DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

Laboratory Facilities

"All the world is a laboratory to the inquiring mind" – Martin H. Fischer

The Department has 10 academic and Research laboratories namely, Bio-Signal Research lab, Industrial Automation lab, Process Control lab, Analytical Instrumentation lab, Measurements and Transducers lab, Signal Processing lab, Linear and Digital ICs lab, Semiconductor Devices and Circuits lab, Network Analysis Lab and Industrial Instrumentation Lab.

Bio-Signal Research Lab

Real time bio-signals can be analyzed.
Major Equipments
- ➢ Real time ECG, EEG and EMG measuring system
- ➢ Real time EPR system
- ➢ Electrical Safety analyzer

Analytical Instrumentation Lab

Analyze the concentration of chemical compound present in the solution and measure the conductivity & pH value.
Major Equipments
- ➢ Gas Chromatography
- ➢ Dual beam UV-Visible Spectrophotometer
- ➢ Flame Photometer
- ➢ pH meter

Develop the PLC program for real time experimental setups.

Major Equipments
- ➢ Bottle filling
- ➢ Temperature control
- ➢ Water level control
- ➢ PLCs : GE Fanuc , Allen Bradley, Siemens
- ➢ SCADA Software: Allen Bradley, Siemens

Industrial Automation Lab

Analyze the response of process with different PID parameters.

Major Equipments
- ➢ Pneumatic PI Controller
- ➢ Cascade Controller
- ➢ Conical tank level control
- ➢ Multi tank multi loop system

Process Control Lab

Familiarize with AC and DC parameters measurements and analyze the characteristics of different transducers.

Major Equipments
- ➢ NI Universal data acquisition card
- ➢ NI ELVIS Board

Measurements and Transducers Lab

Design and measure the physical parameters using LabVIEW and calibration of measuring instruments.

Major Equipments
- ➢ MyRIO Boards
- ➢ NI ELVIS Board
- ➢ Orifice trainer
- ➢ Stroboscope

Industrial Instrumentation Lab

Design signal conditioning circuits using electronic components.

Major Equipments

➢ 40 MHz CRO
➢ 10 MHz Function Generator
➢ Digital Storage Oscilloscope.

Analog Electronics Lab

Signal Processing using software.

Major Equipments

➢ LCD Projector
➢ CPUs, Monitors, Mouse, Key Boards
➢ Ceilings mount kit.

Signal Processing Lab