

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL

New Scheme Based On AICTE Flexible Curricula

Artificial Intelligence & Data Science, VII-Semester

Open Elective-703 (B) Mobile Application Development

Course Objectives:

1. To facilitate students to understand Android SDK
2. To help students to gain a basic understanding of Android application development
3. To inculcate working knowledge of Android Studio development tool

Course Outcomes:

After the completion of this course, the students will be able to:

1. Identify various concepts of mobile programming that make it unique from programming for other platforms.
2. Critique mobile applications on their design pros and cons.
3. Utilize rapid prototyping techniques to design and develop sophisticated mobile interfaces.
4. Program mobile applications for the Android operating system that use basic and advanced phone features.
5. Deploy applications to the Android marketplace for distribution.

Syllabus

Unit I: Introduction to Android: The Android Platform, Android SDK, Eclipse Installation, Android Installation, Building your First Android application, Understanding Anatomy of Android Application, Android Manifest file.

Unit II Android Application Design Essentials: Anatomy of an Android applications, Android terminologies, Application Context, Activities, Services, Intents, Receiving and Broadcasting Intents, Android Manifest File and its common settings, Using Intent Filter, Permissions.

Unit III: Android User Interface Design Essentials: User Interface Screen elements, Designing User Interfaces with Layouts, Drawing and Working with Animation.

Unit IV: Testing Android applications, Publishing Android application, Using Android preferences, Managing Application resources in a hierarchy, working with different types of resources.

Unit V: Using Common Android APIs: Using Android Data and Storage APIs, Managing data using SQLite, Sharing Data between Applications with Content Providers, Using Android Networking APIs, Using Android Web APIs, Using Android Telephony APIs, Deploying Android Application to the World.

Recommended Books:

1. Lauren Darcey and Shane Conder, “Android Wireless Application Development”, Addison-Wesley,2009.
2. Reto Meier, “Professional Android™ Application Development”, Wiley Publishing,2014.
3. Mark L Murphy, “Beginning Android”, Wiley India Pvt Ltd.,2009.
4. Joseph Annucci, Jr, Lauren Darcey and Shane Conder, “Advanced Android™ Application Development”, Fourth Edition, Addison-Wesley,2014.
5. Barry Burd ,“Android Application Development All-in-One For Dummies”, Wiley, 2015.