Department of Electrical and Electronics Engineering
PG: ME EMBEDDED SYSTEMS

### EMBEDDED CONTROLLERS LABORATORY

Course Objective

1. Impart the knowledge on Interfacing of different Processor.

2. Testing of flash controller programming.

3. Analyze of process control and PCB designing.

4. Intend and analysis of modulator and demodulator.

5. Design system using instrumentation amplifier.

Course Outcome

CO1: Able to interface peripheral devices with embedded processors.

CO2: Can choose appropriate microcontroller for the design specification with reference to a real time problem.

CO3: Ability to troubleshoot embedded based hardware devices.

CO4: Propose interfaces using embedded processors.

CO5: Design and Analysis of real time operating systems.

EMBEDDED CONTROLLERS LABORATORY
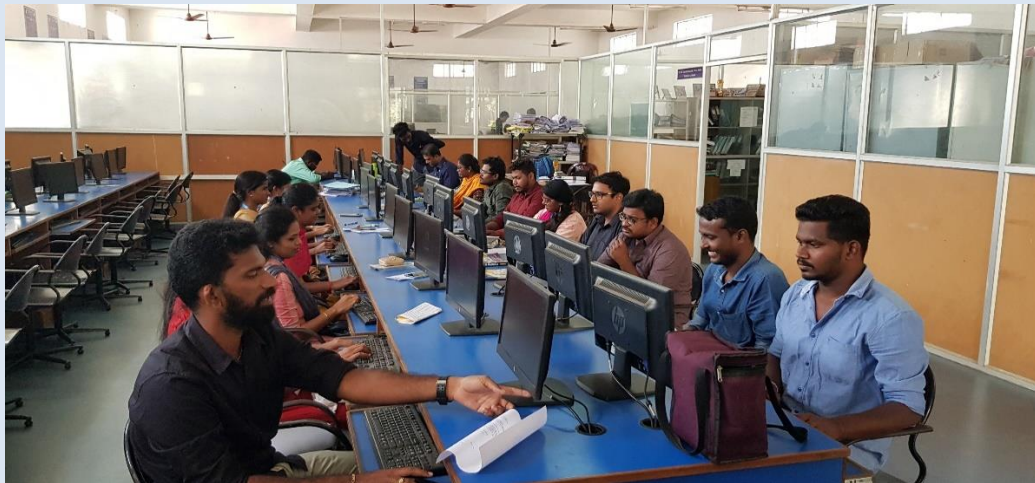
REAL TIME AND EMBEDDED SYSTEM LAB

Course Objective

1.Understand the design challenges of ARM processorin embedded system

2.Study general of I/O Interfacing

3.Understand and study of different types of microcontrollers.

4.Learn the embedded system design real time system

5.Study the embedded software tools for RTOS

Course Outcome

CO1: Identify the various embedded system design

CO2: Evaluate the general and input and output interfacing

CO3: Compare various microcontrollers

CO4: Recognize the real time application

CO5: Apply the real time software development tools.

EQUIPMENTS LIST

SI. NO.	NAME OF THE EQUIPMENT
1	SPARTAN 3E PROJECT CARD
2	ADC/DAC MEASUREMENT & CONTROLE MODULE
3	8086 MICROPROCESSOR TRAINER
4	TRAFIC LIGHT CONTROLE SYSTEM
5	TMS320C6713 BASED TRAINER
6	LPC 2148 DEVELOPMENT BOARD
7	RTD & THERMOCOUPLE INTERFACING
8	8086 MICROPROCESSOR TRAINER KIT
9	TMS320C6713 DSP TRAINER KIT

10	XILINX SPARTAN 3E FPGA TRAINER KIT	
11	LPC 2148 ADVANCED DEVELOPMENT BOARD	
12	OSCILLATOR USING PLL	
13	TONE DETECTOR USING PLL	
14	CPLD KIT	
15	PIC KIT	
16	ELEVATOR CONTROLLER	
17	MODEL TRAIN CONYROLLER	
18	ARM7 DEVELOPMENT BOARD	
19	ZIGBEE EVALUATION BOARD	
20	SPARTAN 3 DEVELOPMENT BOARD	
21	MSP430 DEVELOPMENT BOARD	