

I wish you all success for your bright future.

PRINCIPAL'S MESSAGE

Dr.R.Rajesh,M.E,.Ph.D.
Principal
Rohini College of Engineering And Technology

It is a great pleasure for me that our Electrical and Electronics Engineering department is releasing E- Newsletter "ELEKTRA".

The magazine is presenting a glimpse of the growth of the institution on many fronts. Our students and faculties have performed exceedingly well and competent enough in all the fields. Beyond academics, the research activities are being conducted.

The college also motivates and encourages staff and students to undertake research and enterprising skills. The faculty members plays major role in the overall development of department and institute.

I extend my greetings and best wishes to the faculties and students of the department and wish their endeavors my very best.

Head of Department's Message

Prof.A.Nabisha
HOD / EEE
Rohini College of Engineering and Technology

Dear students of the Department of Electrical & Electronics Engineering, I am happy with an immense pleasure to convey my message for newsletter. Such activities will help the professional students to begin and pursue their voyage into new realms of knowledge.

On behalf of our students and faculty, it is my privilege to welcome all. We takes pride in our faculty, a team of highly capable and dedicated professionals, most of whom have academic and industrial experience and degrees from leading universities of the India. We provide ample opportunities to our faculty and students, through in house trainings, workshops and trainings outside the college campus for further growth and development.

The main objective of department of Electrical and Electronics Engineering is to conduct competitive research and deliver high quality teaching. We want to develop graduate engineers with the skills, knowledge and imagination to help shape our country.

I congratulate the department of EEE for delivering such a wonderful newsletter.

"Where hope would otherwise become hopelessness, it becomes faith".

EDITORIAL MESSAGE

'Creativity comes from trust. Trust your instincts.
And never hope more than you work."

It is an occasion of immense pleasure for the Department of Electrical and Electrical & Electronics Engineering to publish the E- Newsletter "ELEKTRA".

This newsletter is a digital way for us to communicate with our students, faculty members, alumni and industrial partners. This newsletter will provide a glimpse of the departmental activities and achievements.

This Newsletter focusing about different activities of department and achievement of students, Also it enlightens the readers about the latest happenings in Electrical department.

We look forward for more activities and achievements for the department to march towards excellence in the future.

The Editorial board also wants to thanks the Management of the Institute and Head of the department for inspiring us to go forward in publishing this newsletter.

Editorial Board

Prof. G.K.Jabash Samuel (Editor in Chief)

Prof. V.Ponselvan (AssociateEditor)

Mr.T.Anand (Assistant Editor)

About the Department

The Department of Electrical and Electronics Engineering was established in the year 2012 with an intake of 60 students with an objective of creating a leader in engineering education and research with the application of knowledge for uplifting the society globally. The Department stands as a unique centre for promotion of excellence in Electrical Engineering and has been successful in fulfilling its role in the rocketing technologies. The department is in the process of forming research groups in some of the key areas and collaborating with various institutions and corporations.

Electrical and Electronics Engineering discipline is multi-disciplinary by nature, representing a veritable synergy of different technologies. To meet the challenges of the new millennium, we train our students in the areas of artificial neural networks, fuzzy logic, finite element analysis, computer aided de- sign of electrical machines, micro-controllers and digital signal processing, generation, transmission and distribution of power, power system operation and control, Electrical Machines, Power Electronics and their control using computer methods etc.

The field of electrical and electronics engineering is one of the most important engineering disciplines that have changed the course of the world. The aim of the department is to establish itself as a center of excellence of teaching in its chosen areas. We are committed to establishing human and material infrastructure in this cause. A number of laboratories are in the process of being established for make teaching a effective way.

Basic Electrical Engineering Laboratory:

This lab aims at familiarizing the students with the basic electrical components,their characteristics & applications in day to day life. Moreover in this lab we are making the students aware with the different theorems, laws, networks, circuitsetc. which are the basic building materials of all those huge electrical equipments, transmission lines, motors, generators etc. The purpose of this lab is to provide a clear concept with basic idea related to electrical circuits RC, RL,LC, RLC, etc. with which they will have to carry for better understanding in the coming semesters. The lab has all the facilities to perform the experiments.

Electrical Machines Laboratory:

Machines laboratory is one of the biggest lab of the department. It is equipped With various conventional AC , DC machines along with other accessories like DC voltage source, loads, rheostats, modern ammeters, voltmeters, watt meters, millimeters etc. for conducting various experiments & developmental works .

All these machines are used for training the students to impart sound knowledge in the area of electrical machines. Some of the major setups are:-

- 10 KVA alternator coupled with synchronous machine
- 5HP –Slip ring IM
- IM coupled with DC shunt motor.
- 1-phase transformers.
- Coupled DC Machine (shunt, series, compound).

Electrical machines lab is one of the oldest lab established in the Institute. The machine lab has DC machines, AC machines and special type of machines. This lab is used by undergraduate students in their regular lab work. All available machines are having a set up bench with latest supporting measuring equipment. Lab also supports students in their different type of project work and various experiments based on machines are performed in Electrical machines course.

Control System Laboratory:

It is well equipped lab with all the facilities like multi meters, voltmeters etc. including proper guidance as in all other labs .Major setups available with this lab are DC Servomotor speed torque characteristics trainer, AC servo position control system trainer, AC servomotor speed torque characteristic trainer etc. Here students can exercise their theoretical knowledge to gather an overall sound knowledge in this area.

Power electronics & drives Laboratory:

Power electronics & drives laboratory has all the facilities to gather sufficient knowledge .Here students are provided with all the facilities like electronics components, DSO's, Multimeters etc so that students can make their own circuits like control, triggering , power circuits etc requires to perform different experiments to correlate with the theoretical studies. This lab has the major setups like Speed control of 3 phase SRIM using static Kramar drive, DC Motor control using Jons Chopper, Thyristorised drive for 1- HP DC Motor with closed loop control trainer, 3 Phase IGBT based PWM Inverter & V/F control trainer, Closed loop speed control of 3 Phase/0.5 HP Induction using vector controlled method etc.

Scope and Objective of the Course/Laboratory:

Power Electronics (PE) is a branch of engineering which requires the knowledge of Analog/Digital Electronics and Control Systems domain. Nowadays, PE is employed in applications ranging from few Watts residential to several Megawatts industrial systems and processes. PE is the integral part of modern technology. Application of semiconductor switching devices such as Diode, BJT, SCR, MOSFET, IGBT, GTO etc. to convert and control the amplitude and direction of power flow to met the load requirements is the main objective of this course/laboratory. Practical design issues are also covered in laboratory experiments. After successful completion of this laboratory, students will be able to design, simulate, develop and analyze the performance of various power electronic converters including AC/AC Converters, AC/DC Converters, DC/DC Converters & DC/AC Converters.

Softwares/Controllers:

- Power System Computer Aided Design (PSCAD): 3.1 Version
- Electrical Transient and Analysis Program (ETAP)
- Solar PV Emulator

SEMINARS/WORKSHOPS ATTENDED BY FACULTY

No	Name of the Faculty	FDP/SSTP Topic	Duration	College Name
1.	Dr.D. SAM HARISON	FDTP on IC8457 Control System	14 days	Kongunadu College of Engineering and Technology, Trichy
2.	Dr.R.JEEVAJOTHY	FDTP on EE6703 Special Electrical Machines	7 days	St.Xaviers Catholic College of Engineering, Chunkankadai
3.	DR.NABISHA A	FDTP on IC8457 Control System	14 days	Kongunadu College of Engineering and Technology, Trichy
4.	Mr.G.K.JABASH SAMUEL	FDTP on IC8457 Control System	14 days	Kongunadu College of Engineering and Technology, Trichy
5.	Mr.GOPAKUMAR. S	FDTP on EC8691 Microprocessor and Microcontroller	7 days	St.Xaviers Catholic College of Engineering, Chunkankadai
6.	Mr.MURUGAN. G	FDTP on IC8457 Control System	14 days	Kongunadu College of Engineering and Technology, Trichy
7.	Mrs.THANGASAKTHI.T	FDTP on Renewable Energy Systems	7 days	St.Xaviers Catholic College of Engineering, Chunkankadai
8.	Mr.SANJU S	FDTP on Renewable Energy Systems	7 days	St.Xaviers Catholic College of Engineering, Chunkankadai

INDUSTRIAL VISITS:

The department is associated with various government, quasi-government and private industries in the field of Electrical Engineering.

Our students visit these companies to get a practical exposure to current work practices.

The details of the industrial visits are furnished below

Date of Visit	Name of Industry	Scope of Visit
04-1-2019	110/11KV Substation Aralvoimozhi,TNEB	To study about control and instrumentation in grid system and testing of cables
20-8-2018	110/11KV Substation Palavoor TNEB	To practical study of Testing of Circuit breaker

Participation of students in National and International Conferences:

no	Authors	Title	Conference	Venue	Date
1.	VIJIN J	Dual Axis Solar Tracking System	National conference	Dr.Sivanthi Aditanar College of Engineering Tiruchendur	15.02.2019
2.	VINOBHARATH P	Dual Axis Solar Tracking System	National conference	Dr.Sivanthi Aditanar College of Engineering Tiruchendur	15.02.2019
3.	M.V.SORNA SALINI	Smart grid	National conference	Dr.Sivanthi Aditanar College of Engineering Tiruchendur	15.02.2019
4.	P.MANISHA	Design of energy harvesting by stick on sensor for smart grid	National conference	VV College of Engineering	21.02.2019
5.	G.GANGA	Robotics in agriculture	National conference	Dr.Sivanthi Aditanar College of Engineering Tiruchendur	15.02.2019
6.	P.ANANTHA SHIJI	Automated irrigation system on sensing soil moisture content	National conference	Dr.Sivanthi Aditanar College of Engineering Tiruchendur	15.02.2019
7.	DAYANA.R	Automate irrigation system on sensing soil mixture content	National conference	Dr.Sivanthi Aditanar College of Engineering Tiruchendur	15.02.2019
8.	T.SUBHASHINI	Smart grid	National conference	Dr.Sivanthi Aditanar College of Engineering Tiruchendur	15.02.2019

Faculty –Journal Publication

S.No.	Name of the Author	Tittle	Name of the Journal	Volume No,IssueNo,PP& Year
1.	Dr.A.Nabisha	GSM based Patient monitoring System using Sensors	International Journal of Science Technology and Engineering	Volume:5, Issue:10 April 19
2.	Ms.S.Nithiya	GSM based Patient monitoring System using Sensors	International Journal of Science Technology and Engineering	Volume:5, Issue:10 April 19
3.	Mr.S.GopaKumar	Single stage converter for WECS	International Journal of Research And Analytical Reviews	Volume 6, Jan-March 19 E-ISSN 2348-1269, P- ISSN 2349-5138

The students who undergo training/Internships

MuthamilSelva.M	1 Month	SE ELECTRICALS
Sabin Raj.M.B	1 Month	SE ELECTRICALS

PRODUCTS OF THE YEAR

No	Name of the Product	Image of the Product	Description &Application
1.	Conversion of Petrol Bike to Electric Bike		The automobile industry has entered into a new dimension in production of more fuel efficient, low emission vehicles and new technologies. One of the greatest inventions is electric vehicles.
2.	Hybrid solar and wind Turbine		Renewable Energy system is the growing generating area in present century. The characteristic of PV and wind turbine is studied. Study of MPPT algorithm is done.

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LIST OF STUDENTS PLACED IN ACADEMIC YEAR

(BATCH 2015 – 2019)

S.no.	Student Name	Enrollment no.	Company Name	Appointment No
1	ANAND.T	963315105003	Perfect Electronics ltd	PEIPL/TE/19E-17
2.	ANANDHU RAJ V R	963315105004	DS Connectors and Cables India Pvt ltd	DSCACIPL/ET19/E-37
3.	CHARLET P	963315105007	Taiwan Surface Mounting Technology Corp	VS/TSMT/GT19/E131
4	KAVITHA R	963315105014	Elcompo Electronic Industries Private Limited	ELCO/ET19/E-67
5	NANTHINI T	963315105016	iled lighting systems pvt ltd	ILEDLS/ET19/E-23
6	RENUKA DEVI S	963315105025	Taiwan Surface Mounting Technology Corp	VS/TSMT/GT19/E134
7	SANTHIYA J	963315105026	Perfect Electronics ltd	PEIPL/TE/19E-21
8	VEGIN.M	963315105036	DS Connectors and Cables India Pvt ltd	DSCACIPL/ET19/E-39

9	VINO BHARATH P	963315105038	Elcompo Electronic Industries Private Limited	ELCO/ET19/E-69
10	VISHNU S	963315105039	BESTON Industries	BIA/TE19/2-21
11	AJIN.M	963315105301	iled lighting systems pvt ltd	ILEDLS/ET19/E-25
12	AJITH.R	963315105302	Elcompo Electronic Industries Private Limited	ELCO/ET19/E-71
13	ARUN JOTHI. K	963315105303	DS Connectors and Cables India Pvt ltd	DSCACIPL/ET19/E-39
14	BREEZE	963315105304	Taiwan Surface Mounting Technology Corp	VS/TSMT/GT19/E137
15	JENIFER. D	963315105308	iled lighting systems pvt ltd	ILEDLS/ET19/E-28
16	JIMSONCARDOZ	963315105309	BESTON Industries	BIA/TE19/2-23
17	NAVIN KUMAR.M	963315105313	Perfect Electronics ltd	PEIPL/TE/19E-24

TECHNICAL CORNER

A Two day National Level Technical Symposium

"ELECYUVA '19"

National Level Technical Symposium "ELECYUVA '19" organized by department of Electrical and Electronics Engineering on March 17th &18th 2019. Er. E. David Jeba Singh., B.E, Superintending Engineer, TANGEDCO was the Chief guest for the National Level Technical Symposium. He motivated the young participants and delivered the importance of Usage of Electricity and Carrier opportunities in Electrical Field.Hema of 3rd Year EEE delivered Welcome Address and Dr. R. Rajesh, Principal of Rohini College of Engineering and Technology delivered the Felicitation address and pointed out the importance of organizing such symposiums where focus is on the achievements of budding researchers and thanked all the participants for the enthusiasm. Symposium proceedings were released by the dignitaries and Finally, Vote of thanks given by Stephy of 3rd Year EEE.

After small refreshment, all the technical and non technical events were organized in the EEEdepartment. There was a great response from various engineering college for the symposium. More than 100 students from various other institution participated in the technical and non-technical events. The Technical Events, Paper Presentation, Technical Quiz, Dumb-C, Connections, Photography Event were conducted in the symposium.

The Head of the department of Electrical and Electronics Engineering and Assistant Professors and all the faculty members of department of EEE coordinated the symposium. Totally 70 no's of papers were presented in the symposium by the students from the various institutions. The closing ceremony of the symposium was graced by the presence of all the EEE faculty members. Winners under all the categories were felicitated during the closing ceremony. The function was ended by thanking the Management, Principal, and HOD, Faculties, Non-teaching staff, our sponsors and all student coordinators who worked to make this event a grand success.

A Two days International Conference On
ADVANCED INNOVATION INENGINEERING AND TECHNOLOGY

Department of Electrical And Electronics Engineering organized International Conference on Advanced Innovation In Engineering And Technology to empower the student community and research scholars in the field of Electrical and Electronics Engineering. The Board of Directors, Chief Guests and Dept. Heads and Faculty members presided over the function which was followed by lamp lightning session. The gathering was welcomed by Latha, Student of 3rd EEE, Principal delivered the felicitation address which ignited the spark of learning about recent technologies. CD on the proceedings of the ICRICC'19 was released in the presence of the dignitaries Chief Guest Er. R.S.Sawant - Superintendent / NPCL and Prof. Jean Luc Murarimano, Ruwando, the Principal, the Heads of various Departments.

The Conference had two sessions spread over the day with expert's key note addresses and interactive discussions. More than 30 participants from various Universities and Institutions across the country have been selected to register and presented papers in the Conference. The experts and the resource persons were invited who have sound knowledge in the field of Advanced Innovation in Engineering and Technology. Prof. Jean Luc Murarimano, Ruwando released a book of abstract, comprising of the papers presented during the International Conference. Valedictory function started at 3.15 pm.Prizes for winners and Participation certificates were distributed to students of different colleges.Certificates and Awards were given to winners. The vote of thanks was delivered by Rekha, 2nd year Student of EEE. On behalf of the hosting department, she extended her gratitude to the College.

PAPER CLIPPINGS

Modern Technologies Demand The Highest Level If Education

- SCHOLARSHIPS
- CAMPUS INTERVIEWS
- RAGGING FREE CAMPUS
- SPORTS QUOTA
- WIFI CAMPUS
- 100% PLACEMENT ASSISTANCE
- FEE CONCESSION FOR MERITORIOUS STUDENTS
- SITUATED ON THE MAIN ROAD

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UG COURSES
- BE-Civil Engineering
- BE-Computer Science And Engineering
- BE-Electronics And Communication Engineering
- BE-Electrical And Electronics Engineering
- BE-Mechanical Engineering

PG COURSES
- ME-Communication Systems
- ME-Computer Science And Engineering
- ME-Thermal Engineering
- ME-Construction Engineering And Management

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