

INTRODUCTION TO IOT

IV Semester								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
A5EC01	ESC	L	T	P	C	CIA	SEE	Total
		-	-	3	1.5	30	70	100
COURSE OBJECTIVES:								
The course should enable the student:								
<ol style="list-style-type: none"> 1. To develop basic programming skills through graphical programming 2. To learn hardware interfacing and debugging techniques 3. To design and develop android app 								
LIST OF EXPERIMENTS								
Introduction to IOT								
<ol style="list-style-type: none"> 1. Introduction to basic electronic components and digital electronic 2. Introduction to sensors and Actuators 3. Introduction to microcontroller 4. Introduction to Arduino IDE 								
EXPERIMENT PROGRAMS:								
<ol style="list-style-type: none"> 1. Blinking of LED with different delays 2. Digital I/O Interface [IR Sensor, PIR Sensor] 3. Analog Interface [ADC, Temperature Sensor] 4. Motor speed And Direction control 5. Serial Communication 6. Wireless Interface –Bluetooth & Wi-Fi Technologies 7. Wireless Control of wheeled robot 8. Smart Home Android App Development 								
Reference Books:								
<ol style="list-style-type: none"> 1. Sylvia Libow Martinez, Gary S Stager, Invent To Learn: Making, Tinkering, and Engineering in the Classroom, Constructing Modern Knowledge Press, 2016 2. Michael Margolis, Arduino Cookbook, Oreilly, 2011 								
COURSE OUTCOMES:								
The students should be able to:								
<ol style="list-style-type: none"> 1. Able to demonstrate various sensor interfacing using Visual Programming Language. 2. Able to analyze various Physical Components. 3. Able to demonstrate Wireless Control of Remote Devices. 4. Able to design and develop Mobile Application which can interact with Sensors 								