# TECHNOLOGY LEARNING CENTER

.. Finishing School for Engineer's

#### WORKSHOP ON ANDROID APP DEVELOPMENT & MOBILE COMPUTING



It is a two day training program focused on development of Mobile Applications using the Android OS platform. This is mainly intended to those students who are enthusiastic in app development, benefiting in their professional career. This course enables them to understand the architecture, API and techniques to create robust, high performance and appealing applications for the Android devices. Keeping in mind the industrial requirement for android developers which is skyrocketing, this module provides them with the right launch pad to establish as an Android Developer.

#### Design Principles:

These design principles were developed by and for the Android User Experience Team to keep users' best interests in mind. Consider them as you apply your own creativity and design thinking.

Android system UI provides the framework on top of which you build your application. Important aspects include the Home screen experience, global device navigation, and notifications.

NOTE: The Android Training will be on latest version of Android 4.1 i.e., Jelly Bean



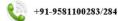


#### Workshop Schedule:

#### DAY 1

#### Session 1

- > Introduction of Android
- > Logo of Android
- > History of Android
- > Versions of Android
- > Installation of Android Software
- > Introduction of OOPS
- > Creating Emulator i.e., Android Virtual Device
- ➤ Introduction to XML Programming[screen Designing]
- > Introduction to Development Tools
- > 'Simple Input Output' App Development



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#### Session 2

- ➤ Widget Tool Box
- > Overview of Layouts
- ➤ Views Displayable & UI
- > Android Java Programming
- > Activity Creation & Implementation
- > Object Linkage between XML & Java
- ➤ User Interface Listeners & Enablers
- > 'UI-Detection' App Development
- ➤ Intent
- Overview of Manifest File
- > Navigating from one screen to other screen
- > Toast Notification



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#### DAY 2

#### Session 1

- > Overview of List Views
- > Array Adapter creation
- > Implementation of Spinner
- > Implementation of Auto CompleteText
- > Implementation of Grids
- Mobile Search Engine App
- ➤ Library App

#### Session 2

- > Overview of Dialog
- Dialog Creation
- > Types of Dialogs
- > Simple Alert



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- > Progress Alert
- Custom Alert
- ➤ List Alert
- > Telephony Interface i.e. Calling
- > SMS
- ➤ Web Browser creation
- > Import and Export Applications
- > .apk files to android mobile(Live Testing)
- ➢ 'Instant Calling & Web Connect App'





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#### Take Away for the participants:

- > Till recent past, students are familiar with Editors i.e., Notepad, Edit Plus, Now they will learn new Environment i.e. IDE (Integrated Development Environment). Software Industry uses different IDEs to develop Real-time Projects.
- > By learning IDE, students may get more interest on Java platform & in future they can try to develop their Academic Projects with this knowledge.
- They can develop their own Apps on hands.
- > Depending on the mobile version, they can dump Apps into their mobile devices.
- > They will get hands-on experience on Android Platform of Latest Version 4.1 i.e., Jelly Bean.

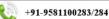
#### Benefits of the participants

- > Certificate of Participation to all Participants from Technology Learning Center
- > Free Softcopy of workshop content
- > Technology Learning Center summer training redemption coupon

#### Our Requirement for the program:

- Minimum of 50 teams for conducting the workshop
- One Computer CD-ROM drive for each team or students are requested to get their lapton preferably with Windows OS.
- LCD projector and microphone PA system.
- Seminar hall or computer lab for conducting the workshop.





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#### Workshop Duration:

• 2 Days [7 Hours/Day]

#### Pre-requisites:

The modules are designed in order to cater the basics of Robotics and coding however following prerequisites will be an added advantage.

- Basic knowledge of NETWORKING.
- Basic of OPARATING SYSTEM.

