NARAYANA ENGINEERING COLLEGE::NELLORE

Permanently affiliated to JNTUA Ananthapuramu, Approved by AICTE,
Accorded 'A' grade by Govt. of AP, Recognized by UGC 2(f) & 12(B),
ISO 9001:2015 certified Institution, Approved with 'A+' Grade by NAAC

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A REPORT ON "IOT APPLICATIONS 7 CHALLENGES"

1	Name of the Activity/Event	Value Added course on "**IOT Applications and Challenges**"		
2	Date of Activity/Event	**10th October 2019 to 28th October 2019**		
3	Organized by	**Department of Electronics And Communication Engineering**		
4	Place of Activity/event	Visvesvaraya auditorium		
5	Resource persons / guest / organization	**Dr. K.MURALI, Professor and Head of ECE Department, Narayana Engineering College,Nellore**		
6	Type of activity/Event	Value Added Course		
7	Activity/Event objectives	• This course aims at providing an opportunity for students to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society. • This program serves as a platform for students to work with the recent trends in IoT.		
8	Participation	Students	Faculty	Total Participation
		69	-	69
9	General remarks	1. Learn the concept and architecture of IoT 2. Understanding IoT components 3. IoT related protocols 4. Wireless technologies used in IoT enabled systems 5. Explanation on IoT domain related to Hardware, Sensors and connectivity protocols. 6. Walking through various connectivity methodologies.		
10	Suggested Improvements	Need Hands-on session and more real time examples.		
11	Enclosures	1. Program report with Snapshots 2. Attendance sheet 3. Certificates 4. Brochure		
12	Signature of Incharge/Convever			

The **E**lectronics and **C**ommunication **E**ngineering department has organized a **Value added course** on **"IoT Applications & Challenges"** from **10th October 2019 to 28th October 2019**. The resource person was Dr.K.Murali, Professor & HOD of ECE Department, Narayana Engineering College, Nellore. The III B.Tech students from the ECE department have attended this value added course.

The resource person shared his insights, real life scenarios, practical use cases and their solutions on the Internet of Things. The course started by providing real IoT experience at the registration desk itself – when students mobile flashed up with the workshop welcome screen on their arrival at the registration desk.

On the first day the Session started with keynote lecture on IoT and future of connected world. It also provided the insights of IoT applications for smart home, smart cities, smart lights, smart retails, smart phones, energy issues, health and life style and car connect.

The next session began with how the proliferation of connected devices and the Technology capabilities is transforming the industry with cloud data. He also discussed the various areas of IoT analytics application and World of Wearable Applications which includes Health Care, Smart Appliances and Wearable Technology.

The following session continued with the Computing Trends which includes Pre Computer Era, Wired Computing Era, Wireless Computing Era and Web of World. Working of IoT which includes Sensors & Actuators, its Connectivity with the people and Processes were discussed. To illustrate the concept of computing more lucid, he shared videos on technologies related to it

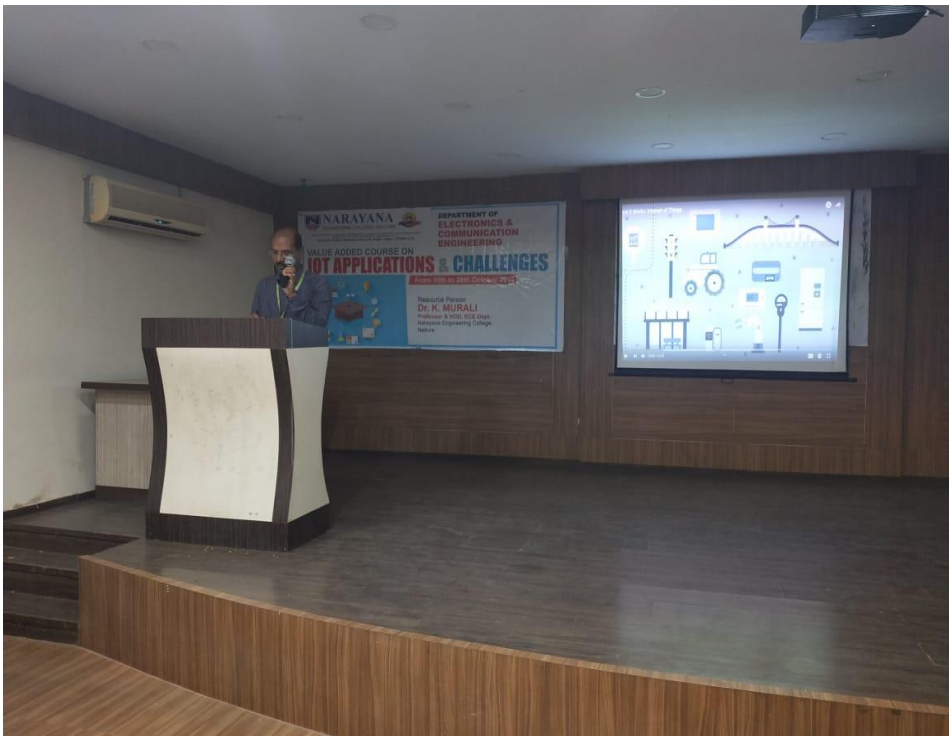
In the later sessions, he discussed Four Layers Model of IoT i.e., Integrated Applications, Information Processing, Network Construction and sensing & identification. He also discussed current status and future prospect of IoT.

IoT Security which includes mobile security, access control, authentication, privacy, Policy Enforcement, Secure Middleware and Confidentiality were discussed with real time examples and the session was

made really interactive by providing an opportunity to suggest a solution to real life scenario.

Later on the course was planned to provide hands on experience with IoT device and application. Students were introduced to the wifi concept from a programming point of view and its relevance to IoT device. All the students participated in coding for accessing light, blinking of LED and sensing a key pressed on IoT kit though android application.

Resource Person explaining the importance of IoT



Explaining the challenges & Applications of IOT

Enlightening the Young Minds about the importance of IoT in real world

At valedictory ceremony, the participants were awarded the certificates and provided with the wifi enabled IoT kit to continue their journey with IoT. The course came to an end with a group photo session.