Course Code	UCS20S03L	Course Name	ANDROID BASICS	Course Category	S	Skill Enhancement Elective	L	T	P	C
							0	0	2	1

Pre-requisiteCourses	Nil	Co-requisiteCourses	Nil	ProgressiveCourses	Nil
Course Offering Department		Computer Science	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:
CLR-1 :	Develop mobile applications
CLR-2 :	Design UI for activities of mobile applications
CLR-3 :	Get familiarized with broadcast receivers and Internet services
CLR-4 :	Work with SQLite Database and content providers
CLR-5 :	Work on interactive activities that comprises an application
CLR-6 :	tested application (using emulator) and export the application to a mobile phone

Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:	Learning			Program Learning Outcomes (PLO)														
		1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Fundamental Knowledge	Application of Concepts	Link with Related Disciplines	Procedural Knowledge	Skills in Specialization	Ability to Utilize Knowledge	Skills in Modeling	Analyze, Interpret Data	Investigative Skills	Problem Solving Skills	Communication Skills	Analytical Skills	ICT Skills	Professional Behavior	Life Long Learning
CLO-1 :	develop android activities that include date, time, toast,	3	80	70	L	H	-	H	L	-	-	-	L	L	-	H	-	-	-
CLO-2 :	develop activities involving interactive components (UI)	3	85	75	M	H	L	M	L	-	-	-	M	L	-	H	-	-	-
CLO-3 :	create activities that makes use of images, sound files	3	75	70	M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
CLO-4 :	able to create a contact list that simulates a kind of the one in mobile phones (SQlite)	3	85	80	M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
CLO-5 :	make use of spinners, progress bar to simulate loading files with respect to size of file , time and speed of network	3	85	75	H	H	M	H	L	-	-	-	M	L	-	H	-	-	-
CLO-6 :	export the activities to the mobile phone and cheer up the work of his own	3	80	70	L	H	-	H	L	-	-	-	L	L	-	H	-	-	-

Duration (Hour)		6	6	6	6	6
S-1	SLO-1	Mobile Application development	Layouts - introduction	Picker view – time picker	Displaying Menus – Options menu	Data persistence
	SLO-2	Mobile Application trends	Linear, Scrollview	Date picker	Program Explanation	Types of Data persistence
S-2	SLO-1	Android overview	Absolute,Table,	Listviews – list view	Context menu	Shared User preferences
	SLO-2	Android versions	Relative,Frame	Spinner view	Program Explanation	Program Explanation
S-3	SLO-1	Android open stack	Resize and reposition	Web view	Helper methods for menus	Managing data using SQLite
	SLO-2	features	Screen orientation	Displaying pictures with views	Program Explanation	Program Explanation

S-4	SLO-1	Setting up Android environment (Eclipse, SDK, AVD)	Views: Textview, EditText, Button, ImageButton	Gallery	SMS Messaging	User defined content providers
	SLO-2	Simple Android application development	Checkbox	ImageView	Broadcasting and service	Program Explanation
S-5	SLO-1	Anatomy of Android applications	ToggleButton, RadioButton	ImageSwitcher	Sending SMS	Location based services: Display map
	SLO-2	Activity and Life cycle	RadioGroup	Simple program for image switcher	Program Explanation	Program Explanation
S-6	SLO-1	Implicit Intent	ProgressBar	Gridview	Receiving SMS	zoom control
	SLO-2	Explicit Intents	AutocompleteText	Simple program for grid view	Program Explanation	Program Explanation

Learning Resources	1.WeiMeng Lee (2012), "Beginning Android Application Development", Wrox Publications 2.EdBurnette (2010), "Hello Android: Introducing Google's Mobile Development Platform", The Pragmatic Publishers, Third Edition	3.Reto Meier, (2012), "Professional Android 4 Application Development", Wrox Publications 4.ZigurdMednieks, Laird Dornin, Blake Meike G, Masumi Nakamura, (2011), "Programming Android: Java Programming for the New Generation of Mobile Devices", OReilly

Learning Assessment					
Level	**Bloom's Level of Thinking**	**Continuous Learning Assessment (100% weightage)**			
		CLA-1 (20%)	**CLA-2 (20%)**	**CLA-3 (30%)**	**CLA-4 (30%) #**
		Practice	**Practice**	**Practice**	**Practice**
Level 1	Remember	10%	10%	30%	15%
	Understand				
Level 2	Apply	50%	50%	40%	50%
	Analyze				
Level 3	Evaluate	40%	40%	30%	35%
	Create				
Total		100 %	100 %	100 %	100 %

CLA – 4 can be from any combination of these: Assignments, Seminars, Short Talks, Mini-Projects, Case-Studies, Self-Study, MOOCs, Certifications, Conf. Paper etc.,

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
Mr. S. Karthik, IT Analyst, Tata Consultancy Services	Dr. Neelanarayanan,, Professor, School of Computer Science and Engineering, VIT Chennai	1. Dr.S.Umarani 2. Mr.U.Udayakumar

Course Code	UCS20S04L	Course Name	VISUALIZATION TOOL	Course Category	S	*Skill Enhancement Elective*	L	T	P	C
							0	0	2	1

Pre-requisiteCourses	Nil	Co-requisiteCourses	Nil	Progressive Courses	Nil
Course Offering Department		Computer Science	Data Book / Codes/Standards		Nil

Course Learning Rationale (CLR):	*The purpose of learning this course is to:*	**Learning**			**Program Learning Outcomes (PLO)**														
		1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-1 :	Analyze and visualize data	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Fundamental Knowledge	Application of Concepts	Link with Related Disciplines	Procedural Knowledge	Skills in Specialization	Ability to Utilize Knowledge	Skills in Modeling	Analyze, Interpret Data	Investigative Skills	Problem Solving Skills	Communication Skills	Analytical Skills	ICT Skills	Professional Behavior	Life Long Learning
CLR-2 :	Navigate to data sources. Download data in proper format																		
CLR-3 :	Create visualizations that accurately represent the source dataset																		
CLR-4 :	Use Tableau to perform various types of analysis on data sets																		
CLR-5 :	Data visualizations that demonstrates an understanding of data																		
CLR-6 :	*Use various methods for data visualization*																		
Course Learning Outcomes (CLO):	*At the end of this course, learners will be able to:*																		
CLO-1 :	Design effective data visualizations in order to provide new insights	*3*	*80*	*70*	*L*	*H*	-	*H*	*L*	-	-	-	*L*	*L*	-	*H*	-	-	-
CLO-2 :	Find and select appropriate data visualization in order to create a better understanding of the data	*3*	*85*	*75*	*M*	*H*	*L*	*M*	*L*	-	-	-	*M*	*L*	-	*H*	-	-	-
CLO-3 :	Create Heat map, word cloud and different type of charts as visualization	*3*	*75*	*70*	*M*	*H*	*M*	*H*	*L*	-	-	-	*M*	*L*	-	*H*	-	-	-
CLO-4 :	Cite data from other sources in visualizations and documentation	*3*	*85*	*80*	*M*	*H*	*M*	*H*	*L*	-	-	-	*M*	*L*	-	*H*	-	-	-
CLO-5 :	Properly document and organize data and visualizations	*3*	*85*	*75*	*H*	*H*	*M*	*H*	*L*	-	-	-	*M*	*L*	-	*H*	-	-	-
CLO-6 :	*Create dashboard for data visualization*	*3*	*80*	*70*	*L*	*H*	-	*H*	*L*	-	-	-	*L*	*L*	-	*H*	-	-	-