

DEPARTMENT OF ELECTRONICS
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
COCHIN - 682 022.

M.Sc. (Electronics) II Semester
Introduction to Embedded Systems
LABORATORY ASSIGNMENTS

1. Interface a 16x2 LCD to PIC 16F887 Microcontroller and display any Malayalam word.
2. Interface a PC keyboard to 16F887 Microcontroller and display the key switch pressings with blinking/underline and reverse video controls by assigning control key combinations (please use user character generator if required).
3. Use the inbuilt Clock calendar chip DS1307 and display the *time, day and date* in the PC Monitor with *time, day, date and year* setting facility.
4. Develop a function generator with PC interface (RS232C) capable of generating programmable sine using PIC 16F887 μ C development board.
5. Convert your PC as a low frequency storage oscilloscope by using the Development Board's in built RS 232C and ADC (10 bit resolution) with a bauds rate of about *9.6kpbs*.
6. Interface a touch screen to the μ C development board and identify the images.
7. Using an L298 motor driver chip develop a Sine/Cosine Motor drive by sensing the current through the motor.

Notes: 1. *February last week 1st Evaluation – at least three experiments*
2. *April first week final evaluation*