Three Day Workshop on
"Microcontrollers (ATMEGA328) and Embedded programming"

Date   : 4th , 5th & 6th July 2019

Venue: Royal College of Engineering & Technology, Akikkavu

Number of participants: 20 Students

Report

Department of Electronics and Communication Engineering (ECE) in association with IE(I) and RERDW, conducted a Three day workshop on **"Microcontrollers (ATMEGA328) and Embedded programming**", during 4th to 6th july 2019. Twenty Students, which includes the final year RCET ECE students and the students from other colleges, participated in the workshop.

The sessions were handled by Mr. Narayanan P.P., Mr. Suhas P.S., Mr. Kiran Samuel and Mr. Rahul V, Assistant Professor's, department of ECE, RCET. The
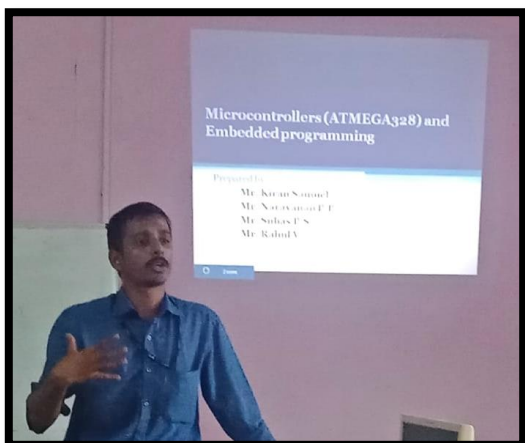
Day-1 (4/07/2019):

The session started at 9:30am, after registration. The students were given a brief introduction to the embedded programming. The microcontroller ATmega328 was taken as example and gave a detailed review on various functionalities of the controller. The First day concentrated on giving a detailed knowledge on how to access various input output ports and students were able to program various examples for accessing ports.

Atmel Studio 6.0v was taken as the compiler and students were familiarised with this software. The uploading of the program and simulations were done using Proteus 8.0V (Circuit simulating Software).
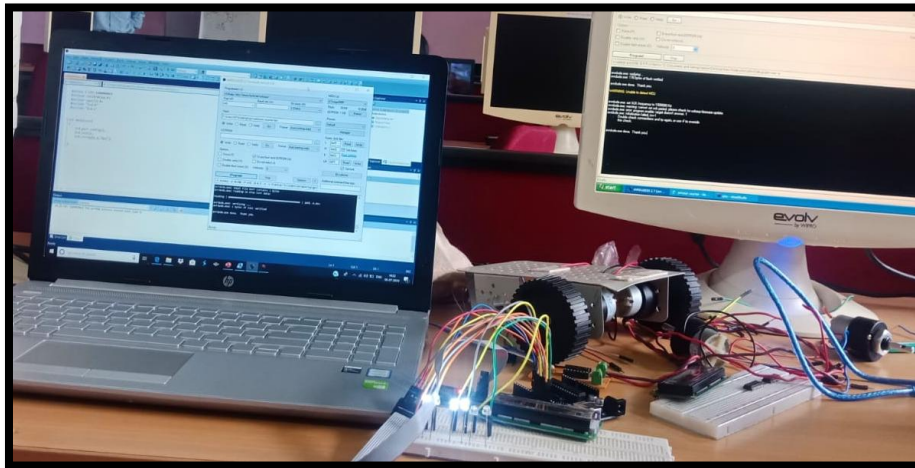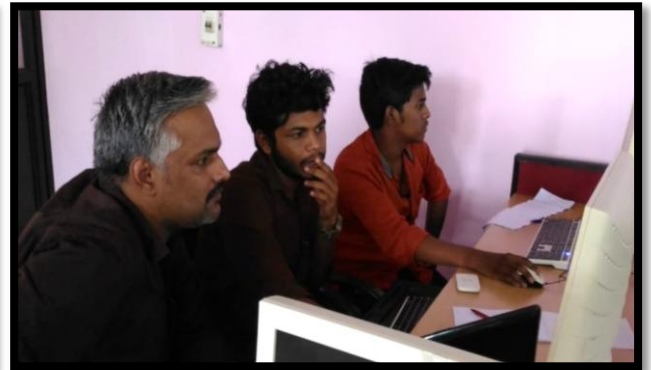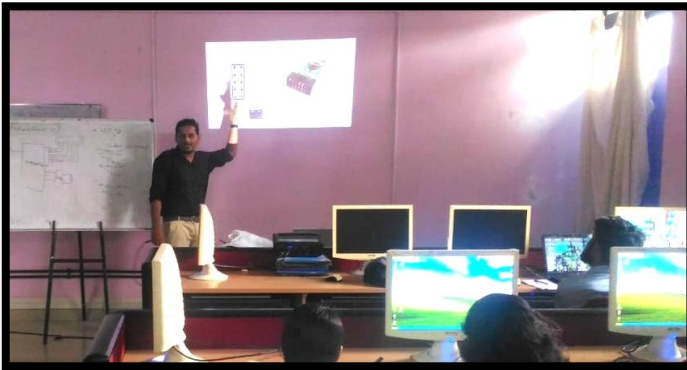
Day-2 (5/07/2019):

The sessions on day-2 was divided into two; Morning session concentrated on interfacing 16x2 LCD module with the microcontroller, while the afternoon session was dedicated for interfacing various motors. Students actively wrote embedded programs in Atmel studio and simulated the same.

Day-3 (6/07/2019):

In the morning session of the day-3, the students were familiarised on how to use ADC (analog to digital converters) and how it is applied to interface various sensor modules. The hardware program-burning process into the microcontroller was demonstrated and taught during the afternoon session. The students were able to dump various programs into the controller using USASP programmer (Programmer module) in to the microcontroller (ATmega328p).

The valedictory function of the program was conducted at 3:30pm on the third day. Mr. Krishnakumar R. HOD of dept. of ECE RCET, distributed the certificates of participation to the students. He mentioned the importance of knowing embedded programming in final year projects as well as for their placements. He suggested the students to keep regular practice with the learned programming software's. The students gave good feedback and requested to host more such hands-on workshops in future.

Group Photo of the students and the staffs who handled the Workshop is shown below: