BSITP402 INTRODUCTION TO EMBEDDED SYSTEMS PRACTICAL

402.1.1 COURSE CREDITS: 02

402.1.2 PRACTICALS / WEEK : 03

List of Practical	
1.	Design and develop a reprogrammable embedded computer using 8051microcontrollers and to show the following aspects. a. Programming b. Execution c. Debugging
2.	Configure timer control registers of 8051 and develop a program to generate given time delay.
	To demonstrate use of general purpose port i.e. Input/ output port of two controllers for data transfer between them.
3.	Port I / O: Use one of the four ports of 8051 for O/P interfaced to eight LED's. Simulate binary counter (8 bit) on LED's
	To interface 8 LEDs at Input-output port and create different patterns.
	To demonstrate timer working in timer mode and blink LED without using any loop delay routine.
4.	Serial I / O: Configure 8051 serial port for asynchronous serial communication with serial port of PC exchange text messages to PC and display on PC screen. Signify end of message by carriage return.
	To demonstrate interfacing of seven-segment LED display and generate counting from 0 to 99 with fixed time delay.
	Interface 8051 with D/A converter and generate square wave of given frequency on oscilloscope.
5.	Interface 8051 with D/A converter and generate triangular wave of given frequency on oscilloscope.
	Using D/A converter generate sine wave on oscilloscope with the help of lookup table stored in data area of 8051.
6.	Interface stepper motor with 8051 and write a program to move the motor through a given angle in clock wise or counter clock wise direction.
7.	Generate traffic signal.

8.	Implement Temperature controller.
9.	Implement Elevator control.
10.	Using Flash Magic
a.	To demonstrate the procedure for flash programming for reprogrammable embedded system board using Flash Magic
b.	To demonstrate the procedure and connections for multiple controllers, programming of same type of controller with same source code in one go, using flash magic.

402.1.3 EVALUATION PATTERN

• Semester end Practical examination (2.5 hours duration)	50 marks

Approved by Department of Information Technology and Computer Science Board of studies

Meeting held on 24th February 2021

BSCIT403 COMPUTER ORIENTED STATISTICAL TECHNIQUES

403.1 COURSE CREDITS: 02

403.2 COURSE OBJECTIVE

Objectives:

The objective of this subject is to demonstrate understanding of statistical methods in support of the analysis, design and application for problem solving in the field of information technology.

403.3 LEARNING OUTCOME

Expected Learning Outcomes:

1) Students should be able to know numerical methods and its applications.
Students should be able to study about computational mathematics used in specialized studies and research.