VASAVI COLLEGE OF ENGINEERING (Autonomous)
IBRAHIMBAGH, HYDERABAD-500031
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Name of the Course: **INTERNET OF THINGS**

ASSIGNMENT -3

Name of the Faculty: **S Vinay Kumar**   Date of Submission: **07-05-24**

Class : **B.E. 3/4**   Time: **11.40 AM -12.40 PM**

Section: **A**

Sem: **VI**

Academic Year : **2023-24**

Set-I (1602-21-733-005,012,013,020,026,029,032,036,037,063)

Q.No.	Description of the Question	Marks	BTL (1/2/3/4/5/6)	Mapped	
				CO	PO
1	Develop an app to monitor the weather data for a particular city based on input from the user and generate graphs or other visualization techniques to show the data appropriately to the user. Design a REST based API to access whether data and give notifications to the user at regular intervals.	3	3	4,5	1,2,3
2	Develop an application to provide status of Conference Rooms or Meeting Rooms availability in the Real-time and Teams can plan their meetings effectively and would make optimum use of meeting rooms in any office avoiding unnecessary wait time. Use ThinkSpeak cloud for integration.	2	3	4,5	1,2,3

SET-II (1602-21-733-001 to 004, 006,007,008)

Q.No.	Description of the Question	Marks	BTL (1/2/3/4/5/6)	Mapped	
				CO	PO
1	Develop an application to track a baggage using an appropriate protocol. Update the location of bag at regular intervals on to the Thinkspeak cloud. Send notification to the appropriate user whenever the baggage location changes.	5	3	4, 5	1,2, 3

SET-III (1602-21-733-009 to 011, 014 to 017)

Q.No.	Description of the Question	Marks	BTL (1/2/3/4/5/6)	Mapped	
				CO	PO
1	Build an intruder alert system using a Raspberry pi 3. Use PI Camera and write program to control and watch live video being captured by this camera on the Smartphone from anywhere on the planet.	5	3	4, 5	1,2, 3

SET-IV (1602-21-733-018,019,021 to 025)

Q.No.	Description of the Question	Marks	BTL (1/2/3/4/5/6)	Mapped	
				CO	PO
1	Develop an app to monitor the weather data for a particular city using REST API and give notifications to the user at regular intervals.	5	3	4, 5	1,2, 3

SET-V (1602-21-733-027 to 028, 030,031, 033 to 035)

Q.No.	Description of the Question	Marks	BTL (1/2/3/4/5/6)	Mapped CO	PO
1	Develop an application to Multi-Language Voice Control IOT Home Automation Using Google Assistant and Raspberry Pi.	5	3	4, 5	1,2, 3

SET-VI (1602-21-733-038 to 044)

Q.No.	Description of the Question	Marks	BTL (1/2/3/4/5/6)	Mapped CO	PO
1	Design a gesture control based surveillance robot to capture the images and upload them on to cloud db firebase.	5	3	4, 5	1,2, 3

SET-VII (1602-21-733-046 to 049 051, 052 to 054)

Q.No.	Description of the Question	Marks	BTL (1/2/3/4/5/6)	Mapped CO	PO
1	Develop an IoT based application to change the position of the antenna from a remote location.	3	3	4, 5	1,2, 3
2	Design a case study where digital twinning could help the industry to automate things. Write a report on how United Technologies and General Electric are utilizing this technology in their products	2	3	4, 5	1,2, 3

SET-VIII (1602-21-733-055 to 061)

Q.No.	Description of the Question	Marks	BTL (1/2 /3/4 /5/6)	Mapped CO	Mapped PO
1	Write a client-server based application using MQTT & AMQP, read data from 2 sensors based on the data read apply conditions to initiate an action on other device. Test the client and server programs on two RPis simultaneously.	5	3	4, 5	1,2, 3

SET-IX (1602-21-733-062, 064 to 067, 135, 136)

Q.No.	Description of the Question	Marks	BTL (1/2 /3/4 /5/6)	Mapped CO	Mapped PO
1	Develop an application to post sensor's data to Firebase realtime database. Write a python script (or HTML / Javascript or Android) which retrieves these posted data from Firebase realtime database using firebase MQTT broker.	5	3	4, 5	1,2, 3

SET-X (1602-21-733-301 to 307)

Q.No.	Description of the Question	Marks	BTL (1/2 /3/4 /5/6)	Mapped CO	Mapped PO
1	Develop an IoT-Enabled Air Pollution Meter as a Dashboard on Smartphone. Use MQTT protocol to send and receive the data.	5	3	4, 5	1,2 ,3