# AMSW24 ANDROID PROGRAMMING

#### **UNIT-1 INTRODUCTION**

- 1.1 Android- Android Versions- Features of Android- Architecture of Android Obtaining the Required Tools Android SDK
- 1.2 Installing the Android SDK Tools Configuring the Android SDK Manager
- 1.3 Eclipse Android Development Tools (ADT)- Creating Android Virtual Devices (AVDs)
- 1.4 Creating Your First Android Application- Types of Android Application- Anatomy of an Android Application

## **UNIT-2 ACTIVITIES, FRAGMENTS AND INTENTS**

- 2.1 Understanding Activities Creating Activities Linking Activities Using Intents Resolving Intent Filter Collision Returning Results from an Intent
- 2.2 Passing Data Using an Intent Object Fragments Adding Fragments Dynamically Life Cycle of a Fragment Interactions between Fragments
- 2.3 Calling Built-In Applications Using Intents- Understanding the Intent Object- Using Intent Filters- Adding Categories- Displaying Notifications.

## UNIT-3 ANDROID USER INTERFACE

- 3.1 Understanding the Components of a Screen- Adapting to Display Orientation Managing Changes to Screen Orientation- Utilizing the Action Bar
- 3.2 Creating the User Interface Programmatically- Listening for UI Notifications- Designing Your User Interface With Views- Using Basic Views- Using Picker Views
- 3.3 Using List Views to Display Long Lists- Understanding Specialized Fragments- Displaying Pictures And Menus With Views
- 3.4 Using Image Views to Display Pictures- Using Menus with Views- Additional Views.

## UNIT-4 DATABASES, CONTENT PROVIDERS AND MESSAGING

- 4.1 Saving and Loading User Preferences- Persisting Data to Files Creating and Using Database
- 4.2 Content Providers- Sharing Data in Android- Using a Content Provider- Creating Your Own Content Providers- Using the Content Provider- Messaging- SMS Messaging- Sending E-mail.

## UNIT V-LOCATION BASED SERVICES, NETWORKING AND ANDROID SEVICES

- 5.1 Location-Based Services- Displaying Maps- Getting Location Data- Monitoring a Location-Project- Building a Location Tracker- Networking- Consuming Web Services Using HTTP-
- 5.2 Consuming JSON Services- Sockets Programming Developing Android Services Creating Your Own Services- Establishing Communication between a Service and an Activity
- 5.3 Binding Activities to Services- Understanding Threading
- 5.4 Publishing Android Applications Preparing for Publishing Deploying APK Files

#### **Reference Books:**

1. Zigurd Mednieks, Laird Dornin, Blake Meike G, and Masumi Nakamura, "Programming Android", O'Reilly books, 2011.