

## Editorial Board:

### Editor :

Dr.V.Lakshmi Narayanan

### Members:

Mr.M.Balaji

Mr.K.M.Manu

Ms.S.Sathya

## Inside This Issue

- Workshops/  
Seminars Organized
- Student achievements
- Faculty publications and  
participation
- Industrial Tours and IIPC  
activities

## VISION OF THE INSTITUTE

We develop a globally competitive workforce and entrepreneurs.

## MISSION

Dr. Mahalingam College of Engineering and Technology, Pollachi endeavors to impart high quality, competency based technical education in Engineering and Technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe. This institution is also striving hard to attain a unique status in the international level by means of infrastructure, state-of-the-art computer facilities and techniques

## DEPARTMENT VISION

To develop globally competent instrumentation engineers and entrepreneurs with societal, environmental and human values.

## DEPARTMENT MISSION

**Supportive Learning Environment:** Provide suitable learning environment to the graduates with innovative learning resources and adequate infrastructure.

**Engineering Skills:** Enhance electronic, instrumentation and automation skills of the engineering graduates to fulfil the industrial requirements.

**Sustainable and Eco-Friendly:** Create awareness among the graduates for sustainable, eco friendly products and safety standards.

**Ethical and Professional Responsibility:** Enrich continuous learning, communicative, collaborative and administrative skills of the engineering graduates to become ethical, social responsible engineers and entrepreneurs

## PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The graduates will:

**PEO1.** Technical Knowledge Actively apply technical and professional skills in engineering practices towards the progress of the organization in competitive and dynamic environment.

**PEO2.** Higher studies and Research Own their professional and personal development by continuous learning and apply the learning at work to create new knowledge

**PEO3.** Professional and Ethical knowledge Conduct themselves in a responsible, professional and ethical manner supporting sustainable economic development which enhances the quality of life.

## PROGRAMME OUTCOME (POs)

**PO.1.Engineering Knowledge:** Apply the knowledge of Mathematics, Science and engineering to solve problems in the field of Electronics & Instrumentation Engineering.

**PO.2.Problem Analysis:** Identify, formulate/model, analyse and solve complex problems in the field of Electronics & Instrumentation Engineering.

**PO.3.Design and Development:** Design an electronic system/component, or process to meet specific purpose with due consideration for economic, environmental, social, political, ethical, health and safety issues.

**PO.4.Conduct Investigations:** Design and conduct experiment, analyse and interpret data to provide valid conclusions in the field of Electronics and Instrumentation Engineering.

**PO.5.Modern Tool Usage:** Apply appropriate techniques and modern software tools for design and analysis of Electronic systems with specified constraints.

**PO.6.Engineer and Society:** Apply contextual knowledge to provide engineering solutions with societal, professional & environmental responsibilities

**PO.7.Environment and Sustainability:** Provide sustainable solutions within societal and environmental contexts for problems related to Electronics & Instrumentation Engineering.

**PO.8.Ethics:** Comply with code of conduct and professional ethics in engineering practices

**PO.9.Individual and Team work:** Perform effectively as a member/leader in multidisciplinary teams.

**PO.10.Communication:** Communicate effectively to engineering community and society with proper aids and documents.

**PO.11.Project Management & Finance:** Demonstrate knowledge and understanding of the engineering and management principles to manage projects in multidisciplinary environment.

**PO.12.Lifelong Learning:** Recognise the need for, and have the ability to engage in independent and lifelong learning.

## PROGRAMME SPECIFIC OUTCOMES(PSOs)

**(PSO1).Instrument Analysis** Analyze and monitor the characteristics of electronic measuring instruments to ensure performance, safety and quality of the processes

**(PSO2).Controller Selection** Select the suitable instruments, control schemes and controllers as per the requirements



## Workshops organized

### Seminar cum conference on “ Recent Trends in Industrial automation” | 21.03.14 & 22.03.14

#### Coordinators

Dr. A. Senthil Kumar, HOD-EEE & EIE

Mr. K. Vijayakumar, HOD-ICE

Mr. M. Balaji, AP(SS)-EIE

Departments of EIE and ICE organized two day National seminar cum conference on Recent Trends in Industrial Automation (RTIA'14) on 21st and 22nd March 2014 in association with VI micro systems and Journal association with International Journal of Engineering and Research Technology (IJERT).

In this regard we have received the amount of rupees Nineteen Thousand as Registration Fee from the Participants and sponsorship amount of Rupees Fifteen Thousand from VI Microsystems, Chennai.

The Focal theme of this Seminar cum Conference was “Industrial Automation” which includes the major areas like

1. Industrial Automation and Drives Technology.
2. Ethernet Communication in Industrial Automation.
3. Recent trends in Industrial Technology.

The Conference Brochures for calling papers were sent to various engineering colleges during the month of December 2013. More than 70 papers were received, among them 20 papers were selected for presentation and 18 participants were selected to attend the seminar. The seminar cum Conference was inaugurated by Mr. Veera Kiran Kumar Ganji, Deputy Manager, Yokogawa India Ltd, Bangalore and Presided over by Dr.Ramakrishnan, Principal-MCET on 21.03.2014 FN(10.00AM to 10.30AM). Mr. Veera Kiran Kumar Ganji delivered the keynote address on “Recent trends in Industrial Automation”. Afternoon session paper presentation was started with 2 panels.





One panel was chaired by Dr.K.Srinivasan, Prof &Head/EIE, Sri Ramakrishna Engineering College , Coimbatore and Dr.A.Senthilkumar ,Prof & Head/EEE,MCET.Panel 2 was chaired by Dr.V.Lakshminarayanan, Associate professor/EEE-MCET and Dr.Vijayakumar, Associate professor/EEE-MCET. From each panel one best paper was selected and certified.

The papers are

1. **"Noise Reduction in Video using Double Density Dual Tree Complex DWT"**  
Soundarya K, PG Scholar, Department of EEE, PSG College of Technology, Coimbatore.
2. **"An Approach Using Narx Neural Network To Predict The Model For A Nonlinear Process and It's Comparative Analysis"**, Sivakumar Ramachandran, A.Ravikumar ,B.RaghuramanV.Guhan, PG scholar, Sastra University, Thanjavur.

Second day started with a key note address on Industrial Automation and Drives Technologies by Mr. R. Madhusoothanan, Manager – Sales, M/s, SIEMENS Ltd, Coimbatore. Session 2 was addressed by Mr. Arun Prakesh Ramasamy, Senior software Engineer, Robert Bosch, Bangalore. Afternoon session was in Bosch Rexroth training centre. Hands on training given by Mr. S. Anthony Jesudurai, AP (SS)/ICE and Mr.S.selvasenthilprabhu, AP/MECH.

## **Workshops organized**

### **Two days workshop on "Working with PLCs" 12.02.2014 & 13.02.2014**

#### **Coordinators**

Mr. K. Vijayakumar, AP(SS)/ICE  
Mr. M. Balaji, AP(SS)/EIE

Programmable logic controller (PLC) is a digital computer used for automation of typically industrial electromechanical processes, such as control of machinery on factory assembly lines, amusement rides and light fixtures.HMI (Human Machine Interface) is the operator interface in a manufacturing or process control system. It provides a graphics-based visualization of an industrial control and monitoring system.This workshop was organised for two days . 30 members had been participated in this workshop and gained knowledge on PLC.



## Automation Day | 16.04..2014

### Coordinators

Mr. M. Balaji, AP(SS) / EIE

Mr. T. S. Srinivasan, AP / EIE



Automation Day was celebrated by the ISA MCET section on 16<sup>th</sup> April 2014.

ISA-MCET section was started in 2012 with 150 students of EIE & ICE. It is one of the forums in MCET which is known for its assiduous work in AUTOMATION. It organizes lots of events to emphasize young minds with the skills of automation Events. For this automation day the inter college events like project presentation, paper presentation and technical quiz has been conducted. Paper topics were on Automation in automobiles, Conventional energy system, Artificial intelligence and Expert systems, Wireless automated system, Fuzzy logic Systems in automation, PLC / SCADA / DCS, Process automation and Industrial instrumentation. The first place was grabbed for the paper titled "Auto Car disable system for drunk and drive."

## Technical Lecture on "Industrial Automation" 27.01.2014

Mr D Kannan explained Industrial Automation is the conversion of a work process, a procedure, or equipment to automatic rather than human operation or control. Industrial Automation does not simply transfer human functions to machines, but involves a deep reorganization of the work process, during which both the human and the machine functions are redefined. He also explained that Industrial automation is the use of control devices such as PC/PLCs/PACs etc. to control industrial processes and machinery by replacing as much as possible labour intervention and dangerous assembly operations with automated ones.

### Guest:

Mr.D.Kannan,  
Proprietor- MAXX Equipments Pvt Ltd





# STUDENT ACHIEVEMENTS

## Co curricular

S.NO	Name	Event Name	Date	Venue	Awards/Prizes
1	R.Kavin Vishnu P.S. Muthamilselvan R.Mahenthiran	Project presentation at national level technical symposium	05.03.14	Kongu Engineering College, Erode	I prize
2	P.S.MuthamilSelvan S.Srivathsan	FLOW SCHEMA Project presentation event	06.03.14 to 07.03.14	CSIR-CECRI, Karaikudi	I prize
3	R.Mohanapriya S.Ezhiloviya	Quiz Competition	11.03.14	Karpagam College of Engineering, Coimbatore	I prize
4	B. Sakthivel P.S. Muthamilselvan R.Mahenthiran	Project contest	31.08.13	Ranganathan Engineering College	II prize
5	R.Mahenthiran A.Parthiban M.Praveen	Project presentation on intelligent drip technology	19/09.13	Sri Sairam Engineering College	II prize
6	K.Revathy Priyadharshini	Paper presentation	11.10.13	Mahindra Institute of engineering and technology	I prize
7	G. Arun	National Level Project Presentation event Titled: IR Blind Detector	01.03.14	Erode Sengunthar Engineering College, Erode	First place
8	G. Arun	National Level Treasure Hunt event	01.03.14	Erode Sengunthar Engineering College, Erode	First place
9	S.Mahavishnu S. Krishnakumar	National Level Paper Presentation event	07.03.14	Kalaingarkarunanidhi Institute of Technology, Coimbatore	Second place
10	G. Arun	National Level Project Presentation event	01.03.14	Erode Sengunthar Engineering College, Erode	First place

## IIPC Activities

- 3rd year EIE students had visited Fertilizers and Chemicals Travancore Ltd, Kochin on 11.04.2014
- The students of 2nd and 3rd year of EIE and ICE students visited ISA Sakthi Diaries, Marchinayekkanpalayam on 21.04.2014, on behalf of ISA MCET Section
- The students of 2nd and 3rd year of EIE and ICE visited ISA field trip to SakthiSoyas, Marchinayekkanpalayam on 05.04.2014, on behalf ISA MCET Section



## FDP Attended

Dept	Name of the Faculty with Designation	Details of Program	Place of Program	Date
EIE	Ms. V. Karpagam, AP	Attended one week Anna University sponsored FDP on "Industrial Electronics"	Hindustan College of Engineering and Technology, Coimbatore	23.06.2014 to 29.06.2014
EIE	Dr. V. Lakshmi Narayanan, HOD / EIE Mr. M. Balaji, AP(SS) / EIE	Attended Teaching-Learning Series Seminar by Dr. John Rymer, University of Alberta, Canada	MCA Conference hall, MCET	19.05.2014 to 06.06.2014
EIE	Mr. B. Vignesh Kumar, AP / EIE Mr. T. S. Srinivasan, AP / EIE	Attended Mission 10X UTLP programme for Embedded systems	Mission 10X Learning center, MCET	26.05.2014 To 30.05.2014
EIE	Ms. V. Karpagam, AP Mr. K. M. Manu, AP Mr. U. Rajkanna, AP MS. S. Sathya, AP MS. R. Kiruba, AP	Attended two days workshop on "Working with PLCs"	MCET	12.02.14 & 13.02.14
EIE	Ms. S. Durgadevi, AP/EIE Mrs. S. Kavitha, AP/EIE	Attended two weeks workshop on " Signals and Systems" conducted by IIT Kharagpur by Vikram M. Gadre, Somnath Sengupta and Deepak B. Phatak,	IIT - B Remote center, MCET, Pollachi	02.01.14 to 12.01.14

## Faculty Publication

- R.Dhivya, M.Balakumar, T.Gopalakrishnan "A Performance Comparison of Encryption Algorithms for Digital Images" in International Journal of Engineering Research and Technology. (ISSN: 2278-0181), Vol.3&Issue2pp.2169-2174, Feb 2014
- K.Faisal, R.Sudhar "Quality Issues in Digital Image Recovery from the Print-Scan Channel" in Journal of Image Processing and Networking, Volume:8 Special Issue I, Feb 2014
- S.Kavitha, T.S.Srinivasan, R.Kiruba "GSM Based Sign Board Display" International Journal of Engineering Research and Technology (IJERT), Vol.3, No.4, pp. 870 -874, April 2014
- T.Gopalakrishnan, S.Ramakrishnan, M.Balakumar "Image Encryption using Chaos and Parity based Pixel Modification in Permutation" International Journal of Computer Applica-