

GUJARAT TECHNOLOGICAL UNIVERSITY

**Subject Name: Advanced Programming on Mobile Devices – II Subject Code: 3735301
Semester III**

Type of course: ME - Computer Engineering (Wireless And Mobile Computing)

Prerequisite:

1. Fundamental concepts of object oriented programming

Rationale: NA

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE (E)	PA (M)	PA (V) ESE	PA (I)		
3	0	2#	4	70	30	30	20	150

L- Lectures; T- Tutorial/Teacher Guided Student Activity; P- Practical; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment;

Content:

Sr. No.	Content	Total Hrs	% Weightage
1	Introduction of android, Why develop for android, Android SDK features, Creating android Activities,	6	10
2	Fundamental android UI design, Intents, adapters, dialogs, Android Technique for saving data,	6	10
3	Data base in Androids, Maps, Geocoding, Location based services,	6	10
4	Toast, using alarms, Instant messaging, Using blue tooth, Using Telephony, Introducing sensor manager,	7	20
5	Managing network and wi-fi connection, Advanced androids development, Linux kernel security, Implement AIDL Interface	7	20

Text Book:

1. Android Application Development by Rick Rogers / O'reilly

References Books:

1. Professional Android Application Development by Reto Meier / Wiley

Course Outcome:

On completion of this Subject, students will have an understanding of

1. The Symbian Android architecture

2. This subject is designed to help developers understand the Android (JAVA) platform and learn how to develop and deliver those vital products that plug-in to the comms architecture. Services built around this architecture will drive the 3G market.
3. The knowledge and application skills to design and implement a Android application.

List of Experiments: (with Open Ended Problems)

1. IntentDemo (Copying User inputted Text to new Screen for each Input upon selection)
2. RelativeLayoutDemo (Multiple Button Should be there)
3. MediaPlayerDemo (Pick song from SD Card)
4. BootDeviceDemo (Turn Off GPS and WiFi on Device Boot Up)
5. LibraryManegementSystem
6. CallBlocker
7. SmsBlocker

Major Equipment's:

Latest Android Mobile phone

List of Open Source Software/learning website:

NetBeans IDE

Eclipse IDE

JDK

SDK

Review Presentation (RP): The concerned faculty member shall provide the list of peer reviewed Journals and Tier-I and Tier-II Conferences relating to the subject (or relating to the area of thesis for seminar) to the students in the beginning of the semester. The same list will be uploaded on GTU website during the first two weeks of the start of the semester. Every student or a group of students shall critically study 2 papers, integrate the details and make presentation in the last two weeks of the semester. The GTU marks entry portal will allow entry of marks only after uploading of the best 3 presentations. A unique id number will be generated only after uploading the presentations. Thereafter the entry of marks will be allowed. The best 3 presentations of each college will be uploaded on GTU website