

Mobile Application Model – Infrastructure and Managing Resources –Mobile Device Profiles – Frameworks and Tools.

Generic UI Development -Multimodal and Multichannel UI –Gesture Based UI –  
Screen Elements and Layouts –Voice XML.

- i. Implement mobile application using UI toolkits and frameworks.
- ii. Design an application that uses Layout Managers and event listeners.

Memory Management –Design Patterns for Limited Memory –Work Flow for Application development–Java API –Dynamic Linking –Plugins and rule of thumb for using DLLs –Concurrency and Resource Management.

- i. Design a mobile application that is aware of the resource constraints of mobile devices.
- ii. Implement an android application that writes data into the SD card.

Mobile OS: Android, iOS –Android Application Architecture –Android basic components –Intents and Services –Storing and Retrieving data –Packaging and Deployment –Security and Hacking.

- i. Develop an application that makes use of mobile database
- ii. Implement an android application that writes data into the SD card.

## **UNIT V      APPLICATION DEVELOPMENT**

**12**

Communication via the Web –Notification and Alarms –Graphics and Multimedia: Layer Animation, Event handling and Graphics services – Telephony –Location based services

### **Lab Component:**

- i.      Develop web based mobile application that accesses internet and location data.
- ii.     Develop an android application using telephony to send SMS.

**TOTAL: 60 PERIODS**

### **REFERENCES:**

1.      Reto Meier, “Professional Android 4 Application Development”, Wiley, First Edition, 2012
2.      ZigurdMednieks, LairdDornin, G. Blake Meike, Masumi Nakamura, “ProgrammingAndroid”, O’Reilly, 2ndEdition, 2012.
3.      Alasdair Allan, “iPhone Programming”, O’Reilly, First Edition, 2010.