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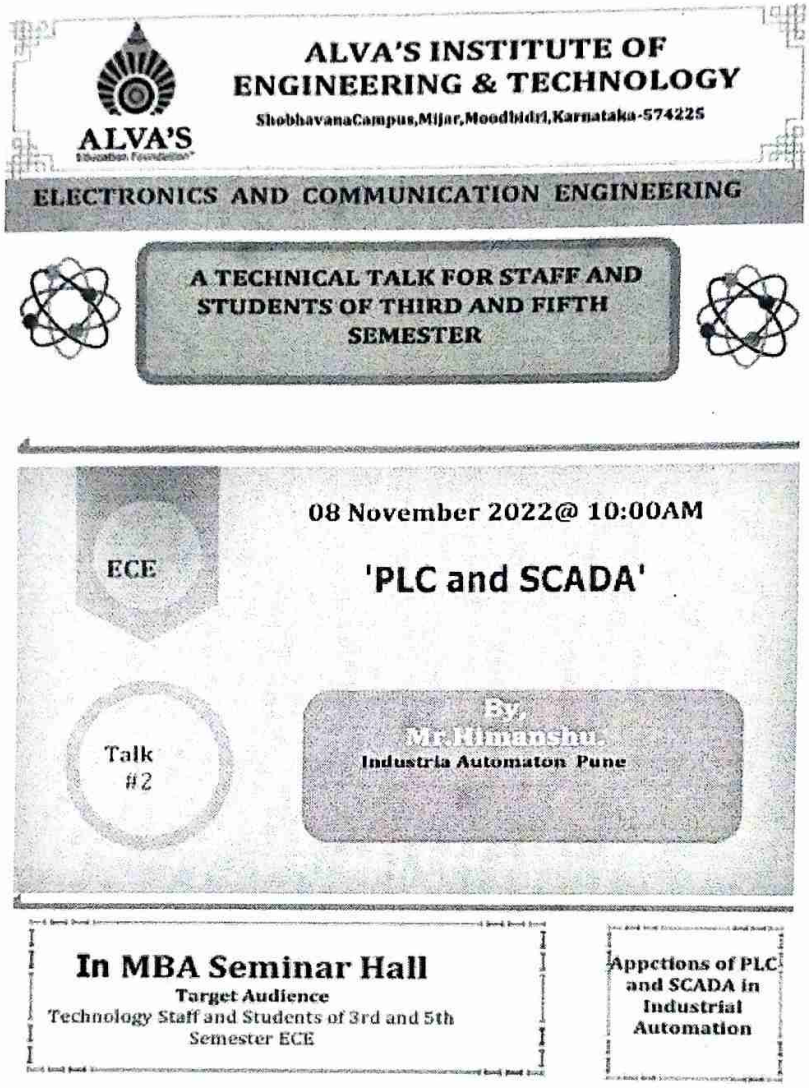
Technical Talk-II
On
"PLC and SCADA"



Resource Person: Mr. Himanshu Kumar Industrial Automation Pune

Date: 8th November 2022 | **Time: 10.00**AM to 1.00 PM

Department of ECE, AIET conducted the second technical talk of the odd semester 2022-23 on **"PLC and SCADA"**
for the staff and students of 3rd and 5th semester - ECE on **8th** November 2022 **by Mr. Himanshu Kumar** Industrial Automation Pune.

Experienced Director with a demonstrated history of working in the industrial automation industry. Skilled in Research, Programmable Logic Controller (PLC), SCADA, Industrial Automation, Drives, Analog and HMIs. Strong professional with a diploma focused in Electronics and Communications Engineering from Govt. Polytechnic College, darbhanga. Distance MBA in project management. He is having excellent experience of giving industrial Automation Training: PLC/ SCADA/ HMI/ ANALOG/ DRIVE and Wiring.

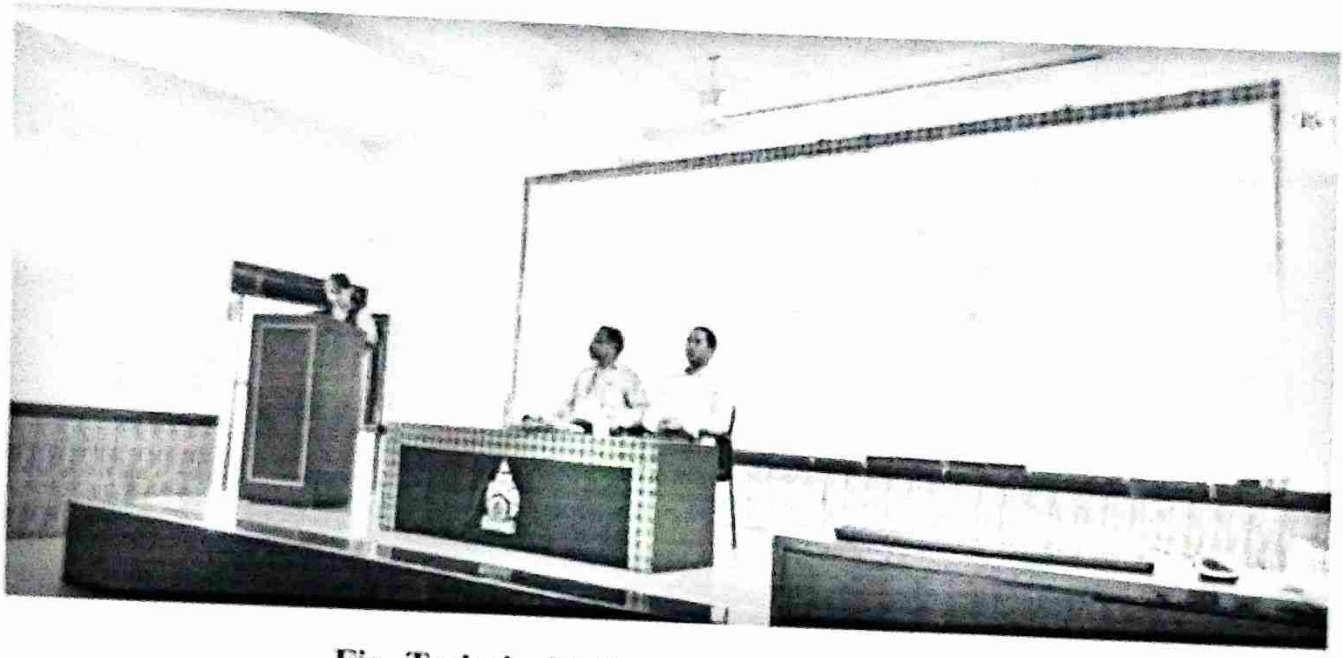


Fig. Technical talk on "PLC and SCADA"

Technical talk was started with welcoming of Resource person by Prof. Sudhakara HM Associate Professor, Department of ECE , AIET.

Resource person told the importance PLC which stands for Programmable Logic Controller. They are industrial computers used to control different electro-mechanical processes for use in manufacturing, plants, or other automation environments. He told that PLCs vary in size and form factors. Some are small enough to fit in your pocket while others are large enough to require their own heavy-duty racks to mount. Some PLC's can be customized with back planes and functional modules to fit different types of industrial applications.

He explaind tha PLCs are widely used in a variety of industries because they're fast, easy to operate and are considered easy to program. PLCs can be programmed in

several ways, from ladder logic, which is based on electromechanical relays, to specially adapted programming languages

He discussed about 5 programming languages used by most of the PLCs today. Thjese languages are Ladder Diagram, Structured Text, Function Block Diagram, Instruction List, or Sequential Function Charts.

SCADA and HMI systems enable users to view data from the manufacturing floor and provide an interface for users to provide control input and PLCs are an essential hardware component element in these systems.

PLC's act as the physical interfaces between devices on the plant or manufacturing floor and a SCADA or HMI system. PLCs communicate, monitor and control automated processes like assembly lines, machine functions, or robotic devices.

A PLC's functions are divided into three main categories: inputs, outputs and the CPU. PLCs capture data from the plant floor by monitoring inputs that machines and devices are connected to. The input data is then processed by the CPU, which applies logic to the data, based on the input state. The CPU then executes the user-created program logic and outputs data or commands to the machines and devices it is connected to.

Finally Prof. Sudhakara HM Associate Professor, department of ECE expressed gratitude to the resource person for giving such an informative talk to the students.