

## WORKSHOP ON PLC SCADA

A workshop on PLC & SCADA was organised by EEE department in association with CETPA Pvt Ltd. on 17<sup>th</sup> March, 2016. This workshop was attended by 53 students of EEE 2<sup>nd</sup> year. CETPA Pvt Ltd is a private organisation situated in Noida, Uttar Pradesh which conducts various training programs, seminars, hands-on workshop for undergraduate students on various topics like AVR, Arduino, PLC & SCADA, Embedded Systems etc, as part of the skill development which is very important in today's competitive world. They have various modules which can be taken up by the students as per their convenience.

In this workshop, we came to know about the recent technologies in the market, and one of the most advanced technology amongst all of them is PLC AND SCADA, which is used almost in every industry and even is used in metro, lifts and every other automated device. PLC stands for programmable logic controller which is mainly used in automated systems. It is in fact an advanced version of Microcontrollers which has timers and acts as an interface between machines and humans. It can be self-modulated and can be edited as per the requirements. The input for a PLC is derived from the sensors. Ladder logic is mainly used to program PLC. It is of three types-

- Modular
- Compact
- Modular and Compact.

Whereas, SCADA refers to SUPERVISORY CONTROL AND DATA ACQUISITION. SCADA is a supervisory device which works for the better working of the machine and helps us to program and edit the PLC as per our requirement.

For the purpose of designing, there are four steps-

- PLC
- SCADA
- PANEL DESIGNING
- DRIVES (like Variable Frequency Drives (VFD) used for smooth starting and stopping of machines or frequency related machines.)

After this theory session, it was followed by a hands-on session where programs were made using the ladder logic and automated output of the program was observed.

Overall, this workshop was knowledgeable and interactive and we got to know about the advancements in the electrical systems used.