

MHRD- IIC Boot Camp on Internet of Things

1. Objective of the Event: The primary objective of this boot camp is to introduce the basic principles, techniques, and applications of IOT. To aware the students conceptually and practically about: How Internet of Things (IoT) is changing everything around us.
 2. About the Program/Event: A Boot camp on Internet of Things for II CSE students by mad Blocks Pvt Ltd by the Department of CSE at KKT & KSR Institute of Technology & Science
 3. Details of External Participants: NIL
 4. Details of Resource Person1 :
 - a. Name: Madhu Parvathaneni
 - b. Address: 256P/2, Pragathi Nagar, Kukatpally, Hyderabad-82
 - c. Qualification: M. Tech
 - d. Designation: Director, mad Blocks Technologies Pvt Ltd
 - e. No of Patents:
 - f. No of Publications:
 - g. Years of Experience: 10
 - h. Awards: Intel award for promoting technology in higher education
- Details of Resource Person 2:
- i. Name: B Archana
 - j. Address: 256P/2, Pragathi Nagar, Kukatpally, Hyderabad-82
 - k. Qualification: M.Tech
 - l. Designation: Developer, mad Blocks Pvt Ltd
 - m. No of Patents: NIL
 - n. No of Publications: NIL
 - o. Years of Experience: 6
 - p. Awards:
5. Venue of the Event: Seminar Hall, KKR & KSR Institute of Technology & Sciences
 6. Date & Time of the Event: 12-09-19, 10:00 AM to 5:00 PM
 7. No of Students Participated: 184
 8. Year, Branch & Section of Students: II Year, CSE A, B, & C
 9. No of Faculties Participated: 8
 10. One Student Member Feed Back:

I am M. Keerthi Teja Sri (18JR1A0579) of II CSE – Section II and I am very happy to share my experience of the Boot Camp on Artificial Intelligence. First of all I would like to thank our management and Department of CSE for arranging such a wonderful workshop and one of the latest areas of technology. Resource persons P. Madhu and B. Archana gave their best to the students and enlightened students with their sound knowledge on Internet of Things. This is a great way to being IOT by using the very popular Arduino board. By doing this IoT workshop I learned to develop an electronic device that can sense the temperature/ humidity changes and send updates to the cloud for storage and analysis. The user can access the data and analyses it from a remote location. It can be programmed in such a way that the user will get an email and sms update based on a threshold value that they set. During the Bootcamp we got hands-on experience on the following components,

1. **DHT Sensor** – It will detect the temperature/ humidity changes in the environment
2. **Arduino Uno** - It will act as the brain of the system and processes the data from the sensor

3. **Wi-Fi Module** - This will be used to integrate the system onto cloud and send updates to user

Optimum utilization of energy and resources can be achieved by adopting this technology and keeping the devices under surveillance. We can be alerted in case of possible bottlenecks, breakdowns, and damages to the system. Hence, we can save money by using this technology. All the applications of this technology culminate in increased comfort, convenience, and better management, thereby improving the quality of life.

11. Promotion of the Event on the Social Media Website: Yes

12. Promotion of the Event on the University/College Website: Yes

13. Event Photographs:



14. 1-2 minutes video of the Event:

<https://drive.google.com/open?id=1G-14TztMD1CLdr9jAO9iUcrpFkMqvWEY>Benefit in terms of learning/Skill/Knowledge obtained:

IoT encourages the communication between devices, also famously known as Machine-to-Machine (M2M) communication. Because of this, the physical devices are able to stay connected and hence the total transparency is available with lesser inefficiencies and greater quality. Due to physical objects getting connected and controlled digitally and centrally with wireless infrastructure, there is a large amount of automation and control in the workings. Without human intervention, the machines are able to communicate with each other leading to faster and timely output. It is obvious that having more information helps making better decisions. Whether it is mundane decisions as needing to know what to buy at the grocery store or if your company has enough widgets and supplies, knowledge is power and more knowledge is better.

The second most obvious advantage of IoT is monitoring. Knowing the exact quantity of supplies or the air quality in your home, can further provide more information that could not have previously been collected easily. For instance, knowing that you are low on milk or printer ink could save you another trip to the store in the near future. Furthermore, monitoring the expiration of products can and will improve safety. As hinted in the previous examples, the amount of time saved because of IoT could be quite large. And in today's modern life, we all could use more time.

The biggest advantage of IoT is saving money. If the price of the tagging and monitoring equipment is less than the amount of money saved, then the Internet of Things will be very widely adopted. IoT fundamentally proves to be very helpful to people in their daily routines by making the appliances communicate to each other in an effective manner thereby saving and conserving energy and cost. Allowing the data to be communicated and shared between devices and then translating it into our required way, it makes our systems efficient. The IoT allows you to automate and control the tasks that are done on a daily basis, avoiding human intervention. Machine-to-machine communication helps to maintain transparency in the processes. It also leads to uniformity in the tasks. It can also maintain the quality of service.

15. Expenditure Amount: 1,00,000/-

16. Remarks: This Boot camp on Internet of Things was completed successfully and all the students participated enthusiastically and at the end of the workshop each batch of students came up with an innovative idea and explained about it.

17. Experiences and Output of the Session:

Output of this Bootcamp as shared by the experiences of the participants is consolidated and is as follows: students gained on topics basic principles, techniques, and applications of IOT. These topics are closely related with each other. For example, the knowledge acquired through learning can be used to develop an electronic device that can sense the temperature/ humidity changes and send updates to the cloud for storage and analysis. The user can access the data and analyze it from a remote location. It can be programmed in such a way that the user will get an email and sms update based on a threshold value that they set.