SWE2008	Android Programming	L	T	P	J	C
		3	0	0	4	4
Pre-requisite	**SWE1007**	**Syllabus version**				
		v. 1.0				

Course Objectives:

1. To learn the fundamentals of Android OS Architecture and working principles
2. To understand mobile application development process for Android platform.
3. To comprehend the steps of App design, test, and deployment using Android SDK

Expected Course Outcome:

1. Understand the Android platform, its Architecture and working environment.
2. Learn the Anatomy of an Android app and its core components.
3. Design creative user interfaces for Android app.
4. To learn various storage options in Android to store various types of user data.
5. Apply the software development life cycle to Android app
6. Test an Android app and publish it in the play store
7. Solve real-life problems using android programming
8. Understand industry best practices for mobile app development

Student Learning Outcomes (SLO):	**2,5,17**	
Module:1	**Introducing Android**	**6 hours**
Android Development Environment setup, Essentials of Writing Android Application		
Module:2	**Android Application Basics**	**6 hours**
Anatomy of an Android Application, Application Using the Android Manifest File, Managing Application Resources		
Module:3	**Android User Interface Design Essentials:**	**6 hours**
User Interface Building Blocks, Designing with Layouts, Partitioning the User Interface with Fragments, Displaying Dialogs		
Module:4	**Android Application Design Essentials**	**6 hours**
Android Preferences, Files and Directories, Content Providers, Designing Compatible Applications		
Module:5	**Software Methodology**	**8 hours**
Mobile Development Process, Choosing Software Methodology, Gathering requirements and assessing risks, Configuration Management, Designing and developing Mobile Applications, Testing and deploying mobile applications, Supporting and maintaining mobile applications		
Module:6	**Testing and Publishing**	**5 hours**
Testing Mobile Applications, Android Application Testing Fundamentals, Publishing Android Application		
Module:7	**Android Applications**	**6 hours**
Location and Mapping, Drawing 2D and 3D Graphics, Inter Process Communication, Simple Phone Calls.		

Module:8	**Contemporary issues:** Applications of Android Programming in industry	**2 hours**
.		
	Total Lecture hours:	**45 hours**

Text Book

1. Joseph Annuzzi, Jr., Lauren Darcey, Shane Conder, "Introduction to Android Application Development", Create Space Independent Publishing Platform, Fourth Edition, 2014.

Reference Books

1. Wei-Meng Lee, Beginning Android 4 Application Development, Wrox, 2012
2. Budi Kurniawan. Introduction to Android Application Development, 2014
3. Dawn Griffiths, Head First Android Development, O'reilly, 2015
4. Rajiv Ramnath, Roger Crawfis, and Paolo Sivilotti, Android SDK 3 for Dummies, Wiley, 2011
5. Rick Rogers, John Lombardo, Zigurd Mednicks and Blake Meike , " Android Application Development " , First Edition, 2009.

	Recommended by Board of Studies	12.06.2015		
	Approved by Academic Council	No. 37	Date	16.06.2015