

# ANDROID APPLICATION DEVELOPMENT

**Course Code – ITCAD001**

**Course Duration: 45 hrs**

## **Objectives:**

The Android Application Development is a hands-on course which is designed for providing essential skills and experiences to the students in developing applications on mobile platform. This course gives the student with knowledge to develop simple mobile applications and to work on layouts, file handling, messaging and location based service applications in mobile. Deploying applications in Google play store.

## **Unit - I: Introduction to Android (8 Sessions)**

Mobile Application development and trends – Android overview and Versions – Android open stack, features; Setting up Android environment (Eclipse Android Studio, SDK, AVD) - Simple Android application development; Anatomy of Android applications – Activity and Life cycle – Intents, services and Content Providers.

## **Unit - II: Layouts, Views and Menus (12 Sessions)**

Layouts: Linear, Absolute, Table, Relative, Frame, Scrollview, Resize and reposition - Screen orientation; Views: Textview, EditText, Button, ImageButton, Checkbox, ToggleButton, RadioButton, RadioGroup, ProgressBar, AutocompleteText, Picker, Listviews and Webview; Displaying pictures with views: Gallery and ImageView, ImageSwitcher, Gridview; Displaying Menus: Helper methods, Option and Context and Shared User preferences.

## **Unit - III: Working with database and PHP (10 Sessions)**

Introduction to MySQL and PHP. Query for different task. Connection with database. Insert, update, and delete data in database. Display data from database in app.

## **Unit - IV: Messaging, SharedPreferences, Location and Deployment (Session 15)**

SMS Messaging: Sending and Receiving – Sending email and networking. Downloading binary and text data files – Access Web services – Local and remote services. Asynchronous threading, communication and binding services. Location based services: Display map, zoom control, view and change, Marking, Geo coding, Get location. SharedPreferences: How to work with it and implement it in app. Publish Android applications and Deployment using Google play store.

## **Reference Books:**

1. Android Application Development - Black Book - Pradeep Kothari
2. Hello Android: Introducing Google's Mobile Development Platform – Ed Burnette