3MCACC4: MOBILE APPLICATIONS DEVELOPMENT

Total No. of Hours: 52   **Hours/Week: 04**

Course Objective: To introduce network, system, techniques and applications in Mobile Wireless Computing.

Course Outcome: Students will be able to

CO1: Understand the basic concepts of Android applications development Environment, Android lifecycle and activities

CO2: Develop applications through Android user interface like Fragments, Widgets, Views, Adapters, Intent and Broadcast receiver

CO3: Implement applications with flat file system and database using SQLite

CO4: Create applications with location based services

CO5: Develop applications for network using Bluetooth and Wi-Fi to publish in Google play store

Unit I	Introduction to Android: Open Platform for Mobile Development - Android SDK Features - Introduction to Development Framework - Android Development Tools - The Application Manifest File - External Resources - The Android Application Lifecycle - Android Activities.	10 hrs
Unit II	**Android User Interface**: Layouts - Fragments - Widgets toolbox - Views - Adapters - Introduction to Intent - Intent Filters and Broadcast receivers - File system Introduction to Android Database - SQLite - Content Providers.	12 hrs
Unit III	**Introduction to Action bar**: Creating and Using Menus and Action Bar Action Items - Introduction to Dialogue, Toast and Notification - Using Speech Recognition - Using Sensors and the Sensor Manager.	10 hrs
Unit IV	Emulator with Location-Based Services: Creating Map-Based Activities - Playing Audio and Video - Using camera, taking pictures and recording video.	10 hrs
Unit V	**Bluetooth and WiFi**: Introduction to Telephony SMS and MMS - Publishing app through Google Playstore - Using Bluetooth and WiFi	10 hrs

REFERENCE BOOKS

[1] Reto Meier, "*Professional Android 4 application Development",* Wiley Publications, 2012

[2] Jerome (J.F) DiMarzio, "*Android -A programmer's Guide"*, Tata Mcgraw Hill, 2010.

[3] Paul Deitel, Harvey Deitel, Abbey Deitel, Michael Morgano, "*Android for Programmers An App-Driven Approach"*, Pearson Education Inc., 2012.

[4]Wei-Meng Lee, "*Beginning android 4 application Development",* John Wiley & sons, Inc, 2012.