

Report on
A two day workshop on
8051 Microcontroller and its applications
(18th & 19th March 2016)

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.
- 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 μ Vision IDE combines project management, run-time environment, build facilities, source code editing, and program debugging in a single powerful environment. μ Vision is easy-to-use and accelerates your embedded software development. μ Vision 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 March, 2016.
- 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.Indira Priya darshini, Assoc. Professor, NNRG
 - Ms. R.Anjusha, Asst. Professor,
 - Ms. S.S.saraswathi, Asst. Professor

Speakers:

- Mrs.G.Indira Priya darshini, Assoc. 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			L U N C H B R E A K	AN
		09.30am-10.40am	10.40am-11.00am	11.00am-12.30pm		1.30pm-3.30pm
1	18.03.16	Introduction to 8051 Microcontroller	B R E A K	Introduction to Keil Microvision and Proteus tools.	Interfacing of LED and switch with C programming	
2	19.03.16	Keypad interfacing		RFID interfacing		Practical session

Workshop Conclusions

The key issues of the workshop were summarized and the workshop was closed on July 19th 2017 with concluding remarks from the Dean school of Engineering, NNRG Dr. G.Janardhana Raju, Dr.P.Subbaiah Prof, ECE HOD Mr. P.S Sreenivasa Reddy. Finally workshop was concluded by the vote of thanks given by Mrs. G.Umadevi, Asst Professors, ECE Department.



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