EC307	**Micro controllers Laboratory**	**PCC**	**0-1-2**	**2 Credits**

Pre-requisites: knowledge of ARM architecture and programming

Course Outcomes: After the completion of the course the student will be able to:

CO1	write assembly language and C programs for arithmetic operations
CO2	Interface LED, ADC and DAC modules with microprocessor based system
CO3	Interface stepper motor, Keyboard and memory
CO4	Interface wi-fi and bluetooth modules

Mapping of course outcomes with program outcomes:

PO / CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	-	-	-	-	-	-	-	-	2	1	2	2
CO2	-	2	-	-	-	-	-	-	-	-	2	1	2	2
CO3	-	2	-	-	-	-	-	-	-	-	2	1	2	2
CO4	2	2	-	-	-	-	-	-	-	-	2	1	2	2

List of Experiments:

1. Write a simple programs for arithmetic operations – addition, subtraction, multiplication and division of 16 or 32 – bit numbers

2. Flashing of LEDS using Shift Register

3. Interfacing ADC

4. Interfacing DAC

5. Interfacing 7-Segment LED.

6. Interfacing of Analog Key pad.

7. Interrupt using on board push button

8. Interfacing real time clock.

9. Interfacing stepper motor.

10. Interfacing temperature sensor.

11. Interfacing Bluetooth module.

12. Interfacing Real Time Clock

13. Interfacing of micro SD Card.

14. Interfacing Wi-Fi Module