

Session wise break up

	SESSION	TOPICS	THEORY	LAB	TOTAL
ARDUINO	Introduction to Arduino Microcontrollers	Getting started with Arduino	1Hr		1 Hr
		Setup Arduino IDE			
	I/O port	LED Blinking	1Hr	3Hrs	4Hrs
		Delay Creation			
		Interfacing a switch			
		Wiring the Circuit and download the program			
	LCD Interfacing	Display your name	1 Hr	2Hrs	3Hrs
		Wiring the Circuit and download the program			
	Serial Port Interfacing	USART basics and Programming	1 Hrs	2Hrs1	3Hrs
		Display the data transmitted from the PC in the LCD			
	Analog To Digital Converter Interfacing	ADC basics and interfacing	1 Hr	2Hrs	3Hrs
		Display the temperature reading from the sensor in the LCD Transmit the Temperature reading to the PC			
	Wireless Module Interfacing	Reading Sms	1 Hr	5 Hrs	6 Hrs
		Controlling a device through sending SMS			
		Tracking using GPS			
Servo Motor and dc motor interfacing	Controlling dc motor through wireless medium	1 Hr	4Hrs	5Hrs	
	PWM basics				
	Servo Motor interfacing				

	SESSION	TOPICS	THEORY	LAB	TOTAL
RASPBERRY PI	Introduction to Python	Introduction and Basics of Python	1 Hr	5Hrs	6 Hrs
		Python Decision Making,Imperative/Procedural/Scripting			
		Python Loops,Python Function,Python Modules,Python File I/O			
	IOT Design & Development	Raspberry Pi3 Evaluation board architecture	1 Hr	2 Hrs	3 Hrs
		Linux OS familiarization ,basic commands and utilities			
		Building and setting up RASPBIAN on the ki	1 Hr	2 Hrs	3 Hrs
		Setting up BLE and WiFi on RASPBIAN			
		GPIO in Raspberry Pi	1 Hr	2 Hrs	3 Hrs
		Serial Communication			
		Introduction to Opencv	1 Hr	2 Hrs	3 Hrs
		Basic Image Processing in Opencv			
		Sending Email	1 Hr	2 Hrs	3 Hrs
		Sending Message through webservice			
		setting up a Webserver	1 Hrs	3 Hrs	4 Hrs
Case Studies					