

## **A Report on Workshop**

### **PROGRAMMING INTERNET OF THINGS (IoT)**

The Department of Master of Computer Applications organized a Workshop on **“PROGRAMMING INTERNET OF THINGS (IoT)”** on 3<sup>rd</sup> November, 2017 for III and V semester students of MCA.

**Dr. M. Mrunalini**, Assistant Professor, Department of Computer Applications, M S Ramaiah Institute of Technology, Bengaluru enriched the participants with basic knowledge of Electronic Circuit Design, Microcontrollers and Programming Languages.

The Internet of Things (IoT) has been known for the last few years due to the advancement of Wireless Technology, Micro Electro Mechanical Systems (MEMS) and the Internet. By connecting “things” in the real world such as cars, buildings, and industrial equipment, IoT promises to revolutionize, how we live and work.



**Dr. M. Mrunalini, delivered a talk on Programming IoT**



**Hands on Session using Arduino Uno and Raspberry Pi Devices**

Dr. Mrunalini provided an insight of various components used in Arduino Uno and Raspberry Pi environment for building devices that can control the physical world, outlined the composition of the Arduino/ Raspberry Pi development boards, working with analog pins and digital pins, controlling LEDs etc. The participants were enriched with IoT experiments working with Sensors such as Analog to Digital convertor, Temperature

and humidity using Arduino Uno and Raspberry Pi. The knowledge and experience acquired in workshop created an awareness among the participants in cutting edge technologies in IoT applications.



**Faculty and Student Participants**

**A Report on One Day Workshop on**

**ANALYTIC TOOLS FOR SQL AND NOSQL DATABASES ON HADOOP**

The Department of Master of Computer Applications organized a One day Workshop on “**ANALYTIC TOOLS FOR SQL AND NOSQL DATABASES ON HADOOP**” on 26<sup>th</sup> April, 2018. The target group was Students of MCA IV Semester. This workshop aims to provide hands-on expertise on tools of Hadoop such as HIVE, CASSANDRA to handle NOSQL databases which allows the students to create successful applications on Apache Hadoop environment.



**Dr. K. Suneetha, HOD-MCA, invites the Resource person Mr. Ramesh Ragala**

With the rapid demand for data analytics has placed pressures on IT industry to provide an infrastructure that could support the requirement and provide them with tools that could enable the users across the business to get answers for what they want. Big data analytics examines large amounts of data to uncover hidden patterns, correlations and other insights. Hadoop and Map Reduce are fundamental tools for working with big data.

**Mr. Ramesh Ragala**, Assistant Professor (Senior), VIT University, Chennai Campus, Chennai provides a high-level introduction to data analytics and their potential in a data-driven organization. He discussed various key concepts and trends on Data Analytic tools, how to set up Hadoop cluster on Fedora - 25, steps to streamline a distributed file processing system using simple programming models etc.,



**Mr. Ramesh Ragala demonstrating Hive Tool**



**Hands on session on Cassandra Tool**

In the afternoon session Mr. Ramesh demonstrated the functionality of Apache Hive - which is an open-source tool for loading and transforming unstructured, structured, or semi-structured data for data analysis and getting better decision insights. Later he shown the Installation set up and Running environment of Hive to work on NOSQL databases on Hadoop and performed sample working operations on Hive tool.

Also, he stated the importance of Cassandra tool, working with Tool-Cassandra of NoSQL databases on Hadoop. Finally, hands on experience on Tool-Cassandra of NoSQL databases. At last, the students posed various questions and got their doubts clarified by the resource person.



**Participants**