



A two days workshop hosting proposal on **Android Application Development** 



# **Content Outline**

# Session 1

#### **Introduction to Android**

Internet users and Mobile phone users

Open Handset Alliance (OHA)

What is Android?

History of Android

Introduction to Android platform

Android source code structure – packages, external libraries, default apps Android development options – Eclipse, Android SDK

# Getting to know your Android development environment

Downloading Android SDK

Adding ADT-Plugin

Setting the Android environment

What is Android made of

#### Session 2

# **Project Structure**

**Root Contents** 

**Project Files** 

The Manifest

Writing your first Android application

The Activity Part of activity Building,

Running and debugging your Application

Working with Android Simulator

Test your application on device Using XML – based Layout

What is an XML –Based Layout?

Why use an XML – Based Layout?

How does it work Building custom view and layout

#### Services

Creating a Service

Parts of Service

Implementing a Service

Implementing a Interface

Modifying your Manifest's file

Invoking a Service

Connecting to a Service

#### **EISYSTEMS SERVICES**

FF-113, Express Greens Plaza, Sector 1 Vaishali (Ghaziabad) – Delhi NCR India – 201010



### Session 3

#### **User Interface**

Building a User Interface

Overview of Android 's view structure

Android built –in layout

Android built in Views

**Event Handling** 

Using basic Widget

Labels

Button

**Images** 

Radio and Check buttons

Working and Using Containers

**Concepts and Properties** 

Using Menus Using Pop –up messages

#### Intents

**Creating Intent Filters** 

What is an Intent Filters

**Parts** 

**Intent Routing** 

**Narrow Recievers** 

#### **FIRST APPLICATION**

A very simple Phonebook having features like POP ups, drop down, search bar and lot of other things.

# **Session 4**

# **Content Providers**

**Using a Content Providers** 

What is a Content Providers

Making queries

Handling a Content Providers

**Building a Content Providers** 

Database Content Provider

**Content Observer** 

### **EISYSTEMS SERVICES**



# Preferences, Files and Datastores in Android

SQLite Databases usage and running

SQL query from Application

**Data Stores** 

Overview of storing, retrieving, and exposing data Preferences

Files Managing and Accessing Local

Databases Data access over the network

Single Sign on and Sync.

**Account Management** 

Sync Adaptors

# **Operations with Android**

Accessing Location based Services
Mapping with MapView and MapActivity

#### SECOND APPLICATION

An application fully based on Google Maps API, it may be like calculating your own location on Earth using GPS and making products for yourselves.

# **Session 5**

Media APIs Android Media API Playing audio/video Media recording

#### THIRD APPLICATION

Its always better to listen to songs on your own media player. Here participants will be able tomade their own media player



# **Prerequisites & Eligibility**

- This is not a zero level workshop and we are expecting participants to have knowledge
  of Java and object oriented programming however we will start with brushing up of
  Java concepts.
- The course and curriculum of this workshop is more inclined towards Computer Science/Information Technology department however anybody can join this workshop even from different department.
- Participants are expected to bring their laptop (Windows Platform) atleast one in a group of 2/3 for better understanding of practical session in the workshop (Windows OS only).
- Mode of Training/Teaching will be English only.