3) Workshops

1. A Five Days Workshop on "INTERNET OF THINGS"

Internet of Things (IoT) is a new revolution of the Internet and a hot technology worldwide. Government, academia, and industry are involved in different aspects of research, implementation and business with IoT. IoT cuts across different application domain verticals ranging from civilian to defense sectors. These domains include agriculture, space, healthcare, manufacturing, construction, water, and mining, which are presently transitioning their legacy infrastructure to support IoT. A device become a smart device is called IOT. Now a days there are many android and server based application. In this system, value of sensor (e.g. temperature sensor, motion sensor, accelerometer sensor etc.) will be shown on GUI or web server or android application through wireless communication and device will be controlled automatically. Device will be operated on Wi-Fi / GPRS.

OBJECTIVE:

The workshop has been designed with the following objective:

- Provide introduction to Internet of Things (IoT)
- Exposure to various sub-fields and technology stacks of IoT
- Enable people to convert their IoT product idea into a working prototype
- Provide thorough working knowledge of the Raspberry Pi Platform
- Bring-up entrepreneurs and innovators by supporting them with investment and mentorship

WORKSHOP BENEFITS:

- Current scenario/job opportunities of embedded industries.
- Understanding the skill set required in a new employee in embedded industry.
- Understanding the robotics future and scope Understanding the different microcontroller available in the industry & their use.
- In-depth knowledge on design, construction and programming concepts involved in building an autonomous robot Learn & Interact with renowned Industry Experts.

TARGET GROUP:
Student with innovative ideas and aspire to become an entrepreneur are eligible to attend the workshop.

**No of Students Participated:** 32

**Duration:** Five Days: 20 to 25 Mar 2017

**TOPICS Covered:**

- Introduction to the Internet of Things
- The Basics of Sensors & Actuators
- Basic IOT Architecture
- The IoT Platforms Available
- MSP430 Board Layout & Architecture
- Programming fundamentals (C language)
- MSP430 Programming & Interface of Sensors
- Interfacing sensors with MSP430
- Programming MSP430 & Reading from Sensors

**Resource Persons:**

1. **Mr. Fayaz**, Training Director, Ethnotech Academic Solutions, Bangalore.
2. **Mr. Harish**, Software Developer, Ethnotech Academic Solutions, Bangalore.
2. A Two Days Workshop on “MOBILE APP DEVELOPMENT”

Mobile application development platforms have become an important medium for software content delivery and distribution. The aim of this workshop is to give the students a conceptual and practical introduction to developing software applications on the Android mobile platform. Since the programming language used for Android-app development is Java, the first session for the workshop will primarily concentrate on programming in the Java language and then move onto developing Java-apps on the Android platform.

The workshop will give students an introduction to the Java language in general and Android app development in specific but hopefully the lessons learned and the skills gained can (to some extent) translate into programming for other mobile platforms as well.

OBJECTIVES:

- Have a basic understanding of how Android applications work, their life cycle, internal structure and environment.
- Be comfortable with the Android development stack / environment and the workflows involved in application development for this platform.
- Have designed and developed an Android application project.

TOPICS:

- A brief history of Android
- Introduction to the Android OS architecture
- Android Development Stack and how to setup
- Designing and developing android apps
- A Java crash course in the Android app development context
- The Android SDK
- Introduction to Activities, Views and Layouts
- Resources, Assets, Intents and Manifests
- Emulator and Various Tools
- Finalizing the course project app
- Development of simple applications

Target Group:
All B.Tech students are eligible for attending the workshop on “Mobile App”. The Basic requirement for participation is knowledge in C programming.

**No. of Students Participated:** 39

**Duration:** 6 & 7 June 2017

**Resource Person:**

1. G.NETHRAVATHI, APSSDC

2. K.NARMADA MANI, APSSDC

3. “Project Idea Development & Execution”

Mr. Narayanacharlu (G C member) and Dr.C V S N Reddy( R&D team lead in HP and IBM for Past 20 years) are the invitees for a workshop “**Project Idea Development & Execution**” on **04-02-2017**, Dr.C.V.S.N.Reddy explained the way of project idea development, execution project in Industry and R& D labs to all the students. He shared his invaluable 20 years of experience with students and faculty. **Mr.Narayanacharyulu** motivated the students to become Entrepreneurs rather than employees. He also mentioned every problem to be converted as an opportunity to shape our future. He inspired all the students with his real time experiences and success as a Founder chairman of Radiant Info Systems, Bengaluru.
4. “Entrepreneurship Orientation Program”

A Two Days National Level Workshop on “Entrepreneurship orientation Program” on 21st and 22nd September-2017,

Resource Persons:

1. Prof. Raman Gujral, Regional Head, EDII Bengaluru
2. Mr. Yasaswinag, Associate Professor, EDII Bengaluru

The program was aim at creating awareness on the need and importance of entrepreneurship in the changing socio-economic environment and imparting knowledge and skill in diverse training methods to students and teachers, developing skills in guiding and counseling students and planning a curriculum and developing teachers with an entrepreneurial mindset.

No. of Students Participated: 140