

PRAGATI ENGINEERING COLLEGE

ELECTRICAL TIMES

VOL # 18

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ABOUT THE DEPARTMENT:

The **Electrical and Electronics Engineering** Department of **Pragati Engineering College** is fully Equipped with state of art laboratories' and its faculties consists of highly experienced professors, well qualified associate professors and dynamic assistant professors with commitment to give the young minds the very best they deserve.

Vision of the Institute:

“To emerge as a Premier Institution for Technical Education in the Country through Academic Excellence and to be recognized as a Centre for Excellence in Research & Development, catering to the needs of our Country.”

Mission of the Institute:

“To realize a strong Institution by consistently maintaining State-of-art-infrastructure and building a cohesive, World Class Team and provide need based Technical Education, Research and Development through enhanced Industry Interaction.”

Vision of the Department:

“To excel in Engineering Education and Research, inculcating professional and social ethics among the students through academic excellence in the field of Electrical & Electronics Engineering.”

Mission of the Department:

M1: To impart quality Technical Education with better infrastructure for students to make them globally competent and technically strong.

M2: To collaborate with industries and academic institutions to enhance creativity and innovation with professional and ethical values.

M3: To motivate faculty and students to do impactful research on societal needs and to build team work among them.

Program Educational Objectives (PEOs):

PEO1

To produce graduates with a strong foundation in the Basic Sciences, Mathematics, Computing and core knowledge in Electrical and Electronics Engineering through high quality Technical Education.

PEO2

To prepare graduates for successful and productive engineering careers, with emphasis on technical competency and with an attention to serve the needs of core and associated sectors by developing novel products and solutions for the real-time problems in a socio-economic way.

PEO3

To inculcate ethical attitude, honing effective communication skills and managerial skills to work in a multidisciplinary environment as a technocrat/administrator/entrepreneur and to acquire the knowledge for pursuing advanced degrees in Engineering, Science, Management, Research and Development.

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, 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)

Engineering Students will be able to:

PSO1: Apply the concepts of Power Systems, Power Electronics and utilization of Renewable Energy in implementation of interdisciplinary projects.

PSO2: Acquire the knowledge of Electrical and Electronics Engineering to participate in national and international competitive examinations for successful higher studies and employment.

ABOUT THE ELECTRICAL ASSOCIATION:

Association of ISTE is organizing national level technical event "EXULT". The national level technical symposium has events like paper presentations, quiz competitions, project model displays and poster presentations from various engineering colleges. We have been organizing "EXULT" from last decades. Eminent personalities from various colleges and Universities are invited to act as Judges and made it a grand success.

The main aim of this symposium is to highlight the current status and emerging trends of technology in various topics towards the betterment of industrial research and IT fields. It will be a great opportunity for students to exchange their experiences through innovative ideas and make them acquired with latest technological trends.

LIST OF FACULTY MEMBERS:

- | | |
|----------------------------------|----------------------------------------|
| 1. Dr. A.Kailasa Rao, (Director) | M.Tech, Ph.D, FIE |
| 2. Dr. K.Sathyanarayana (H.O.D) | M.Tech, Ph.D, MIE, MIEEE, MISTE, C Eng |
| 3. Dr. P. Naga Raju | M.Tech, Ph. D |
| 4. Dr.G.Madhu Sudhana Rao | M.Tech, Ph. D |
| 5. Sri. G.Naresh | M.Tech, Ph.D, MIEEE, MISTE |
| 6. Ms.P.Vijaya Prasuna | M.Tech |
| 7. Mr. S M Shariff | M.Tech, M.B.A, MISTE |
| 8. Mr.M.Balaji | M.Tech |
| 9. Ms.Ch.Manga Lakshmi | M.Tech |
| 10. Mr. I. Murali Krishna | M.Tech |
| 11. Mr.I.Srinu | M.Tech |
| 12. Mr. S. V. V. S. K. Reddy | M.Tech |
| 13. Mr.D.Krishna Chaitanya | M.Tech |
| 14. Mrs.G.Durga Devi | M.Tech |
| 15. Mr.S.Ashok Reddy | M.Tech |
| 16. Mr.N.Sunil Kumar | M.Tech |
| 17. Mrs. T. Himaja | M.Tech |
| 18. Mr.I.Prudhvi Kumar Raju | M.Tech |
| 19. Ms. P.Surekha | M.Tech |
| 20. Ms. T. Pravallika | M.Tech |
| 21. Mr. P. Sailesh Babu | M.Tech |
| 22. Mr. P. Anantha Chaitanya | M.Tech |
| 23. Ms.M.S.S.S.Anusha | M.Tech |
| 24. Mr. A.P.J. Varma | M.Tech |
| 25. Mr.B.Ramesh | M.Tech |
| 26. Mr. S. P. R. Swami | M.Tech |
| 27. Mr.M.Raji Rahul | M.Tech |

Faculty Achievements:



Sri G.Naresh, Associate Professor of EEE obtained **Doctorate in Philosophy (Ph.D)** in the faculty of Electrical & Electronics Engineering for the thesis “**Design of PSS and TCSC for Multi-machine Power Systems Employing Various Metaheuristic Techniques**”. He received Ph.D. degree from JNTUK Kakinada in

the 5th Convocation of JNTUK, Kakinada held on 21st November, 2015.

Faculty Publications:

1. Sri. K Dhanaraj, Sri. I Srinu and Dr.K Satyanarayana published paper on “**Performance Improvement of fuzzy PID Controller Based process control system**” in International Journal of engineering and Advanced Technology (IJEAT) at Volume-6 August 2015 pp 286 to291 ISSN 2249-8958
2. Sri. M Balakrishna Naik, Sri. I Murali krishna and Dr. K Satyanarayana published paper on “**Performance Analysis of D-STATCOM with Consideration of power factor Correction**” in International Journal Scientific & Engineering Research(IJSER), at Volume 6, Issue 8, August 2015 pp 1787 to 1791 ISSN 2249-5518
3. Sri. B Pradeep rajavardan and Mrs. P Vijayaprasuna published paper on “**Analysis and Design of Interleaved Boost converter for Improvement of THD and Input power factor in Rectifiers**” in International Journal Science Engineering and Technology Research (IJSETR), at Volume 4, Issue 37, September 2015 pp 7930 to 7937 ISSN 2319-8885.
4. Mr. M Veerachandra kumar, M.Sridhar Bhatlu, K.V.B.G.S.S.Datta, S.Adivishnu published paper on “**Bidirectional Speed Control Of DC Motor Using GSM**” in International Journal of Engineering research Online (IJERO) , on September 2015 Volume-3 Issue-5 ISSN 2321-7758.
5. Ms. M Mangalakshmi, G D Sai ram vihari, and T Venkata parasuram, published paper on “**Analysis Of Seven Level Asymmetric Cascaded H-Bridge Inverter**” in International Journal of Science Engineering and Advance Technology(IJSEAT) , on September 2015 Volume-3 Issue-9 ISSN 2321-6905
6. Mr. G. Bhavanarayana, Chavvakula Swamy, Ganta Mounika, yedlapalli netaji, and Sundru Sri durga published paper on “**Analysis and hardware implementation of five level cascaded H Bridge inverter**” in International Journal of Engineering Research and Applications (IJERA) , on October 2015 Volume-5 Issue-10 ISSN 2248-9622
7. I. Srinu, B.Satish, M.V.V.Krishna Teja T.Srikanth “**Modeling and Simulation for Voltage Sags/Swells Mitigation Using Dynamic Voltage Restorer (DVR)**” Published in **International Journal of Scientific Research** Volume: 4 | Issue: 10 | October 2015 • ISSN No 2277 - 8179.
8. Dr. G Naresh, Dr. M Ramalinga raju and Dr. SVL Narasimham published paper on “**Coordinate design of power system stabilizers and TCSC employing improved harmony search algorithm**” in Swarm and Evolutionary Computation , on 03 November 2015 ISSN 2210-6502.
9. Mr. P.N Surrendra, K Srinivas, A padmaraju, T saisaran and Mr. I Srinu published paper on “**Fault Detection Using Instantaneous Three phase Power Based Function for Transmission Line protection**” in International Journal of Scientific research (IJSR) , on November 2015 Volume-4 Issue-11 ISSN 2277-8179.
10. Ms. P.Sukrutha, Ms. KTS Meghana, Mr. N Arunkumar, and Mr. P Sailesh Babu published paper on “**Design and simulation of Dynamic Voltage Retorer (DVR) Using sinusoidal Pulse width Modulation(SPWM)**” in International Journal of Scientific research (IJSR) , on November 2015 Volume-4 Issue-11 ISSN 2277-8179.
11. Mr. B Sivaganesh, Ms. K Sneha , Ms. YSSS Rajeswari and Mr. P Sailesh Babu published paper on “**High frequency step-up DC-DC Converter with High efficiency for high power application and principle of its control**” in International Journal of Scientific research (IJSR) , on November 2015 Volume-4 Issue-11 ISSN 2277-8179.
12. G.Naresh, M.Ramalinga Raju, S.V.L.Narasimham “**Coordinated design of power system stabilizers and TCSC employing improved harmony search algorithm**”

accepted for publication in International Journal of Swarm and Evolutionary Computation, Elsevier Publishers.

13. Ms. A. Durga Bhavani, Mrs. G. Durga Devi, Dr. K. Satyanarayana, published paper on “ An improved speed and torque performance of ANFIS based direct torque controlled induction motor drive” in International Journal of Scientific & Engineering Research, Volume 6, Issue 12, December-2015 pp no. 323-327.
14. K. Rani Hepsiba, S. M. Shariff, P. Saileshbabu, published paper on “ Analysis of UPQC under Unbalanced and Distorted Load conditions using Synchronous Reference Frame Method” in International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-5 Issue-2, December 2015 pp no.84-91.
15. N. A. Madhuri, K. Arun Kumar, Ch. V. V. Manga Lakshmi, published paper on “Performance Improvement of IUPQC in Distribution System under Abnormal Conditions Using PID” in International Journal of Science Engineering and Advance Technology, IJSEAT, Vol. 3, Issue 12 pp.no. 1335-1341.

FDP's and Workshops attended by faculty members:

S.No.	Date	Resource Person	Topic	No of Faculty Attended
1.	06.10.2015	Prof. Chetankumar Patel, RK University.	All about Sketcher Module:Creo 3.0	7
2.	08.10.2015	E.Lakshmi Lydia, CSE Associate Prof. Vignan's institute of information technology, India.	Experimental Advent of big data analystics through Hadoop advance MapReduce	9
3.	13.10.2015	E.Lakshmi Lydia, CSE Associate Prof. Vignan's institute of information technology,India.	Experimental Manifestation of big data analystics through Hadoop advance MapReduce	6
4.	15.10.2015	Dr.Radhika Devi Dept.of S&H MLR institute of technology Hyderabad.	Six C's for effective teaching	10
5.	28.10.2015	Dr. V. Thanikachalam	Instructional Design for Problem based learning in Engineering	16
6.	28.10.2015	Dr. Vijay Kanabar, Director of PM Programs and Associate Professor at Boston University, Boston USA	Project Management: Knowledge, Curriculum, Design and Skill Development	16
7.	29.10.2015	Dr. V. S. Satyanarayana, Built and Natural Environment Department, CaledonianCollege of Engineering, Muscat, Oman	The need for a transformation in Engineering Education in India	16
8.	24.11.2015	Sri. Monohar Joshi, Vice President, IonIdea Inc.	IonCUDOS-Software Platform for OBE from IonIdea:Session-1	16
9.	26.11.2015	Sri. Monohar Joshi, Vice President, IonIdea Inc.	IonCUDOS-Software Platform for OBE from	16

			IonIdea:Session-2	
10.	27.11.2015	Sri. Ratna Kumar Bikkani, Founder, uLektz, Managing partner and CEO-AEL Data Services LLP	Flipped Classroom pedagogy for engineering studies	16
11.	02.12.2015	Dr. Pradeep Waychal, Director NMIMS university, Shirpur	Innovating final year(capstone)projects in engineering education	16
12.	03.12.2015	Abhidram G. Ranade, Professor – Department of Computer Science and Engineering, Indian Institute of Technology, Powai, Mumbai.	An approach to Introductory programming	15
13.	08.12.2015	Dr. Gopal Nadkarni, Dr. Pradeep Waychal, Prof. Ashok Ranade Er. Prakash Bapat	Introduction to the Track – Fostering Innovative Entrepreneurship	17
14.	09.12.2015	Shreeshail M.L, Department of Mechanical Engineering, B.V. Bhoomaraddi College of Engineering and Technology, Hubli, Karnataka	The Out of Classroom Learning of Machine Drawing	15
15.	15.12.2015	Dr. Hemlata Gaikwad, Assistant Professor & Academic Coordinator, Master of Business Administration, Rajarambapu Institute of Technology Rajaramnagar, Maharashtra, India	Self- Efficacy in undergraduate women in engineering-A Case Study	10
16.	17.12.2015	Nitin Kulkarni, Ashok Shettar Madhusudhan V. Atre- KLE Technological University, Hubli.	Integrating Entrepreneurial Ecosystem into Engineering Education: Driving Regional Economy in Tier-2 Cities	15
17.	22.12.2015	Sri. Ciji Peral Kurian, Professor of E&E Department, M.I.T. Manipal.	Outcome Based Assessment: A Case Study on undergraduate course on Control Systems	18
18.	30.12.2015	A. Satish (IRSE)	Career Planning	10

- **Mr. I.Srinu**, Asst. Prof. of EEE Dept, has attended one week faculty development programme on “**Emerging trends in research areas of electrical engineering**” at Gudlavalleru Engineering College from 07.12.2015 to 11.12.2015.

Student Achievements in various activities:

1. B.Srujana (14A31A0204), student of II-A year EEE, has presented a poster and won the **2nd prize** in VEDA on 18.09.2015 & 19.09.2015 held at Aditya Engineering College.
2. A.Sireesha(14A31A0202) student of II-A year EEE, has Presented a poster and won the **2nd prize** in VEDA on 18.09.2015 & 19.09.2015 held at Aditya Engineering college.

Placements:**TCS**B. PRATHYUSHA
12A31A0202CH. SOWBHAGYA VALI
12A31A0203SAI PRAGNYA. C
12A31A0212V. RENUKA SWATHI
12A31A0213K.V.B. DATTA
12A31A0235K. NAVEEN
12A31A0237M. SATISH
12A31A0242A. DEVI
12A31A0261K. APARNA
12A31A0264M. DIVYA
12A31A0266K. PRASANNA
12A31A0272M. ABHISHEK
12A31A0295**Tech Mahindra**K. SNEHA
12A31A0208V. SIREESHMA
12A31A0214B. SATISH
12A31A0217K. MANOJ SKANDHA
12A31A0293**List Of Students Attended For Industrial Internship/Training:**

S.No	Roll no.	Name of the student	Year & section	Name of the industry	Duration
1.	12A31A0209 12A31A0211 12A31A0213 12A31A0214 12A31A0216	M. Reena P.G.V.N.Lakshmi V.RenukaSwathi V.Sireeshma Y. S.S.S.Rajeswari	IV EEE-A	Visakhapatnam steel plant	06.07.2015 to 19.07.2015
2.	13A31A0256 13A31A0257 13A31A0263 13A31A0268 13A31A0269	C. Vijaya G.SravyaLekha P. Raja Sneha T.Sowmya Ch.Sukanya Devi	III EEE-B	Spectrum power plant, Uppada	15.07.2015 to 17.7.2015

3.	13A31A0271 13A31A0274 13A31A0276 13A31A0294 13A31A02A0 13A31A02A3	A.V.V.Rama Krishna Ch.Aravind Siva Sai D.Venu Satya Madhav M.V.Sara Vinod Baba P.N.N.Bhargav S.Tej Kumar	III EEE-B	Visakhapatnam steel plant	13.07.2015 to 25.07.2015
4.	13A31A0225 13A31A0233 13A31A0234 13A31A0241 13A31A0243 13A31A0245 13A31A0251 14A35A0209	G.Y.R.Siva Narayana K.Konda Raja K.Davis Lazarus M.Sesha Sri Harsha M.V.V.S.BhaskaraRao N.K.R.Swamy S.KrishnaKireeti M.Naveen	III EEE-B	Visakhapatnam steel plant	13.07.2015 to 26.07.2015
5.	13A31A0228 13A31A0236 13A31A0248 14A35A0206 14A35A0207 14A35A0208	G.V.VenkataSwamy A.Ram Naveen P.Sivakrishna Ch.Venkatesh K.Ganesh K.Rajesh	III EEE-A	Visakhapatnam steel plant	27.07.2015 to 08.08.2015
6.	13A31A0270 13A31A0281 13A31A0291 13A31A0292 13A31A02A2	S.Yugandhar Kumar G.Satish K.S.Sai Ashok K.DurgaVara Prasad R.Durga Prasad	III EEE-B	Visakhapatnam steel plant	27.07.2015 to 01.08.2015
7.	13A31A0282 14A35A0214 14A35A0221 14A35A0224 14A35A0225	G.Manikantha B.Prasanth Kumar M.Rajesh T.Arun Kumar V.Chaitanya	III EEE-B	Visakhapatnam steel plant	03.08.2015 to 15.08.2015

Student Participations in various activities:

S.No	Date	Name of the Event	Venue	No. of participants
1.	15.09.2015	Work shop on “Embedded System for Electrical Engineers”	Pragati Engineering College	103
2.	18.09.2015 & 19.09.2015	“VEDA”, National Level Technical Symposium	Aditya Engineering College	16

Industrial Visits Arranged:

III B.Tech I Sem of EEE- A & B Section Students (2013-17 batch) visited the 220KV/132KV/33KV substation, Achampet, Kakinada on 13-10-2015 & 14-10-2015.



EVENTS ORGANIZED BY THE DEPARTMENT:

A. A National Level One-Day Workshop:

The Department of Electrical and Electronics Engineering conducted A National Level one-day Workshop on " **Embedded System for Electrical Engineers**" in association with Sri Abedya Research & Development Association on **15th September, 2015** on the occasion of **Sir Mokshagundam Visweswaraya**'s birthday celebrations (Engineers Day) .106 students have participated in this workshop.





B. Fresher's Day Celebration:

II EEE students have organized freshers fest on 28.08.2015 to their juniors in the college. Dr. S.Sambhu Prasad, Principal, Dr. K. Sathyanarayana, Vice-Principal & H.O.D-EEE, Sri.G.Naresh, Associate Professor and faculty of EEE department have attended the function and gave their Valuable Sugesstions to I B.Tech EEE Students, and wished them to have a bright academic future. On this occasion around 200 students from EEE branch have Participated and Prizes were distributed to students.



C. International Day of Nonviolence:

International Day of Nonviolence is being observed on 2nd October on account of Gandhi Jayanthi, Mahatma Gandhi birthday (02.10.2015) celebrations for his efforts for bringing peace in India. On this Occasion, Department of Electrical & Electronics Engineering took pledge from all the staff and Students of EEE.



D. World Students Day:

World Students Day was celebrated on 15th October 2015 on the occasion of Dr. APJ Abdul Kalam birthday. On this occasion, activities like Essay Writing and Elocution competitions for II, III and IV year students were conducted. The topics for Essay writing and Elocution competition are “Achievements and Vision of APJ Abdul Kalam” and “APJ Abdul Kalam- A unique President of India” respectively.

Overall 69 students were participated in Essay Writing competition. 72 students were participated in Elocution competition. Out of which three best prizes in **BEST WRITER**, **BEST SPEAKER** and **BEST LISTENER** of each category of events.



On this occasion the Chief guest Dr. M.Y.S.Prasad, Former scientist ISRO & Director SHAR (Retd.) has shared his experiences with Dr. APJ Abdul Kalam and given a motivational speech to the students in the view of career & guidance in Science and Technology. Chief guest Dr. M.Y.S.Prasad, Dr.S.Sambhu Prasad, Principal, Mr.M.V.HaranathBabu, Director (Mgt) DrG.Raghuram (Director), Mr.M.Satish (Vice President) and Dr. K. Satyanarayana, Vice-principal, HOD-EEE have distributed the prizes to the winners. This program was started at 10.30 A.M and finished at 12.30 P.M. on that day

Prize winners in the events:

1.Essay Writing: (Best Writer)

- 1st prize: D. Venu Satya Madhav (III year B sec)
- 2nd prize: YasantwiniSireesha (III year A sec)
- 3rd prize: B. Srujana (II year A sec)

3.Best Listener:

- 1st prize: T. Sowmya (III year B sec)
- 2nd prize: K. ArunBabu (III year B sec)
- 3rd prize: S. Koteswarao (II year A sec).

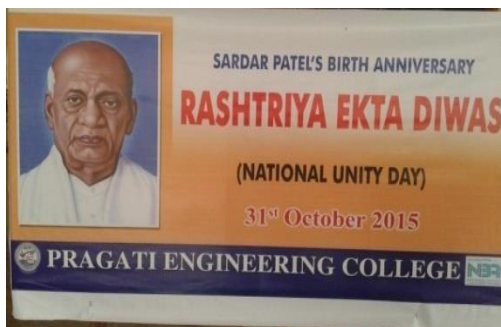
2. Elocution: (Best Speaker)

- 1st prize: N. PavanTeja(II year A sec)
- 2nd prize: Y.L. Pravallika(III year A sec)
- 3rd prize: T. Aparna Murthy(II year B sec)



E. National Unity Day:

National Unity Day (Rashtriya Ekta Divas) is being celebrated on 31st October on the eve of Sardar Vallabhai Patel birthday celebrations for his efforts and struggle for bringing unity in India.



EDITORIAL BOARD COMMITTEE:

Staff

1. Dr. K. Sathyanarayana, Professor - H.O.D
2. Ms. A. Durgabhavani, Assistant Professor

Students:

- E. Ammann Sastry (IV EEE-223)
 D. Rajesh (III EEE-277)
 R. S. N. Srisha Devi (III EEE-210)