Two day workshop on Internet of Things (IoT)

A two day workshop on **Internet of Things (IoT)** was organized by Department of Information Technology, MVSREC in association with Smart Bridge Educational Services Private Limited and in collaboration with ITSA, IEEE and CSI on 27th and 28th of September 2016. As IoT is the trending topic in today's world, the main objective of the event was to educate the students about what is **Internet of Things** (**IoT**), its applications and development of IoT Projects.

Workshop details:

Date: 27th and 28th September 2016
Time: 9:30am-4:30pm
Venue: MVSR Engineering College
Resource personal : Smart Bridge Educational Services Private Limited
Number of Participants: 175

Day -1

A Two day workshop on **Internet of Things(IoT) was** started with the lightning of lamp by the HOD of IT, guests and Resource persons. After the invocation, **Mrs.G.KanakaDurgar, HOD IT**, addressed the gathering. She focused on the objective of the program. Later,Mr.Ashwini Kumar**, Assoc. Prof, IT**, spoke about the usefulness of workshop IoT and appreciated the ITSA and the Co-ordinators for organizing the workshop on the booming technology.

Inaugural session of the two day workshop

The session started with an introduction to IoT by the director of SmartBridgeEducational Services Private Limited, Mr.AmarenderKatkam.

Director Mr.AmarenderKatkam taking up the introductory session

The topics covered during the first half session included

- Introduction to IoT and its architecture.
- The difference between automation and smart things.
- Different hardware and software tools used to implement IoT.
- Different protocols needed for its implementation.
- What is the need for IoT.
- Advantages of IoT.
- How data is collected from smart things and placed on cloud.
- How the analysis of collected data adds extra revenue to the companies.
- Applications of IoT for a better way of life.

Participants Listening to Introductory Session

This was followed by practical sessions which lasted for the next one and a half days. The participants got an opportunity to implement basic IoT applications through Arduino Unomicrocontroller. Detailed description of the hardware used was given. PIR Motion sensor was used to gather information about the state of the object. Temperature and humidity of a particular

place were recorded through DHT11 temperature and humidity sensor. Arduino Compatible HC-SR04 Ultrasonic Sensor was used to find the distance at which presence of an object was detected within a stipulated range. Home appliances were connected through Bluetooth and were operated through a mobile application.

NodeMCU, which is an open source IoTplatform, includes firmware which runs on the ESP8266 Wi-Fi SoC and hardware which is based on the ESP-12 module was utilized to achieve connectivity of devices through Wi-Fi. The information gathered was placed on the cloud. Analysis of the information updated on the cloud was obtained through graphs.

Through this workshop the participants were able to acquire knowledge about the latest technological trend.

A few Snapshots of the workshop

During Post Lunch Session on Day 1

Resource persons guiding the participants during Practical lab session Day-1


Participants working on the provided kits during Practical lab session Day -2

he program ended up with a valedictory, where Mrs. J.Sowjanya, Asst.Prof., ITD, Cordinator ITSA and convener of this Workshop briefed about the workshop. **Mrs. Dr. G. Kanaka Durga, HOD ITD ,Mr.Dr.V.ChandraSekhar, Principal, MVSREC and Mr. S.G.S. Murthy, Vice Principal, MVSREC** addressed the gathering**.** The resource persons , organizing team were honored with mementoes. Later Vote of thanks was givenby Mr. D.B.V.RaviSankar, Assoc.Prof, Dept of IT, and also there was Distribution of Certificates.