

### **Brief Profile of Electrical Engineering Department**

The Department of Electrical Engineering was established in the year 1959. It offers an undergraduate program in Electrical & Electronics Engineering, three post-graduate programs in the specializations of Power Systems Engineering, Power Electronics & Drives, Smart Electric Grid and also offers Ph.D. program. The Department has well qualified, experienced all doctoral faculty and good laboratory facilities with state-of-the-art equipment. The Department has strong Industry Interaction and is involved in various Research & Consultancy projects in coordination with industry, Governments of India, Telangana & Andhra Pradesh.

### **Brief Profile of the Mechanical Engineering Department**

The Department of Mechanical Engineering is one of the departments existing since 1965, the year of inception of the College. The Department has qualified and experienced staff and well equipped laboratories. Department of Mechanical Engineering offering 4 years and 5 years UG courses, four PG courses and 1 MOU course with CITED.

### **About the Teaching Learning Centre, NIT Warangal:**

The Teaching Learning Centre (TLC) is established at NIT Warangal with grants from the MHRD, GOI under the scheme, 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching' (PMMMNMTT). The important objectives of the centre are to conduct training programs for aspiring, newly inducted and in-service faculty in Higher Education, preparation of e-learning materials, facilitating on-line educational avenues, curriculum development, carrying out research in pedagogy and integrating ICT into teaching-learning process. It has already trained more than 8000 faculty so far and made a niche for itself in the PMMMNMTT Mission.

### **About the IEOM-Student Chapter, NIT Warangal:**

"IEOM Society International is a 501(c)(3) non-profit organization incorporated in the State of Michigan, USA." Recently NIT Warangal started IEOM NITW students Chapter during November 2021. The main objective of this student chapter is to globally foster critical thinking and its effective utilization in the field of Industrial Engineering (IE) and Operations Management (OM) by providing means to communicate and network among diversified people, especially in emerging countries, motivated by similar interests.



**IEOM-Student Chapter  
and  
TEACHING LEARNING CENTRE  
NIT WARANGAL**



*A Five Day offline Skill Development Program  
for the Students of NIT Warangal  
on*

## **INDUSTRIAL AUTOMATION**

**22 – 26 January 2022**

**CALL FOR REGISTRATION AND PARTICIPATION**

### **Coordinators**

**Dr. V. Vasu  
Dr. A.V. Giridhar**

### **Organized by**

**Department of Mechanical and Electrical Engineering  
in association with  
Teaching Learning Centre (PMMMTLC) and IEOM-Students Chapter,  
NIT Warangal**



## About the Course

In the present era of automated manufacturing and Industry 4.0, the industrial hydraulics and pneumatics form an integral part of all manufacturing systems. Programmable and flexible automation systems form the heart of modern production industries. These technologies demand expertise in key areas like automation scheme design, CNC systems, robotics, logic controllers etc. The main objective of this skill development programme for students is effective Hands-on training on these technologies with the help of experts from industries and academia.

## Topics

This workshop will focus on the principles, offline Hands-on field practices of Industrial Automation that are useful for the students. The main topics of the course are

- ❖ **PLC:** introduction, types, leading hardware and software, logic development, important instruction, industrial real applications, Industrial I/Ps & O/Ps, PLC wiring & Industrial project development.
- ❖ **HMI / MMI:** Introduction, interfacing with PLC, screen development, digital & analog data configuration, analog data scaling, password level, screen display & Industrial project development.
- ❖ **SCADA:** Introduction, interfacing with PLC, screen development, digital & analog data configuration, analog data scaling, driver selection and configuration, tag creation and configuration & Industrial project development.
- ❖ **AC DRIVE:** Introduction, hardware, parameter setting, speed, direction, acceleration and deceleration time control of induction motor, interfacing with PLC, multispeed & multidirectional control project.
- ❖ **ANALOG:** Introduction to analog signal, standard signal type, block diagram, ATD and DTA conversion program and wiring, Interface with SCADA.
- ❖ **INTERFACING PROJECT:** complete interfacing of PLC, SCADA, AC DRIVE, AC motor, Digital I/Os with a real industrial application.
- ❖ **Internet of things (IoT):** Arduino ide installation, preference link selection, board manager & ASP8266 WI-FI driver installation, library manager and library installation, board selection, communication, different IoT platforms, webserver with local area internet connection, BLYNK phone application for global internet connection, LED operation through different IoT platforms, Relay operation through different IoT platforms, operation and connection of single phase appliance using IoT, room Temperature and Humidity reading through IoT.

## Resource Persons:

Mr. Himanshu Kumar, Director, INDWELL Automation, Mangalore a reputed Industry having 15 years of expertise in the area of Industrial Automation will deliver lectures and Hands-on sessions for the Program.

**Venue: Teaching Learning Centre (TLC) , NIT Warangal**

## Registration is open to

Registration is open to B.Tech, M.Tech, PG Students and Research Scholars of NIT Warangal.

## How to Apply

All the Students shall apply by **Online Google Form** with Link:

<https://forms.gle/44QmiaNnYeMbbqBv7>

## Registration fee

Students have to pay Rs.300/- as registration fee.

## Bank Details

Registration fee may be sent in the form of On-line / NEFT to the Bank Account given below.

Account Name	Coordinator TLC NITW
Account Number	40376545007
Bank & Branch	SBI, REC Warangal (NITW campus)
IFSC code	SBIN0020149

**For any query regarding this programme, please contact the following persons.**

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