

IOT WORKSHOP REPORT

The IOT workshop was a two day workshop held on 4th and 5th of October 2019.

The workshop was conducted for a national level championship.

Out of the students who participated and were divided into teams, the best performing teams were selected for the national level competition which will be held in Hyderabad in coming Dec or April month.

Each team was provided with the IOT kit which contained the following items:

- ESP8266 node-MCU
- Micro USB
- LED
- Relay module
- DHT11 Sensor
- PIR sensor
- Breadboard
- Jumper wires

As we know

“The Internet of Things (IoT) is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

This workshop provided the updated IOT with all one require to get aware WHAT THE HACK THIS INTERNET OF THINGS IS? ”

The workshop involved the concepts to be taught to the students:

1.INTRODUCTION TO IOT:

- What is Internet of Things ?
- Getting started with IoT
- Introduction to Internet of Things (IoT)
- Why as IOT?
- How IOT became 21st Century Hottest Topic
- How Internet of Things works
- How Things Talk to Internet

2.IOT ARCHITECHTURE

ESP8266 Node-MCU: Hardware Introduction

- what is ESP8266 node-MCU
- Hardware knowledge
- Handshake with ESP8266
- Developing the environment
- Overview about the board

- Popularity & scope

THE PIN DIAGRAM

- Introduction to PIN diagram
- Pin outputs and PIN inputs
- Feature that makes it difficult
- Analog and digital pinout

CONTROLLING THE DIGITAL OUTPUT ENVIRONMENT

- Working : Going its details
- Types
- Programming LEDS
- Making circuits on breadboard & glowing patterns

SENSORS

- what is Sensor?
- How sensors work?
- Knowing your sensors
- Interfacing elements : Pins & values

IOT Based HOMEAUTOMATION

- Creating webpage button
- Adding required WEBPAGE elements
- Controlling devices eg. Lights

CLOUD COMPUTING

- What is cloud computing?
- Cloud architecture
- Popular cloud computing services for sensor management
- Connecting ESP8266 to cloud

INTERACTING WITH CLOUD:

- Interacting with the physical world
- Monitoring sensor data

WEBSERVER:Creating Webserver & Monitoring Data

The following were the projects done by students as a part of the workshop:

1. LED interfacing using GPIO pins.
2. Integrating sensors & reading environmental physical values.

3. Live temperature and humidity monitoring
4. Creating a WebApp for IOT
5. Controlling home appliances like light using webserver
6. Sending analog data on cloud server.

Following were the the list of Participants

Team 1

G Menaka
Anjali Kumari
Chandana K P
Aarthi sharma
Sneha Singh

Team 2

Shridhara Hegde
Narayana Rao nalige
Sarvesh L Viraktamath
Vishwas U S
Anand Shankar

Team 3

Sanjeeva Kumar
Sagar R sankole
Hariharan
Ramyashree P
Shruti A P

Team 4

Pranav CS
Raj Sharma
Pramod BN
Aditya M

Team 5

Poornima BJ
Adil
Nitin
Harshitha R
Arun

Team 6

Shashank m
Shashank MR
Shashank BJ (Bharadwaj)
Vishnu deep P

Team 7

Akash (5th Sem ISE)

Aishwarya (5th Sem CSE)
Yellappa (5th Sem CSE)
Sunil HV (5th Sem CSE)

The following students were short listed as finalist for competition which will be held in 2020 march/ april.

1. Shridhara Hegde
2. Narayana Rao nalige
3. Sarvesh L Viraktamath
4. Vishwas U S
5. Anand Shankar
6. Pranav CS
7. Raj Sharma
8. Pramod BN
9. Aditya M
10. Akash (5th Sem ISE)
11. Aishwarya (5th Sem CSE)
12. Yellappa (5th Sem CSE)
13. Sunil HV (5th Sem CSE)

The event was organized by Prof. Pallavi N , Assistant Professor of Department Of Computer Science and Engineering.

Gallery







