Report on

"Embedded Systems using 8051 Microcontrollers"

(A three day workshop during 20th to 22nd July 2017)

Workshop objective: This workshop helps students to

- Learn how to write different programs in **Embedded C Language.**
- Get good practice with the usage of **Keil Micro Vision IDE tool** to write programs and converting them into Hex files.
- Learn to dump the hex files into Microcontroller virtually using **Proteus tool** and verify the operation visually.
- Learn to dump the hex file on to the ICs using **Wellon** software and verify the outputs using 8051 Development board.
- Get the awareness on different projects based on the applications of 8051 Microcontroller which will be useful to do their mini projects.

About Embedded system

Embedded system is loading the software we develop into the Microcontroller. Usually it is called "Burning software" in to the controller. Before burning a program we must do certain prerequisite operations with the program. This includes writing a program in a text editor, compiling the programme and finally generating hex code from the compiled program. In the earlier days these three tasks have been done in different software tools separately.

Keil Micro Vision

It is free software which solves many of the pain points for an embedded program developer. This software is an integrated development environment (IDE), which integrated a text editor to write a program in assembly language or C language, a compiler and will convert the source code to hex files too.

The µVision IDE combines project management, run-time environment, build facilities, source code editing, and program debugging in a single powerful environment. µVision is easy-to-use and accelerates your embedded software development. µVision supports multiple screens and allows you to create individual window layouts anywhere on the visual surface.

Proteus

It is a simulation and design software tool developed by Labcenter Electronics for Electrical and Electronic Circuits design. It deserves to bare the tag line "From concept to completion". This software suite contains Schematic, Simulation as well as PCB designing.

ISIS is the software used to draw schematics and simulate the circuit in real time. The simulation allows human access during run time, thus providing real time simulation. It has wide range of components in its library.

Benefits

With this Knowledge Students will be able to do projects for different applications.

Registration Details:

- Prior registration for the workshop by submitting the duly filled registration form is mandatory on or before 18th July, 2017.
- Registration Form & Registration Process is available at Registration Page.
- Registration fee for attending the workshop is Rs.200/- each.

About the participants:
Number of participants: 25

Certification:

- Participants who successfully participated in all the sessions of the training were presented with a participation certificate.

Organizers:

- Workshop was planned, organized and conducted in the Department of ECE by
  - Mrs.G.Umadevi, Asst.Professor,
  - Mr.B.Chandrasakher Reddy ,Asst. Professor,

Speakers:

- Mrs.G.Umadevi, Asst.Professor, NNRG

Workshop Process:

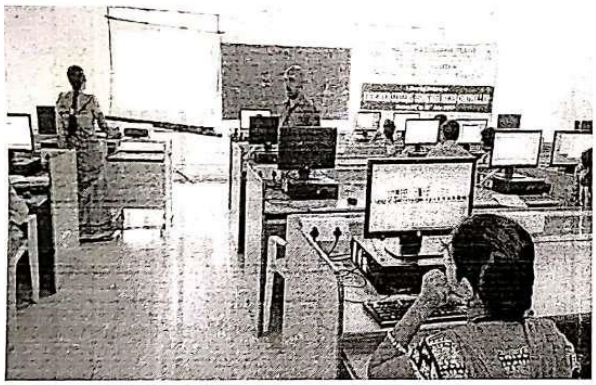
The program involves individual and group exercises as well as input from the course experts and presentations from the speaker. There were many opportunities to raise questions or concerns throughout the Workshops.

The following approaches were used

- Lectures
- Discussions
- Practice sessions

Workshop Schedule

S NO	Date	FN				AN
		09.30am-10.40am	10.40am-11.00am	11.00am-12.30pm		1.30pm-3.30pm
1	20.07.17	Introduction to 8051 Microcontroller	BREAK	Introduction to Keil Microvision and Proteus tools.	LUNCH BREAK	Interfacing of LED and switch with C programming
2	21.07.17	Motor interfacing with L293DIC		Interfacing of 8051 with seven segment display and a buzzer		LCD interfacing and
3	22.07.17	Keypad interfacing		RFID interfacing		Practical session



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