

Course Code	Course Title	L	T	P	C
BECE204P	Microprocessors and Microcontrollers Lab	0	0	2	1
Pre-requisite	BECE102L	Syllabus version			
		1.0			
<b>Course Objectives</b>					
<ol style="list-style-type: none"> <li>1. To familiarize the students with assembly language programming using microprocessor and microcontroller.</li> <li>2. To familiarize the students with Embedded C language programming using microcontroller.</li> <li>3. To interface peripherals and I/O devices with the microcontroller and microprocessor.</li> </ol>					
<b>Course Outcome</b>					
Student will be able to <ol style="list-style-type: none"> <li>1. Showcase the skill, knowledge and ability of programming microcontroller and microprocessor using its instruction set.</li> <li>2. Expertise with microcontroller and interfaces including general purpose input/ output, timers, serial communication, LCD, keypad and ADC.</li> </ol>					
<b>Indicative Experiments [Experiments using 8086/8051/ARM]</b>					
1	Assembly language programming of Arithmetic/logical operations.	<b>6 hours</b>			
2	Assembly language programming of memory operations.	<b>4 hours</b>			
3	Assembly language programming/ Embedded C programming for interfacing the peripherals: General purpose input/ output, timers, serial communication, LCD, keypad and ADC.	<b>10 hours</b>			
4	Hardware implementation of peripheral interfacing: General purpose input/ output, timers, serial communication, LCD, keypad and ADC.	<b>10 hours</b>			
<b>Total Laboratory Hours</b>					<b>30 hours</b>
Mode of Assessment: Continuous Assessment and Final Assessment Test					
Recommended by Board of Studies		14-05-2022			
Approved by Academic Council		No. 66	Date	16-06-2022	