

Devi Ahilya University, Indore, India Institute of Engineering & Technology				ME – I Year (Spl Digital Communication) Semester- B			
Subject Code & Name	Instructions Hours per Week			Credits			
DCR1E3 Mobile Computing	L	T	P	L	T	P	Total
	3	1	2	3	1	1	5
Duration of Theory Paper: 3 Hours							

Objective: The focus of the course is on development and delivery of Android based software for mobile devices

Prerequisites : Programming ability and an understanding of basic JAVA

COURSE CONTENTS

UNIT-1

An Open Platform for Mobile Development, Native Android Applications, Android SDK Features, Introducing the Open Handset Alliance, Introducing the Development Framework, Developing for Android, Developing for Mobile Devices, Android Development Tools

UNIT-2

Creating Applications and Activities, Introducing the Application Manifest, The Android Application Life Cycle, Understanding Application Priority and Process States, Externalizing Resources, Creating User Interfaces, Fundamental Android U I Design, Introducing Views, Introducing Layouts, Creating New Views, Creating and Using Menu s

UNIT-3

Introducing Intents, Introducing Adapters, Using Internet Resources, Introducing Dialogs, Android Techniques for Saving Data, Saving Simple Application Data, Saving and Loading Files, Databases in Android, Introducing Content Providers

UNIT-4

Maps, Geocoding, and Location-Based Services, Setting up the Emulator with Test Providers, Selecting a Location Provider, Using Proximity Alerts, Using the Geocoder, Creating Map - Based Activities, Working in the Background, Introducing Services, Using Background Worker Threads, Introducing Notifications, Using Alarms

UNIT-5

Peer-to-Peer Communication, Introducing Android Instant Messaging, Introducing SMS, Accessing Android Hardware, Using the Media APIs, Camera, Sensor Manager, Accelerometer and Compass, Bluetooth, Android Telephony, Managing Net work and Wi-Fi Connections, Controlling Device Vibration, Advanced Android Development, Paranoid Android, Using AID L to Support IP C for Services, Implementing an AIDL Interface, Building Rich User Interfaces

Books Recommended:

- [1]. Reto Meier, "Professional Android Application Development", Wiley Publication, 2009.
- [2]. J.F. DiMarzio, "Android A Programmer's Guide", TATA McGraw Hill, 2008.