Practical Plan

Branch: Computer Engineering
Semester: VI   **Year: 2022-23**

Course Title: **Mobile Computing (CSL603)**	SEE: 2 Hours – Practical
Total Contact Hours: 20 Hours	
Practical Plan Author: **Dr. Ashok Kanthe**	Date: 05/01/2023
Checked By:	Date:

Prerequisites: Computer Networks

Course Outcomes (CO):

On successful completion of course learner will be able to:

CSL603.1: Develop and demonstrate mobile applications using various tools

CSL603.2: Articulate the knowledge of GSM, CDMA & Bluetooth technologies and demonstrate it.

CSL603.3: Students will able to carry out simulation of frequency reuse, hidden/exposed terminal problem

CSL603.4: Implement security algorithms for mobile communication network

CSL603.5: Demonstrate simulation and compare the performance of Wireless LAN

CO-PO Mapping: (BL – Blooms Taxonomy, C – Competency, PI – Performance Indicator)

CO	BL	C	PI	PO	Mapping
CSL603.1.	3	2.4	2.4.1 2.4.2	PO2	1
		5.2	5.2.2	PO5	1
CSL603.2.	2, 3	5.1	5.3.2	PO5	1
		5.2	6.1.1	PO5	1
CSL603.3.	3	1.3	1.3.1	PO1	1
		2.2	2.2.3	PO2	1
		3.2	3.2.2	P03	
CSL603.4.	3	4.1	4.1.1	PO4	1
			4.1.2		1
CSL603.5	3	2.2	2.2.4	PO2	1
		4.1	4.1.1	PO4	1
			4.1.2		1

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CSL602.1		1			1							
CSL602.2					1	1						
CSL602.3	1	1										
CSL602.4	1	1	1									
CSL602.5		1		1								

CO-PSO Mapping:

CO	BL	C	PI	PO	Mapping

	PSO1	PSO2
CSL602.1.	--	--
CSL602.2.	--	-
CSL602.3.	--	-
CSL602.4.	--	-

CO Measurement Weightages for Tools:

Course Outcomes	*Direct Methods (80%)*			*Indirect Method (20%)*
	Lab Performance	Assignments/Post Lab Questions	End Sem Exam	Course exit survey
CSL602.1	30%	20%	50%	100%
CSL602.2	30%	20%	50%	100%
CSL602.3	30%	20%	50%	100%
CSL602.4	30%	20%	50%	100%
CSL602.5	30%	20%	50%	100%

Attainment:
CO CSL603.1:

Direct Method
$$A_{\text{CSL603.1}D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Lab + 0.6 * SEE\_TW$$
Final Attainment:
$$A_{\text{CSL602.1}} = 0.8 * A_{\text{CSL602.1}D} + 0.2 * A_{\text{CSL602.1}I}$$

CO CSL603.2:
Direct Method
$$A_{\text{CSL603.2}D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Lab + 0.6 * SEE\_TW$$
Final Attainment:
$$A_{\text{CSL602.2}} = 0.8 * A_{\text{CSL602.2}D} + 0.2 * A_{\text{CSL602.2}I}$$

CO CSL603.3:
Direct Method
$$A_{\text{CSL603.3}D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Lab + 0.6 * SEE\_TW$$
Final Attainment:
$$A_{\text{CSL602.3}} = 0.8 * A_{\text{CSL602.3}D} + 0.2 * A_{\text{CSL602.3}I}$$

CO CSL603.4:
Direct Method
$$A_{\text{CSL603.4}D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Labs + 0.6 * SEE\_TW$$
Final Attainment:
$$A_{\text{CSL602.4}} = 0.8 * A_{\text{CSL602.4}D} + 0.2 * A_{\text{CSL602.4}I}$$

CO CSL603.5:
Direct Method
$$A_{\text{CSL603.4}D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Labs + 0.6 * SEE\_TW$$
Final Attainment:
$$A_{\text{CSL602.5}} = 0.8 * A_{\text{CSL602.4}D} + 0.2 * A_{\text{CSL603.5}I}$$

Practical Session Plan

Batch	Dates		Remarks
	Planned	*Actual*	
Experiment No. 1			
Implementation of mobile network using network simulator (NS2):create a mobile adhoc network			
A	24/01/2023	25/01/2023	
B	25/01/2023	24/01/2023	
C	23/01/2023	23/01/2023	
D	20/01/2023	27/01/2023	
Experiment No. 2			
To implement a Bluetooth network with application as a transfer of a file from one device to another.			
A	31/01/2023	01/02/2023	
B	08/02/2023	31/01/2023	
C	30/01/2023	30/01/2023	
D	02/02/2023	03/02/2023	
Experiment No. 3			
To understand the cellular frequency reuse concept to find the co channel cells for a particular cell.			
A	07/02/2023	08/02/2023	
B	15/02/2023	07/02/2023	
C	07/02/2023	06/02/2023	
D	09/02/2023	10/02/2023	
Experiment No. 4			
Illustrate hidden terminal problem (NS2)			
A	14/02/2023	15/02/2023	
B	22/02/2023	14/02/2023	
C	13/02/2023	13/02/2023	
D	16/02/2023	17/02/2023	
Experiment No.5			
To implement a basic function of Code Division Multiple Access (CDMA) to test Orthogonality and autocorrelation of a code to be used for CDMA operation.			
A	14/03/2023	22/02/2023	
B	08/03/2023	21/02/2023	
C	13/03/2023		Students were absent
D	23/02/2023		
Experiment No. 6			
To implement GSM security algorithm (A3/A5/A8)			
A	14/03/2023		
B	15/03/2023	21/02/2023	
C	18/03/2023		
D	16/03/2023		
Experiment No. 7			
To develop android application that creates an alert upon receiving message.			
A	11/03/2023		
B	05/04/2023		

C	29/03/2023		
D	23/03/2023		

Experiment No. 8
Set up and configuration of wireless access point.

A	12/04/2023		
B	12/04/2023		
C	10/04/2023		
D	06/04/2023		

Experiment No. 9
To develop an android application that uses GPS location information.

A	13/04/2023		
B	15/04/2023		
C	12/04/2023		
D	12/04/2023		

Experiment No. 10
To develop an application that uses GUI components, Fonts and colors

A	15/04/2023		
B	11/04/2023		
C	13/04/2023		
D	13/04/2023		

Verified by:

Programme Coordinator   Subject Expert