H. K. E. Society's S. L. N. College of Engineering, Raichur

Department of Electronics and Communication Engineering

A Two Day Workshop on "IOT with RASPBERRY PI"

With the view of keeping the students abreast with the latest trends in Internet of things, the Department of Electronics and Communication Engineering conducted a two day workshop on "IOT with Raspberry Pi", in association with Pantech Solution, Bangalore. Students from 5th and 7th semester from the department participated in the workshop.

The workshop was organised by the coordinator Prof. Jalihal V. K., from 12th to 13th of November 2019. The workshop began on 12th November 2019 with Prof. Dr. V. M Viswanatha, Head of Electronics and Communication Engineering Department, extending a heartfelt welcome to the dignitaries, staff members, students and participants of the programme. In his key note address, he advised the faculty member and students to keep up passion of learning and teaching and threw light on the importance of knowledge and its power. He also emphasized on the collaboration of industry and academia. Principal Dr.R Basawaraj,a in his motivational speech emphasized upon the importance of learning new technologies and tools for the students.

The workshop was designed in such a way that students of both 5th and 7th semester could easily understand the principles behind IOTs. The workshop was scheduled on 12th and13^{th} November 2019 which had 4 sessions, with two sessions of 3 hours on each day. Emphasis was laid on Raspberry Pi architecture, Concepts of Embedded system development and Programming.

Students learned to interface peripherals like; LED, Tact switch, DC Motor, Stepper Motor, LCD Display, Accelerometer, IR sensor, Blue Tooth module, Proximity sensor. Students took a lot of interest in the workshop. At the end of session student feedback was collected and most of the students rated workshop as excellent. Students expressed their interest in attending more such workshops in future.

Students performing and practicing programming on Boards during the workshop

A Two Days Workshop on

"IOT WITH RASPBERRY PI"

Workshop schedule   Venue:
Seminar Hall

Sl No	Programme	Time
1	Reporting of the students and faculty coordinators	9:00 am - 9:10 am
2	Arrival of Dignitaries & Seating	9:10 am - 9:15 am
Inaugural Session		
3	Introduction of the workshop and inaugural speech by Dr.V M Viswanata, HOD, ECE	9:15 am - 9:20 am
4	Words of wisdom and inspiration by Dr. R Basawaraja, Principal	9:20 am - 9:25 am
Day-1 12-11-2019 Workshop Session - I		
5	Introduction to IOT, Introduction to Raspberry Pi, Procedure to install os on Raspberry Pi	9:30 am – 11:00 am
6	Introduction to Python, Python basics	11:00 am - 12:30 pm
7	Lunch Break	12:30 pm to 1:00 pm
Day-1 12-11-2019 Workshop Session - II		
8	Python installation	1:00pm – 2:30 pm
9	Program to Blink LED, Installing PHP and HTML packages on Raspberry Pi, Program to read switch, LED blinking using Webpage	2:30 pm – 4:00 pm
10	Queries	4:00 pm – 4:30 pm
Day-2 13-11-2019 Workshop Session - III		
11	Interfacing IR sensors with Raspberry Pi, Hands on IR sensor, Hands on Ultrasonic sensor using of HTTP protocol	9:30 am – 12:30 pm
12	Lunch Break	12:30 pm - 1:00 pm
Day-2 13-11-2019 Workshop Session - IV		
13	Updating the sensor (gas, fire, IR) data to cloud, Home security system package installation, NumPy	1:00pm – 4:00 pm
14	Queries	4:00 pm – 4:30 pm
15	Queries + Session-IV Closing	2:30 pm – 3:30 pm
16	Feedback about the workshop (From Students)	3:30 pm - 3:50 pm
17	Valedictory function, Vote of thanks by Prof. V. K. Jalihal	3:50 pm - 4:00 pm