

## I'BLAZE'17

### DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

#### Department Vision:

To develop innovative technologies in the field of Electronics and Instrumentation in order to meet the Industrial requirements.

#### Department Mission:

To impart an educational platform to illuminate the minds of rural and urban students in various fields of Instrumentation.

#### The Department:

The Department of Electronics and Instrumentation Engineering was started in the academic year 1998 with the AICTE approval for the intake of 60 students under the affiliation of Anna University, Chennai. In the span of 15 years, the department has procured equipments for 11 laboratories and established 7 laboratories. The department has a good record of research scholars with three Ph.D., holders. Four staff members are pursuing doctorates. It has organized various National conferences, Symposia and executed project works from the government as well as private agencies. It has signed an MoU with National Instruments, Bangalore during the academic year 2010 – 11. The amount of Rs. 17 Lakhs

was spent to set up the NI LabVIEW Academy School. Activities like training program, competitions, project works, research oriented project works, faculty development program are being conducted in combination with National Instruments both for students and members of faculty. The department has produced CLAD Certified Engineers and encouraged more number of students and the members of faculty to aim for it.

This year, the Department has organized online CLAD examination which was conducted by National Instruments, USA in which 19 faculties and 37 students from the departments of EIE, ECE & EEE attended the examination. One faculty from the Department of ECE and seven students from the Departments of EIE (3), ECE (3) & EEE (1) have passed the examination. The department is taking proactive actions to meet the requirements of industries by organizing workshops and training programmes through Yokogawa India Ltd., Chennai. Increase in placement opportunities has been the outcome of these programmes. The department is producing university rank holders consistently. It motivates the students to participate both in co-curricular and extra-curricular activities. Recently the department upgraded the process control laboratory by investing an amount of Rs3.5lakhs.

#### Association activities:

- Workshop on “Design & simulation of Electronic circuits using software packages” on 28.9.16
- Technical Seminar on “Application of Evolutionary Algorithms On Optimization Techniques” on 27-09-16
- Science Expo-2k16 for Polytechnic college students on 17-09-16
- National Level Technical Symposium YERAZIG'16 on 02-09-16

- Three days training on PLC from 08-08-16 to 10-08-16.
- Two days workshop on “NDT and its scope” from 04-08-16 to 05-08-16.
- National Instruments, Bangalore have conducted LabVIEW training for both Faculty & Students from 8.03.16 - 9.03.16 & 2.05.16 - 3.05.16.
- National conference on “Intelligent computing and automation” on 11-03-16.
- National Level Technical Symposium - YERAZIG'16 on 23-03-16.
- National Seminar on “How to prepare proposals for funding agencies” on 19-03-16.
- Training program on “PLC & DCS” from 24.2.16-26.2.16.
- Conducted Guest Lecture on various domains with industrial and academic expertise,
  - ❖ Soft computing
  - ❖ Recent trends in Industrial Automation
  - ❖ Career Guidance
  - ❖ Expectation from Instrumentation Engineer- Industrial Point of View
  - ❖ Discrete time systems and signal processing
  - ❖ How to get ready and Prepare for Interview
  - ❖ Basic and advanced Industrial Automation

#### Experts Visit to the Department:

- Dr.C.K.Mukhopadhyay & Dr.K.V.Rajkumar, IGCAR – Chennai
- Dr.J.Emerson Raja, Multimedia university, Malaysia
- Mr.A.Purushothaman, ABB, Bangalore
- Mrs.MeenuNatarajan, INTEL, USA
- Ms. B.Sindhuja, SPIC – Tuticorin
- V.Balaji, Balaji associates, Madurai
- Mr. R.Senthilraja, Software Engineer, Robert Bosch, Coimbatore
- Mr. Rajasekara Krishnaswamy, Engineering Manager ,Total Plant Engineering & Design Pvt Ltd.,
- Mr.S.Chandrasekar & Ms.S.Hemalatha, Instrumentation Engineer, Total Plant Engineering and Design, Madurai.
- Mr.Srinivasan Narayanan , TRIMAK, Chennai.
- Mr.V.C.Balaji Kannan, Proprietor, VPR Oil mills.
- Dr.M.P.Selvan, Professor, NIT, Trichy.
- Mr. P.Shenbaga rajan, Placement Trainer, SNS College of Technology, Coimbatore.

**Topics presented in the National / International conferences**

- ✓ Characteristics of electrical skin resistance
- ✓ Analysis of Brain Wave during Sleep By Stimulating the Acupuncture point
- ✓ Study of manufacturing process in Belt industries
- ✓ Wide range Burglar alarm for motor cycles
- ✓ Real time tank level indicator cum controller using LabVIEW
- ✓ Automatic insulation filling for potting machine
- ✓ Intelligent control technique for fault detection in textile industries using fuzzy logic controller
- ✓ Automation of Flue gas control in electrostatic precipitator and fabric filter using PLC and microcontroller

**Students placed Companies:**

- ✓ Southern Petrochemical Industries Corporation, Tuticorin
- ✓ Zoniac, Chennai
- ✓ HTA Instruments, Bangalore
- ✓ Chella software solutions,
- ✓ CEICO consulting Engineering Pvt.Ltd, Bangalore
- ✓ Infosys, Bangalore
- ✓ Tata Consultancy Services
- ✓ Arobot, Chennai
- ✓ A2 Software Solutions, Madurai
- ✓ Beehive Communication Club,
- ✓ Sutherland Global Services
- ✓ SPIC – Tuticorin
- ✓ W2B Technologies
- ✓ Tech Mahindra

**Short term courses attended by the students**

- ✓ LabVIEW
- ✓ IEEE Blended Learning Course on “RTL Design using Verilog”
- ✓ IBM Cloud computing

- ✓ IBM Cyber security
- ✓ Programmable Logic Controller

**Different domains in which the students have attended workshops**

- ✓ Non – Destructive Testing
- ✓ Design & Simulation Of Electronic Circuit Using Software Package
- ✓ Programmable logic controllers
- ✓ IEEE Sponsored two days national level Hands on Training on Matlab for Engineering Applications
- ✓ Workshop on ARDUINO
- ✓ Air Craft Science Exhibition And Workshop
- ✓ Real Time Automation programming in PLC
- ✓ Industrial Automation
- ✓ Spybotics

**Internships by the students**

- ✓ Avasarala Technologies Ltd, Bangalore
- ✓ Sure soft system pvt Ltd, Pondicherry

**Inplant training Undergone Companies:**

- ✓ Southern Railways, Chennai
- ✓ Tuticorin Thermal Power Plant, Tuticorin
- ✓ Idhayam Oil Mill, varaloti, Virudhunagar
- ✓ BSNL, Virudhunagar
- ✓ Penguin Apperals pvt Ltd, Kappalur
- ✓ Avasarala Technologies Ltd, Bangalore
- ✓ Sure soft system pvt Ltd, Pondicherry

**Winner in Sports**

- ✓ R.Ranjitha , R.Jeyabharathi, G.Angalaeswari of IV EIE has been ranked as the Winner in the zonal level Volley Ball match held at AAA college of engineering and technology, Sivakasi.
- ✓ S.Karthikeyan, IV-EIE won the third prize in Zonal level chess competition conducted in RVS Engineering College- Dindugal
- ✓ J.K. Sneha Lakshmi, IV-EIE won the second prize in Table Tennis in College sports day event.
- ✓ S.Shanmugapriya, IV EIE won the first prize in chess and second prize in basketball in College sports day events.

**Academic achievements – By Students**

- ✓ S. Ramya Geetha (IV EIE) has secured University Rank (Rank 10).

- ✓ A. Sathishkumar, IV-EIE had received NIYANTRA-Popular choice award in NIDAYS-2016 – Bangalore from 18-10-16 to 19-10-16.
- ✓ A.Sathishkumar (III-EIE), R.Sivaramakrishnan (IV-EIE) and K. Annapoorani (IV-EIE) have cleared CLAD (NI - Certified LabVIEW Associate Developer) Exam conducted on 10-03-16.
- ✓ A.Sathishkumar had won third prize in project contest held at Thiagarajar college of Engineering – Madurai on 11-03-16.
- ✓ A.Jeyasri, III – EIE had been chose as Best Student Co-ordinator in Rotary Youth Leadership Award Training Camp.
- ✓ P. Vinoth, IV EIE had won Third place in the competition “Robosapiens” conducted by AAA college of engineering and technology, Sivakasi.
- ✓ S. Thangarajan, IV EIE had won Fourth place in the competition “Robosapiens” conducted by AAA college of engineering and technology, Sivakasi.
- ✓ S.Thangarajan IV EIE had won First prize in the Robotics show conducted by Anand Institute of Higher Tech, Chennai.
- ✓ C. Suresh kumar II EIE had won second prize in the competition “Crackling mind” conducted by Kamaraj College of Engineering and Technology, Virudhunagar.
- ✓ C. Suresh kumar II EIE had won second prize in the competition “Quick flick” conducted by Kamaraj College of Engineering and Technology, Virudhunagar.

**Publications by Faculty (Journals/ International Conference)**

- R.Anitha, **S.Jeyadevi**, Gravitational search algorithm (GSA) based UPQC for power quality improvement of WECS- International journal of Electronics-Taylor & Francis, 2016. (I.F –0.5)
- **A.Rajavel**, S.Ramyageetha & T.R.K. Dhivyasree – “Intelligent control technique for fault detection in textile industries using fuzzy logic controller” - Journal of Electronic Control Systems and Control Instrumentation Engineering Volume 1 Issue 1,2016.Page No 17-34
- C.Karthick, K.Valarmathi, **M.Rajalakshmi** “Support vector regression and model reference adaptive control for optimum control of nonlinear drying process” in TAPPI International Journal, Feb 2016, VOL. 15, NO. 2, Pg.No 111
- J.Harinarayanan , **S.Ramesh Prabhu**, Published paper titled “Smart Energy management with automation of power switching using source and load prioritization” in Journal of Advances in Electrical Device – MAT Journals March’16
- P.Vishnu priya, **S.Jeyadevi**, An application of Evolutionary algorithm on Combined Economic and Emission Dispatch (CEED) integrating Plug in Vehicles (PEV) and Renewable Energy Sources(RES)" on 6-8th January, 2016. Int. conf. on renewable energy utilization (ICREU'16) at Coimbatore institute of Technology, Coimbatore. (Best paper award)
- D.Aarthi, Pradeepa, **S.Jeyadevi**, “Performance analyzes of grid connected renewable energy systems under nonlinear load conditions”, Int. conf. on ICIRES, at EGS pillay engg. College, Nagapattinam, June, 2016
- R.Monisha, B.Sindhuja, R.Suryadevi, **M.Rajalakshmi** “Study of manufacturing process in belt industries” in International Conference on Research Advances in Electrical Electronics & Communication 2016.ISBN:978-81-930654-5-8 at St Anns College of Engineering and Technology, Chirala, Andhra Pradesh on 19th March 2016.