DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING
EMBEDDED SYSTEMS LAB

Objective of the Laboratory

- To enable the students to program, simulate and test the 8051, and ARM processor based circuits and their interfaces
- To enable the students to program various devices using Proteus Design , KIEL software
- To provide a platform for the students to do multidisciplinary projects.
- To facilitate the conduct of Lab Projects/Mini projects/Major Projects.

S.No.	Name of the Equipment	Description
1	**Arm 7 Blue board Lpc2148** 	BlueBoard-LPC214X is an evaluation board for LPC2148 ARM7TMDI based microcontroller. The LPC2148 microcontroller has 512KB of internal flash and 32+8K RAM. It is a ready-to-run development platform with code snippets to demonstrate applications for every feature supported on the board. The BlueBoard integrates a rich set of peripherals and interfaces including interfaces Serial ports, LCD, Keyboard, SD/MMC, Buttons, LEDs and etc.
2	**Microcontroller kits 8051** 	UTS-MC-kit-M7 Philips P89C51RD2 - The 8051 kit development system is a fully contained board suitable for programming 8051 microcontroller as well as for designing and testing 8051 projects.

3	**National instruments-lab view kits**	NI USB 6341,X series multiplication DAQ(16 16 AI, 24 DIO 2A0) 500k s/s Single channel.NI Lab view Academy Hardware platform.
4	**Mbed KL25Z**	The Freedom KL25Z is an ultra-low-cost development platform for Kinetis® L Series KL1x (KL14/15) and KL2x (KL24/25) MCUs built on Arm® Cortex®-M0+ processor. • Features include easy access to MCU I/O, battery-ready, low-power operation, a standards-based form factor with expansion board options and a built-in debug interface for flash programming and run-control. • The FRDM-KL25Z is supported by a range of NXP and third-party development software
5	**Desktop computers**	HP 280 G2 MT-INTEL core i3 6100 processor, 4 GB RAM are available in the lab with Windows Operating System.
6	**30 MHz Dual trace CRO**	30 MHz Dual Trace Oscilloscope have the following features Max. Input Voltage: 400V pk, Sweep time accuracy: ±3%.
7	**DC regulated power supply**	PHY-8230D Dual DC regulated power supply (0-30V) 2A.
8	**KEIL µvision IDE a 32K code limited version.**	Keil MDK is the most comprehensive software development solution for Arm-based microcontrollers and includes all components that you need to create, build, and debug embedded applications.

Name of Faculty handling the Laboratory:

Mr. K. Madhu Babu (Lab Incharge)
Mr. V. Ramesh Babu (Lab Engineer)