NM Institute Of Engineering and Technology, Bhubaneswar

DEPARTMENT:CSE

LESSON PLAN: Academic Year 2023-24 (Odd Semester) **COURSE: DIPLOMA** **SEMESTER: 5th**

Subject/Code: MOBILE COMPUTING **Faculty Name: Bebarta Chinmayananda Das**

Sl. No.	Name of the Topic to Cover	Text Book	Teaching Method	Course Progress	Remark
1	Introduction to Wireless networks & Mobile Computing	T1	P		
2	Networks Wireless Networks	T3	G		
3	Mobile Computing Mobile Computing Characteristics	T2	P		
4	Application of Mobile Computing	T2	G		
5	**Introduction to Mobile Development Framework**	T2	G		
6	C/S architecture n-tier architecture	T3	G		
7	n-tier architecture and www	T2	P		
8	Peer-to Peer architecture 2.5 Mobile agent architecture	T1	G		
9	**Wireless Transmission**	T1	G		
10	Introduction, Signals	T3	P		
11	Period, Frequency and Bandwidth	T1	G		
12	Antennas, Signal Propagation	T2	P		
13	Multiplexing ,Modulation	T3	G		
14	Spread Spectrum , Cellular System	T2	G		
15	Medium Access Control	T2	G		
16	Introduction Hidden/ Exposed Terminals	T1	G		
17	4.3 The basic Access Method4.4 Near / Far Terminals	T3	P		
18	SDMA, FDMA	T1	G		
19	TDMA, CDMA	T3	G		
20	**Wireless LANs ,Wireless LAN and communication**	T2	G		
21	Infrared ,Radio Frequency	T3	G		
22	R Advantages and Disadvantages	T2	P		
23	RF Advantages and Disadvantages	T3	G		
24	Wireless Network Architecture Logical	T2	G		
25	Types of WLAN	T1	G		
26	IEEE 802.11 MAC layer	T1	G		
27	Security ,Synchronization	T2	P		
28	Power Management Roaming	T2	P		
29	Bluetooth Overview	T1	G		
30	Ubiquitous Wireless Communication, Introduction	T3	G		
31	Scenario of Mobile Communication	T2	G		
32	Mobile Communication Generations 1G to 3G	T1	G		

33	3rd Generation Mobile Communication Network	T3	G		
34	Universal Mobile telecommunication System (UMTS)	T3	P		
35	Mobile IP Overview	T2	P		
36	Working with mobile IP,Mobile IP Entities	T1	G		
37	Mobility Agents	T3	G		
38	Components of Mobile IP	T3	G		
39	Mobile IPv6 Features	T3	P		
40	Mobile IPv6 Address Types	T2	P		
41	Mobile IPv6 Address Scope	T1	G		
42	Mobile IP Operation	T2	G		
43	Mobile Computing, WWW architecture for Mobile computing	T3	G		
44	Need of WAP, Benefits of WAP	T1	G		
45	Examples of WAP	T2	P		
46	WAP- Architecture	T1	P		
47	WAP protocols, WML	T3	G		
48	WAP Push architecture	T3	P		
49	Push-Pull based data acquisition	T2	P		
50	I-mode	T1	G		
51	WAP 2.x	T2	P		
52	Wireless Telecomm Networks, GSM	T1	P		
53	GPRS	T2	G		
54	IS-95	T1	P		
55	CDMA-2000	T2	P		
56	W-CDMA	T1	G		
57	Wireless Sensor Networks	T3	P		
58	Messaging Services, Short Message Services (SMS	T1	P		
59	Multimedia Message Services MMS	T1	G		
60	Multimedia transmission over wireless	T2	G		
			Method of Teaching		
			G: Green Board Teaching		
			P: Power Point Teaching		
Faculty Signature					

At the end of this course, students will be able to:

- To learn Mobile Computing Principles and Architecture
- To understand Mobility Management, GSM, and GPRS networks
- To know Short Message Service (SMS) technology, GPRS, WAP, CDMA, 3G
- Understand Wireless LAN, WiFi, and WLL (Wireless Local Loop) Architecture
- Understand the concept of Mobile IP.
- Learn Bluetooth, RFID, and Satellite Communications

TEXT BOOKS:

Dr. N.NJani, Kamaljit I. Lakhtaria, Dr. Ashish N. Jani &Nita Kanabar Mobile Computing S.Chand& Company Ltd

Principles of Mobile Computing" by Hansmann, Merk, Nicklous, and Stober		
Mobile Computing" by Schiller		