



# Android+VR

Programming & development

Course Curriculum



## **ANDROID APPLICATION DEVELOPMENT**

The course contents are as follows:

### **Course Details**

#### **Day-1:(Session-1, 3hrs before lunch break)**

- **What Is Android?**
  - Brief Introduction of Android Device Programming for Android
  - Open Handset Alliance and Features
- **Installing the Android SDK**
  - Brief Introduction of Android Device Programming for Android
  - Installing the Android
  - Configuring the Android Plug-in for Eclipse
- **Android Stack(Architecture)**
  - Linux Kernel
  - Native Libraries
  - Dalvik Virtual Machine App Framework
- **Hello World Application**
  - Creating the first Android Application
  - Running the application on Android emulator
  - Hello World App on Android Emulator

#### **Day-1:(Session-2, 5hrs after lunch break )**

- **Main Building Blocks**
  - Default Packages
  - Activities
  - Activity Life Cycle



- Intents
- Content Providers
- Broadcast Receiver
- **Intent Filters in Android**
  - Role of filters
  - Intent matching Rules
  - Filters in your Manifest
- **Working on and Preparing Android User Interface**
  - XML Layout Files
  - Views and Layouts
  - Setting Content View
  - Basic UI Components(Buttons,EditText,ListView,AutoCompleteTextView,Spinner)
  - Performing and Handling user events

#### Tea Break

- **Android Apps Building**
  - Declaring Variables
  - Using Text View for values to be printed
  - Using Conditions
- **Designing an Application**
  - Implementation of Widgets
  - Using Radio Buttons
  - Use of different types of Android Themes

#### Day-2:(Session-1, 4hrs before lunch break)

- **Android Layout Understanding&Menu**
  - Linear Layout
  - Relative Layout
  - Building PopUp Menu
- **Android: Toast Creation**
  - Creating Standard Toast
  - Setting the position of a Toast on the Screen

#### Tea Break

- **Sensors in Android**
  - How sensors work
  - Types of Sensors
  - Listening to sensor reading
  - Working with Acceleration Sensor
  - Reading X,Y,Z Coordinates
- **Work With Your Android Phone**
  - Get your Apps on Phone.



- Get Connected with Phones
- App Transfer Among Hand Sets

## **Day-2:(Session-2, 4hrs after lunch break)**

- **Broadcast Receiver**
  - Life Cycle of Broadcast Receiver
  - Some System Broadcast
  - Pending Intent
  - Creating messaging application
- **Android Graphics and Multimedia**
  - Playing Audio
  - Playing video
- **Media Player Application using Content Provider**
  - Creating list view to display song list
  - Transfer songs on AVD
  - Play songs on AVD or on your Device

### **Android Advanced Topics (Only Overview)**

- 1) Android Async Task
- 2) Android Webservices
- 3) Android Online Apps
- 4) Targetting mutiple Resolutions

## **Virtual Reality with Android Native – Android Studio**

- Develop professional VR apps using Android Studio
- Run Android Studio applications in VR on a smart phone
- Create a 3D scene
- Select items in the scene
- Move around the 3D world
- Create easy to interact with menus to control application parameters
- Input alphanumeric information (text, numbers)
- Play back regular video
- Panoramic pictures and video