

In Plant Training (ECE/EEE/EIE) – 1 day (5 Hours)

Syllabus:

- 1. Embedded systems** (½ Hour)
 - + Introduction about technology
 - + Embedded system Vs Non-Embedded system
 - + Current trends in technology
 - + Future scope
- 2. Hands on training (Free Software Installation)** (1 ½ Hour)
 - + Overview of Microprocessor / Microcontroller
 - + Overview of open-source platform
 - + Basics of development board, IDE, Debugger, Flash programming
 - + **Experiment 1 : GPIO access**
 - + Single port access - Single LED toggle
 - + Full port access - Bar graph LED toggle
 - + Logical bar graph
 - + **Experiment 2 : ADC on LCD**
 - + LCD programming (16*2)
 - + ADC on LCD (Temperature sensor – LM35)
 - + Sensor calibration
- 3. MATLAB** (1 ½ Hour)
 - + Introduction about MATLAB
 - + Basics of MATLAB
 - + Image processing basics
 - + GUI
 - + **Experiment : GUI development**
 - + Push button call back
 - + Radio button/Checklist interface
 - + Axis plotting
- 4. Robotics** (1 Hour)
 - + Introduction about Robotics & its evaluation
 - + Asimov's law of robotic
 - + Working of robotics
 - + **Experiment : Robotic Arm**
 - + Hydraulic robotic
 - + Motorized robotic
- 5. Summary** (½ Hour)
 - + Summary of whole session
 - + Doubt clarification
 - + Other technology demo/overview