Practical Plan

Branch: Computer Engineering **Year: 2023-24**
Semester: VI

Course Title: **Mobile Computing (CSL603)** DIV-B	SEE: 2 Hours – Practical
Total Contact Hours: 20 Hours	
Practical Plan Author: **Dr. Ashok Kanthe**	Date: 15/01/2024
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	PO2	1
			2.4.2		
		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.	2	2
CSL602.4.	2	2

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

$$A_{CSL603.1D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Lab + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{CSL602.1} = 0.8 * A_{CSL602.1D} + 0.2 * A_{CSL602.1I}$$

CO CSL603.2:

Direct Method

$$A_{CSL603.2D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Lab + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{CSL602.2} = 0.8 * A_{CSL602.2D} + 0.2 * A_{CSL602.2I}$$

CO CSL603.3:

Direct Method

$$A_{CSL603.3D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Lab + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{CSL602.3} = 0.8 * A_{CSL602.3D} + 0.2 * A_{CSL602.3I}$$

CO CSL603.4:

Direct Method

$$A_{CSL603.4D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Labs + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{CSL602.4} = 0.8 * A_{CSL602.4D} + 0.2 * A_{CSL602.4I}$$

CO CSL603.5:

Direct Method

$$A_{CSL603.4D} = 0.3 * Lab\ Performance + 0.2 * Assignment/Post\ Labs + 0.6 * SEE\_TW$$

Final Attainment:

$$A_{CSL602.5} = 0.8 * A_{CSL602.4D} + 0.2 * A_{CSL603.5I}$$

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	24/01/2024	24/01/2024	
B	23/01/2024	23/01/2024	
C	29/01/2024	29/01/2024	
D	25/01/2024	25/01/2024	
Experiment No. 2 To implement a Bluetooth network with application as a transfer of a file from one device to another.			
A	31/01/2024	31/01/2024	UT-1 (5-7 Feb 2024)
B	30/01/2024	30/01/2024	
C	12/02/2024	12/01/2024	Leave.
D	01/02/2024	01/02/2024	
Experiment No. 3 To understand the cellular frequency reuse concept to find the co channel cells for a particular cell.			
A	14/02/2024	14/02/2024	
B	13/02/2024	13/02/2024	15-16 March. Elopting.
C	26/02/2024	12/01/2024	
D	08/02/2024	08/02/2024	
Experiment No. 4 Illustrate hidden terminal problem (NS2)			
A	21/02/2024	28/02/2024	
B	20/02/2024	27/02/2024	
C	04/03/2024	26/02/2024	
D	15/02/2024	15/02/2024	
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	28/02/2024	06/03/2024	
B	27/02/2024	05/03/2024	
C	22/02/2024	04/03/2024	
D	22/02/2024	15/02/2024	
Experiment No. 6 To implement GSM security algorithm (A3/A5/A8)			
A	06/03/2024	20/03/2024	
B	05/03/2024	19/03/2024	
C	11/03/2024	11/03/2024	
D	29/02/2024	29/02/2024	Both. PIM.
Experiment No. 7 To develop android application that creates an alert upon receiving message.			
A	13/03/2024	27/03/2024	
B	12/03/2024	19/03/2024	
C	08/04/2024	18/03/2024	
D	07/03/2024	21/03/2024	
Experiment No. 8 Set up and configuration of wireless access point.			

A	20/03/2024	10/04/2024	
B	19/03/2024	28/03/2024	
C	15/04/2024	18/03/2024	
D	14/03/2024	21/03/2024	

Experiment No. 9

To develop an android application that uses GPS location information.

A	27/03/2024	10/04/2024	
B	26/03/2024	28/03/2024	
C	15/04/2024	08/04/2024	
D	21/03/2024	04/04/2024	1-3 April UT-2

Experiment No. 10

To develop an application that uses GUI components, Fonts and colors

A	10/04/2024	10/04/2024.	06th April Leave.
B	16/04/2024	28/03/2024	
C	15/04/2024	08/04/2024	
D	28/3/2024	04/04/2024	

Verified by:

Programme Coordinator

Subject Expert

15/01/2024.