

2 Days Workshop on “Internet of Things with Android”

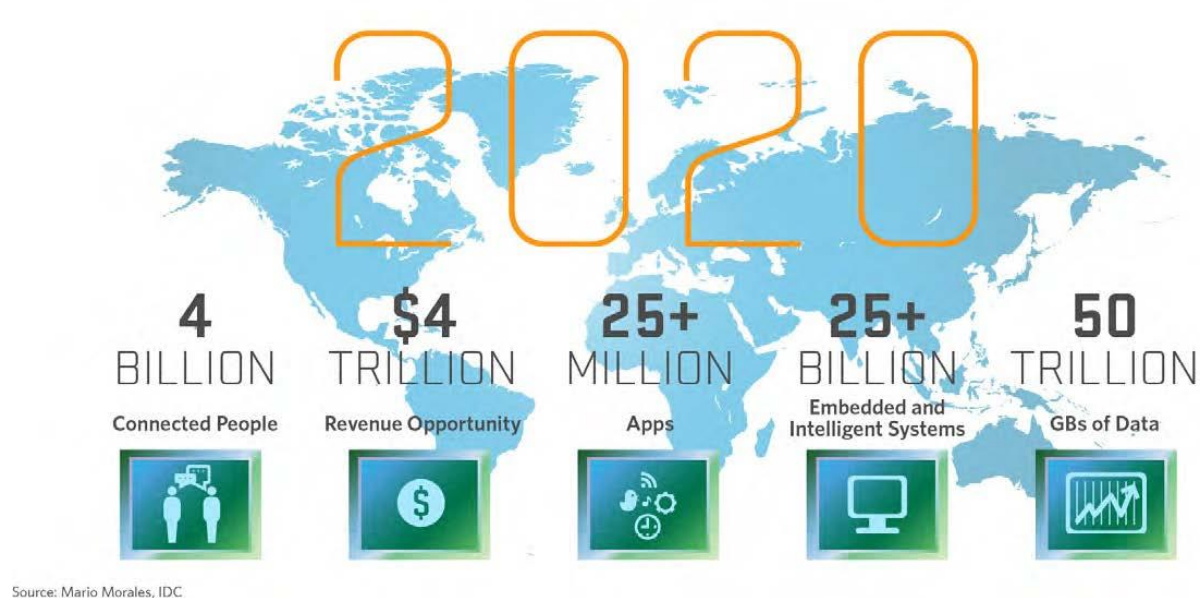
Designed and executed by:



About:

When we talk about the Internet of Things, it's not just putting RFID (**radio frequency identification**) tags on some dumb thing. It's about embedding intelligence so things become smarter and do more than they were proposed to do. Can you imagine a computing concept where everyday objects have network connectivity? Is it possible for ordinary devices to communicate among themselves?

Yes!! And the answer is 'the Internet of Things'.



This Network of networks extracts and makes sense of data within machines. An estimated of 50 Billion wireless devices are to be connected to the internet in future. Interesting! Isn't it?

How beautiful it is when your door can update its **Facebook Status** every time someone opens it. A song starts playing when you **tweet** about it. A fire sensor that automatically send an E-Mail to the fire department. A bulb, fan and A.C can be switched 'ON' or 'OFF' by scheduling the time simply by pressing on app button. Keeping all the awesomeness in mind Varistor has introduced the Internet of things workshop to get you ready for the future.

You'll learn the basic concepts and features of the Internet of Things and build the projects by utilizing the Arduino platform. You'll discover fundamental concepts of cloud computing, sensor reading and connecting the Arduino to the Internet, wireless interfaces and controlling things with Android phones. You'll also learn to use the most popular open platforms for managing sensor data from the Arduino, how to trigger actuators remotely, and how to read information on your Android Smart Phones.

As part of this workshop you will be building:

- What is “Internet of Things” means and how it relates to Cloud computing concepts
- How open platforms allow you to store your sensor data in the Cloud
- The basic usage of the Arduino environment for creating your own embedded projects at low cost
- How to connect your Arduino with your Android phone.
- How to send data to the Internet and talk to the Cloud.
- How to build android app basics
- Controlling of Led bulb from android app.
- Control a Relay Switch by texting from your Phone.
- The workshop has been designed in a comprehensive manner to cover basics as well as advanced concept. This is a must attend workshop for Developers, Engineers, Tech Leads, Tech Architects, Technical Managers and Program Managers to get a hands on experience of the technology and get started with IoT development.

Top 5 Reasons to learn Internet of things:

- 4.5 Million Jobs to be generated for IOT’s trained professionals in India by top companies by 2018.
- Learn about android App development, JQuery, Arduino, Python and programming.
- Work on real time live projects. Improve knowledge and career prospects by learning about new technologies in mobile and web.
- Get trained by well experienced industrial Subject Matter Experts and researchers in India.
- Lots of innovation projects are running throughout the world in IoT.

Course outline:

1. Introduction –
 - a. What is IoT ?
 - b. What is requirement, applications and Technological Trends?
 - c. Which devices and communication techniques?
 - d. Cloud Computing
 - e. Communication of Things
 - f. Examples of communication of things.
2. Introduction to Embedded Systems & Peripherals.
 - a. Hardware
 - b. Launchpad details description
3. IDE (Integrated Development Environment)
 - a. Installation of software's and connection of Microcontroller.
 - b. Simple Example to check the connectivity and loading.
4. Getting Started with basic programming –
 - a. Algorithms
 - b. Conditions
 - c. Loops
 - d. Detailed explanation of Sample program.
 - e. Modified program with functions, conditions, Loops and Delay.
5. Introduction to android –
 - a. What is android?
 - b. Android versions
 - c. Platform Architecture
 - d. Android Activities life cycle
 - e. How is Android different from iPhone, Symbian, or Blackberry?
 - f. Advantage and disadvantage.
6. Installation of the Android Studio.
7. Android Studio Activity
 - a. File structure of android studio
 - b. Drag and drop option to create GUI
 - c. About new activities
 - d. About virtual device and many more
8. Basic programming and explanation in android studio –
 - a. Use toast to show messages in alert box or in pop-up box
 - b. Use text fields and buttons
 - c. Run or debug the program, etc.
9. Explanation of Bluetooth Library in android studio and its uses.
10. Bluetooth Hardware Setup.
11. Bluetooth Connectivity programming.

12.Demo

- a. Bluetooth Connectivity Final Output and Problem Resolution.
- b. Music Visualizer & Remote LED strip Control

***Students will be working towards a live project and will be solving a real problem to make smarter homes and smart cities.**

***All students will be getting a certificate of participation in association with Varistor by the end of the 2 day Internet of things with android workshop.**

SCHEDULE:

- The host Venue/College can select any dates for the workshop.
- Dates should be discussed in prior with the Varistor team members and is subject to revision based on mentor availability.

CERTIFICATION POLICY:

- Below certificates will be awarded by Varistor Technologies.
 - Certificate of Participation to all student participants of the workshop after successful completion.
 - Certificate of Coordination to student coordinators for successful coordination of the workshop.
 - Certificate of honour to Host College for encouraging and supporting Internet of Things.

Eligibility:

There are no prerequisites for joining this workshop. Anyone interested, can join this workshop. While a basic C Programming would be helpful, it is not compulsory. Students from Electronics, Electrical, Instrumentation, CS/IT or from any branch can attend this workshop.

FEES: Rs. 1500 /- Per participants

REQUIREMENTS and BENEFITS:

- Computer Lab for 2 Days duration with a seating capacity of 100 – 150 students equipped with windows system and projector.
- Good Quality public address system ideally two cordless mikes will be required. One small stereo jack cord to connect in laptop for its sound system.
- *Pick and Drop facility from the nearest railway station/bus stop/airport for the experts/trainers of workshop.
- *Accommodation for 2 Guest and experts during the program.
- The host college should provide 2 student coordinators and one faculty/Council member coordinator to manage the 2 day hands on session.
- The Host College will be part of the national publicity to over 5 lakh+ engineering students.
- Host College can do pre-event and post event newspaper announcement on Internet of Things with android workshop.
- Privilege to become the exclusive workshop partner conducted by Varistor. Branding benefits via on website, online partners, press release in your city which will help college/institution in admissions.
- Host college name in all the posters and certificates as college partner.

*If the host location is nearby Bangalore, then not required

Registration Link: [Click Here](#)

Contact Us:

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