

PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY

(Autonomous)

KANURU, VIJAYAWADA-520007

II B. Tech – II Sem (Common to CSE (AI&ML and Data Science))

Internet of Things Lab

Course Code:	20ES1452	Year:	II	Semester:	II
Course Category:	ES Lab	Branch:	CSE (AI&ML)	Course Type:	Practical
Credits:	1.5	L-T-P:	0-0-3	Prerequisites:	
Continuous Internal Evaluation:	15	Semester End Evaluation:	35	Total Marks:	50

Course Outcomes

Upon successful completion of the course, the student will be able to

CO1	Develop various sensor interfacing using Arduino IDE	L3
CO2	Evaluate Wireless Control of Remote Devices	L4
CO3	Design and develop a Mobile Application which can interact with Sensors and Actuators.	L5
CO4	Make an effective report based on experiments.	L3

SYLLABUS

Expt. No.	CONTENTS	Mapped CO
1	Digital I/O Interface – Blynk LED, Multicolour LED.	CO1, CO4
2	Digital I/O Interface - IR Sensor, Slot Sensor	CO1, CO4
3	Analog Read and Write - Potentiometer, Led Brightness Control.	CO1, CO4
5	Analog Read and Write -Temperature Sensor	CO1, CO4
6	Dc Motor Control - Dc Motor Speed and Direction Control.	CO1, CO4
7	Serial Communication - Device Control.	CO1, CO4
8	Fabrication and direction control of the wheeled robot using Arduino	CO1, CO4
9	Wireless Module Interface -Wifi.	CO1, CO2,CO4
10	Basic Android App Development using MIT App Inventor.	CO1,CO3, CO4

Learning Resources

Text Books

1. Invent To Learn: Making, Tinkering, and Engineering in the Classroom, Sylvia Libow Martinez, Gary S Stager, 2016, Constructing Modern Knowledge Press.

References

1. Arduino Cookbook, Michael Margolis, 2011, Oreilly.