PARVATHANENI BRAHMAYYA
SIDDHARTHA COLLEGE OF ARTS &
SCIENCE
Autonomous
Siddhartha Nagar, Vijayawada-520010
Re-accredited at 'A+'by the NAAC

Offered to: M.Sc. (Computational Data Science)

CourseName	Mobile Application Development	L	T	P	C	CIA	SEE	TM
CourseCode	22DS4E9	4	0	0	4	30	70	100
Year of Introduction: 2021	**Year of Offering:** 2023	**Year of Revision**: 2023		**Percentage of Revision:** NA				
L-Lecture, **T**-Tutorial, **P**-Practical, **C**-Credits, **CIA**-InternalMarks, **SEE**-ExternalMarks, **TM**-TotalMarks								

Course Descriptive and Purpose: This course is concerned with the development of applications on mobile and wireless computing platforms. Students will work at all stages of the software development life-cycle from inception through to implementation and testing. In doing so, students will be required to consider the impact of user characteristics, device capabilities, networking infrastructure and deployment environment, in order to develop software capable of meeting the requirements of stakeholders.

Course Objectives: This course is designed to facilitate students and understand android SDK, help students to gain a basic understanding of Android Application Development, inculcate working knowledge of Android Studio Development Tool.

Course Outcomes:
On successful completion of this course, the students able to:
CO1: Understand various concepts of mobile programming that make it unique from programming for other platforms.
CO2: Demonstrate the Android API, Design and Deployment of applications to the Android marketplace for distribution.
CO3: Develop design using Rapid Prototyping Techniques, Sophisticated Mobile Interfaces,Mobile Applications for the Android Operating System.
CO4: Analyze Android Applications and its working,Application Resources in a Hierarchy, Working with different Types of Resources.
CO5: Create Mobile Applications on their design pros and cons.

COURSE CODE	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
	CO-PO MATRIX							
	CO1	M	L			H		
22DS4E9	**CO2**			M			M	H
	CO3			H			**M**	
	CO4				H	M		
	CO5	H					**M**	**H**

UNIT-I (12-Hours)

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

UNIT-II (12-Hours)

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 (12-Hours)

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

UNIT-IV (12-Hours)

Testing Android Applications, Publishing Android Application, Using Android Preferences, Managing Application Resources in a Hierarchy, Working with different Types of Resources.

UNIT-V (12-Hours)

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.

Prescribed Text Books			
	Author	Title	Publisher
1	Lauren Darcey and Shane Conder	Android Wireless Application Development	Pearson Education, 2nd ed. (2011)

Reference Text Books			
	Author	Title	Publisher
1	Reto Meier	Professional Android 2 Application Development	Wiley India Pvt Ltd
2	Mark L Murphy	Beginning Android	Wiley India Pvt Ltd
3	Barry Burd	Android Application Development All in one for Dummies	Edition

M.Sc.(Computational Data Science)   **Semester :IV**
Course Code: 22DS4E9Course Name: Mobile Application Development

Time: 3 Hours   **Max Marks: 70**

SECTION-A
Answer the following questions. (5×4=20Marks)

1. (a) Explain Android SDK? (CO1,L1)

(or)

    (b) How do you Manifest file in Android. (CO1,L1)

2. (a) What are Android Terminologies? (CO2,L1)

(or)

(b) What is the use of Intent Filter? (CO2,L1)

3. (a) Name User Interface Screen elements. (CO3,L1)

(or)

    (b) NameUser Interfaceswith Layouts. (CO3,L1)

4. (a) What is Publishing Android application?(CO4,L1)

(or)

    (b) What is ManagingApplication resources (CO4,L1)

5. (a) What is Using Android Networking APIs, (CO2,L1)

(or)

    (b) What isUsing Android Web APIs.? (CO2,L1)

SECTION-B
Answer the following questions.   **(5×10=50Marks)**

6. (a) Explain Eclipse and Android Installation. (CO1,L2)

(or)

    (b) Illustrate how data sources connected to Tableau. (CO1,L2)

7. (a) Experiment Android Application Design Essentials. (CO2,L3)

(or)

    (b) Experiment with AndroidManifest File and its common settings (CO2,L3)

8. (a) Explain Android User Interface Design Essentials. (CO3,L4)

(or)

(b) Draw and Work with Animation. (CO3,L4)

9. (a) ExplainTesting Android applications,. (CO4,L5)

(or)

(b) Explain working with different types of resources (CO4,L5)

10. (a)Discuss Common Android APIs.(CO2,L6)

(or)

(b) Discuss procedure to Share Data between Applications with Content Providers. (CO2,L6)