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COLLEGE

Vision of the Institute

To be one of the nation's premier Institutions for Technical and Management Education and a key contributor for Technological and Socio-economic Development of the Nation.

Mission of the Institute

To produce technically competent Engineers and Managers by maintaining high academic standards, world class infrastructure and core instructions.

To enhance innovative skills and multi disciplinary approach of students through well experienced faculty and industry interactions.

To inculcate global perspective and attitude of students to face real world challenges by developing leadership qualities, lifelong learning abilities and ethical values.

EEE Department

Vision of the Department

To impart knowledge in the field of Electrical and Electronics Engineering to meet the technical challenges of industry and society with strong innovative skills, leadership qualities and ethics.

Mission of the Department

To provide standard training and effective teaching learning process to the students by using the state-of-the-art laboratories, core instruction and efficient faculty.

To enhance competent, innovative and technical skills amongst the students through training programs by industry and external participation.

To inculcate leadership qualities, ethical values and lifelong learning skills in learners to serve the society and nation for overall development through value based education.

Program Educational Objectives (PEOs)

Programme Educational Objectives (PEOs) of B.Tech (Electrical and Electronics Engineering) program are: Within few years of graduation, the graduates will

PEO-1: To solve composite problems using mathematics, basic sciences and engineering principles in the domains of testing, design and manufacturing.

PEO-2: To achieve higher positions in their profession by demonstrating leadership qualities, research and innovative abilities.

PEO-3: To contribute in the field of Electrical and Electronics Engineering to finding solutions for societal problems through their lifelong learning skills and ethical values.

Program Outcomes (POs)

PO-1 : Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO-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.

PO-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.

PO-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.

PO-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.

PO-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.

PO-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.

PO-8 : Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO-9 : Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-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.

PO-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.

PO-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.

PSOs of the Department

On completion of the B.Tech. (Electrical and Electronics Engineering) degree, the graduates will be able to

PSO-1: Provide alternate solutions to address the problems with specific requirements in the field of Electrical and Electronics Engineering.

PSO-2: be ready to work professionally in relevant industries like power systems, control systems and software industries.

Awareness Program on Core Opportunities

A one-day seminar an "Awareness Program on Core Opportunities" was organized by Electrical and Electronics Engineering department, at the Edison Auditorium, Narayana Engineering College, Nellore on 31st January, 2020. Dr. G.Venkateswarlu, HOD, Dept.of EEE, has introduced today's speaker Sri K. Suresh.S Deputy Executive Engineer to participants of this programme . Total 117 members of Students participated in this programme. This programme was co-ordinate with the help of 4 Faculty members, The Program was covered by Sri K. Suresh.S Deputy Executive Engineer, who has presented a brief review on Core opportunities. Topics covered are given below:

- How to Prepare Electrical jobs
- Topics for core opportunities for electrical Engineering
- Size, select & Specify power , control & instrumentation cables

Before concluding, let our Head of the Department Dr G.Venkateswarlu express his sincere gratitude and appreciation to the Speaker Sri K.Suresh, Deputy Executive Engineer, APGENCO, Nelaturu, Muthukuru who have raised this occasion with their presence here today. Students are also satisfied in this Program.



An Awareness Program on Corona Virus

Department of ECE in association with Pinakini Youth Welfare Association & NSS UNIT of Narayana Engineering College, Nellore organized an Awareness program on Corona Virus on 17/03/2020. Dr.G.Sobha Rani, M.D General Medicine, ACSR GGH & Dr. Sudharshi, M.D General Medicine, ACSR GGH are the resource persons of the programme. The programme was inaugurated by Dr. K. Murali, HOD – ECE and addressed the gathering regarding ongoing outbreak of COVID-19. This was followed by introduction to COVID-19 by Dr.G.Sobha Rani, M.D General Medicine, ACSR GGH & Dr. Sudharshi, M.D General Medicine, ACSR GGH. They mentioned special note on “Social distancing” and how effective it can be in controlling the spread.

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The resource persons shared their knowledge about the Corona Virus, Safety measures to prevent from virus, Symptoms of Corona Virus and how the virus is spreading among people. They also clearly insisted Regular Hand wash, use of protective mask, regular disinfection, use of sanitizers, social distancing and explained the ways to improve our immunity of body and food style which could prevent from viral infections.

All the students and faculty members participated in the programme and got exposure about the corona virus, and cleared their entire doubts by interacting with the connoisseurs. The program ended with a Q&A session where the students the following queries:

What is isolation? Purpose and usage of masks
 Procedure of seeking medical help when one is infected by the virus
 Who / which age group is prone to get infected?
 Is the virus curable? What does cure mean?



A Two days National work shop on Transformer differential protection and numerical protection relay testing and commissioning

The Department of Electrical and Electronics Engineering had organized A Two days National work shop on Transformer differential protection and numerical protection relay testing and commissioning in association with IIC Cell. The Resource person of the Technical Talk was SK. Amenuddin, Field operation Manager, ETCAM Institute of EEE Engineers, TCCGES Pvt.Ltd. Nellore. Around 79 students from the Department of Electrical and Electronics Engineering attended this Two days National workshop.

On the first day speaker was started with the Introduction of the importance of EEE courses in colleges and availability of job opportunities in power sectors, importance of protection of electrical system. Types of Protection.

Types of Current transformers, Current transformers configuration for protection, minimum testing procedures of Current transformers. Protection of domestic transformers, later construction of protection relay, difference between electromechanical and numerical relays. Components layout. Implementation of protection relays in electrical circuits, introduction o/c, e/f, protection, introduction of Transformer differential protection and its working principle. Safety measures during testing and commissioning of the relay. In the afternoon section Introduction of different characteristics (including IDMT)of o/c, e/f protection of switch gear, calculation of parameters of over current and earth fault, operating procedures of numerical protection relays, uploading calculated settings into the relay. Operation instructions of RELAY TEST KIT, Testing procedures of relays, upload the settings in relays. End of the 1st day we assign home work problem on the given topic, students need to calculate settings and bring back.

In the second day of the programme the speaker divided all students will be divided into groups. Given home work problem calculations called as 'settings' will be verified and uploaded in to relay by the student under supervision of our staff. Explanation of the testing procedures of Relays. Explanation of 'safety procedure' during relay testing. Students started the relay testing. Obtained test results will be verified with calculated results. Thus every student will test relay which is a practical experience in real field. A test format will be given to every student to note the obtained and calculated results and will be signed by student and our staff. Therefore the section was ended with certificate distributions to the students.



Industrial Visit (NIPPO)

On 24/02/2020 EEE II B.Tech students got permission to visit "Nippo Factory" under the guidance of our department. In the factory students observed the process of battery manufacturing. We started from the college 8.15am college bus and we reached our destination at 10.30am. After reaching the factory.

professional people in factory explained the components and their working. Also they showed the latest technology equipments and its fast working process. Such industrial visits organized by Narayana Engineering College helps the students to enhance their practical knowledge on industrial sites.



A Guest lecturer on career guide lines about Group preparation and Gate Exams

The Guest Lecture was organized on 14th February 2020 at 10:30 am in Faraday's Block by Mr.M. Giri Prasad. The main Moto to organize this lecturer to create awareness and preparation regarding GATE Exams at respective departments, its importance in getting a good college for pursuing masters and also for getting a secured Job in PSU(s). Total of 40 students from 2nd year in association with IIC Cell.

The Resource person of the guest lecturer was Mr. M.Giri Prasad 2010 passed out student. He was selected for a Group 2 Officer in a public service commissioning which was conducted by a APPSC 2019.

Industrial Visit (ISRO SHAR CENTER)

On 1/03/2020 EEE III B.Tech students got permission to visit "SHAR CENTER" under the guidance of our department. We started from the college 7.15am college bus and we reached our destination at 9.15am. After reaching their Asst. Scientists explained and showed the video of launching the rockets. The professional people explained the components and their working during Launching. Finally we visited space Museum.

Such Industrial visits organized by Narayana engineering college helps the students to enhance their practical knowledge on industrial sites.



Partial Delivery by Industry Expert

Sl. No.	Year / Semester	Course Name	Unit / Module Delivered	Expert Name	Date(s) of Lecture Delivery
1	II/II	Electrical Power Generating Systems	Unit V - Economic Aspects of Power Generation	Mr. Palanisamy M, General Manager, (Power System Business Unit), Cummins India Limited, Balewadi, Pune	20.04.2020 & 21.04.2020

STUDENTS ACHIEVEMENTS

Academic year: 2019-20

- **M.Susmitha** of III B.Tech EEE Secured **First Prize** in “**Circuit Work Sheet Chalange**” organized by Narayana Engineering College, Guduru on 13-03-2020.
- **L.Vamsi Krishna** of II B.Tech EEE Secured **Second Prize** in “**Paper Presentation**” on 13-03- 2020 organize by Narayana Engineering College, Gudur.
- **Sk.Abdul Mohiddin, Sk.Safiullah** of IV B.Tech EEE secured **Third Prize** in “**Project Expo**” organized by Narayana Engineering College, Gudur on 13-03-2020.
- **Ch.Krishna Teja, M.Sruthi Hasini** of III & II B.Tech EEE Secured **Second Prize** in “**Electrical Quiz**” on 13-03- 2020 organized by Narayana Engineering College, Gudur.
- **M. Sruthi Hasini** of II B.Tech EEE secured **Second Prize** in “**Technical Quiz**” organized by PBR VITS, Kavali, Nellore on 15-02-2020.
- **M. Sruthi Hasini** of II B.Tech EEE secured **Third Prize** in “ **Paper Presentation** ” organized by PBR VITS, Kavali, Nellore on 15-02-2020.
- **R.Sai Supriya, R.Srilatha & Y. Mounika** of III B.Tech EEE Secured **Second Prize** in “**Poster Presentation**” organized by N.B.K.R Institute of Science & Technology, Vidyanagar, Nellore on 20-09-2019.



- **C.Azeeth** of III B.Tech EEE secured **Second Prize** in “ **Quiz** ” organized by IITM,Nellore on 27-09-2019.

RESEARCH PAPERS - JOURNALS

S.No	Academic Year	Department of the Faculty	Name of the Author(s)	Title of paper	Name of journal
1	2020-21	EEE	Dr.Akhib Khan Bahamani, Ms A. Depika and Ms.L.Lahari	HV Transformer differential protection using micro controller MIC AVR 2560	wesleyan Journal of Research
2	2020-21	EEE	Mr.K.V.Kishore, Ms.N. Lahari and Ms.D.Ramya Kumari	Design and analysis of digital power factor meter	wesleyan Journal of Research
3	2020-21	EEE	Mr.A. Prasad, Ms.V.Pravallika and Ms.T.Priyanka	Three phase power failure monitoring with SMS alerts by using IOT	wesleyan Journal of Research
4	2020-21	EEE	Mr.K.Kumar, MS.N.Nandini and Ms.B.Priyanka	Speed and bidirectional rotation control of a DC Motor	wesleyan Journal of Research
5	2020-21	EEE	Dr.G.Venkateswarlu, Mr.T.Srinadh and Mr.Y.Rakesh	Design and development of power train and capacitive charging for electric vehicle	wesleyan Journal of Research
6	2020-21	EEE	Dr.Akhib Khan Bahamani, Mr.P.Ramakrishna and Mr.P.Yeswanth	Feeder protection from overload and earth fault relay	wesleyan Journal of Research
7	2020-21	EEE	Dr.G.Srinivasulu Reddy, Ms.J.Keerthana and Ms R.Sai Supriya	Intelligent face mask and body temperature detection system	wesleyan Journal of Research
8	2020-21	EEE	Dr.G.Venkateswarlu, Mr.Kranthi Kumar and Mr.Pushpeshwar Rao	IOT Based Speed control of single phase Induction motor	wesleyan Journal of Research
9	2020-21	EEE	Mrs.M.Suneetha, Ms.D.Padmini and Ms.G.Bhavyasri	Power Transformer monitoring and cooling control system using GSM	wesleyan Journal of Research
10	2020-21	EEE	Mrs.M.Suneetha, Ms.M.Jyoshna and Ms.S.Maneesha	Transformer multiple fault detection using micro controller based IOT	wesleyan Journal of Research
11	2020-21	EEE	Mr.K.Kumar,Ms.Rajasri et al.	Hi Tech energy meter with automation load control and sharing using smart technology	Journal of the Maharaja Sayajirao University of Baroda
12	2020-21	EEE	Mrs.N.Shanthi Kumari, Mr.SD Arfathh Ahmed et al.	Bidirectional rotation of an Induction motor with a remote control device	Journal of the Maharaja Sayajirao University of Baroda
13	2020-21	EEE	Mr.K.Kumar, Mr. S. Prasanna Kumar et al.	Solar Powered aquaculture automation using IOT	Journal of the Maharaja Sayajirao University of Baroda
14	2020-21	EEE	Mr.A. Prasad, Ms.M.Susmitha et al.	PC Based electrical load control using IOT	Journal of the Maharaja Sayajirao University of Baroda
15	2020-21	EEE	Mr.TV subba Rao,Mr.B SVMS Pawan kalyan	Arduino based power factor compensation	Journal of the Maharaja Sayajirao University of Baroda
16	2020-21	EEE	Mr.ANVK Naveen and Ms Y Hemani Prasanna et al.	Speed Control Of BLDC Motor Using Arduino	Journal of the Maharaja Sayajirao University of Baroda
17	2020-21	EEE	Dr.Akhib Khan Bahamani, Ms.B.Nagapavani et al.	Phase over current protection for transformer using micro controller based on definite time	Journal of the Maharaja Sayajirao University of Baroda
18	2020-21	EEE	Ms.L.Nagalakshmi, V.Lakshmi sahithi et al.	IOT Based stepper motor control using Arduino	Journal of the Maharaja Sayajirao University of Baroda
19	2020-21	EEE	Mr.K.V.Kishore, Mr.N.Madavasai et al.	PLC based automation of bottle manufacturing filling capping and labeling process	Journal of the Maharaja Sayajirao University of Baroda
20	2020-21	EEE	Dr.Akhib Khan Bahamani, Dr.G. srinivasulu and Dr.G Venkateswarlu	Power quality improvement in nine bus by employing multi level inverter based DPFC	The International journal of analytical and experimental modal analysis

21	2020-21	EEE	Mr.K.Kumar,Mr.Abid Ali and Mr.M.Gridhar	GSM Based electricity theft detection using Arduino	Science, Technology and Development
22	2020-21	EEE	Dr.G.srinivasulu Reddy, Mr.G.Vikhas reddy and Mr.Abdul Mohiddin	Concept design and analysis multi purpose farm equipment	Science, Technology and Development
23	2020-21	EEE	Mr.A. Prasad,Mr.Sk.Javeed and Mr.Prudhvi Teja	wireless transformer parameters monitoring system using IOT	Science, Technology and Development
24	2020-21	EEE	Dr.G.Venkateswarlu Ms.BN.Mamatha and Ms.R.Iswarya Yadav	Remote controlled and solar powered plant watering system	Science, Technology and Development
25	2020-21	EEE	Dr.Akhib Khan Bahamani,Mr.VV Subba Reddy and Mr. Shaik Farook	Differential Current Protection of Bus bar Using Micro Control Chip	Science, Technology and Development
26	2020-21	EEE	Mrs.M.Suneetha, Mr. SK.Safullah and Mr.V.Sai Krishna	smart conyrol of electrical appliances through IOT using renewable energy sources	Science, Technology and Development
27	2020-21	EEE	Mr.U.Naresh babu, Mr V.ChandraSekhar,Mr.Shaik.Thouhid and Mr.CH.Praveen	GSM Based monitoring and speed control of Induction motor with PWM Technique	Science, Technology and Development
28	2020-21	EEE	Mr.Kumar.K,Ms.Mounika and Ms.Nivalikha	foot step power generation and optimization for street light system	Science, Technology and Development
29	2020-21	EEE	Mrs. N. Santhi Kumari Mr. B.Yagnya Narendra and Mr.K. Kamal nath	A new concept of intelligent hybrid inverter for battery charging	Science, Technology and Development
30	2020-21	EEE	Ms.Kavya sree,Ms.Sreya and Ms.susmitha	Automatic controlled power switch	Journal of interdisciplinary cycle research
31	2020-21	EEE	Mrs.M.Suneetha, Mr.B.Surya Krishna and Mr.A.pawan Kalyan	Arduino based RTC controlled automatic solar panel cleaning mechanism	Journal of interdisciplinary cycle research
32	2020-21	EEE	Dr.Akhib Khan Bahamani, Ms.thanmai and Ms.k.sai sree	Design and development of a micro computer based feeder protection and monitoring system	Journal of interdisciplinary cycle research
33	2020-21	EEE	Dr.G.Venkateswarlu, Ms.sucharitha and Ms.Padmaleela	UG cable fault distance locator	Journal of interdisciplinary cycle research
34	2020-21	EEE	Mr.TV subba Rao,Mr.G.Gajendra and Mr. Vamsi Krishna G	RTC based load shedding using arduino	Journal of interdisciplinary cycle research
35	2020-21	EEE	Mr.ANVK Naveen and Ms Lasya Priya	prototype model on detection of power grid synchronization failure on sending frequency and volatge	Journal of interdisciplinary cycle research
36	2020-21	EEE	Mr.K.V Kishore, Mr.N.Anil Kumar,Mr.D.Pawan	Auto power supply control from hybrid sources	Journal of interdisciplinary cycle research
37	2020-21	EEE	Mr.M.Sasi Kumar, Mr.K.Naveen and Mr.N.Vasu	IOT based monitoring and controlling of an induction motor	Journal of interdisciplinary cycle research
38	2020-21	EEE	Ms.L.Nagalakshmi,N.Harshavardhan	overcurrent and volatge protection of distribution line using GSM and arduino	Journal of interdisciplinary cycle research