

PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF
ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN
Session-2022-2023

Discipline: comp. sc. and engg Engg. Semester: 5th (MC)

Name of the Teaching Faculty: Sunita Mahapatra

Subject: Mobile computing No. of Days/per week class allotted 04

Semester From Date: 15.09.22 To Date: 22.12.22 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
<u>1st</u>	1	Introduction to wireless networks and mobile computing.
	2	Networks
	3	wireless networks
	4	mobile computing
<u>2nd</u>	1	mobile computing characteristics
	2	Application of mobile computing
	3	introduction to mobile development framework
	4	C/S architecture
<u>3rd</u>	1	N-tier Architecture
	2	N-tier Architecture and WWW
	3	peer-to-peer Architecture
	4	Mobile Agent Architecture

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Subject: MC No. of Days/per week class allotted 04

Semester From Date: 15.09.22 To Date: 22.12.22 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
<u>4th</u>	1	wireless transmission introduction, signals
	2	period, frequency and Bandwidth
	3	Antennas, signal propagation
	4	Multiplexing
<u>5th</u>	1	modulation
	2	Spread spectrum, cellular system
	3	introduction to Medium Access control (MAC)
	4	Hidden/ Exposed terminals
<u>6th</u>	1	Basic Access methods (CSMA, CSMA/CA)
	2	Near/ far terminals
	3	SDMA, FDMA
	4	TDMA, CDMA

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Week	Class Day	Theory /Practical Topics
<u>7th</u>	1	Introduction to WLANs and communication.
	2	Infrared, Radio Frequency
	3	IR advantages and disadvantages, Types of WLAN
	4	IEEE 802.11, MAC layer
<u>8th</u>	1	Security, Synchronization, Power Management
	2	Roaming, Bluetooth overview
	3	Introduction to ubiquitous wireless communication
	4	Scenario of mobile communication
<u>9th</u>	1	Mobile communication Generations (1G, 2G)
	2	2G, 3G
	3	3G mobile communication network
	4	UMTS

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Week	Class Day	Theory/Practical Topics
<u>10th</u>	1	Mobile IP overview
	2	Working with mobile IP, Mobile IP entities
	3	Mobility Agents, components of mobile IP
	4	Mobile IPv6 features
<u>11th</u>	1	IPv6 Address types, Address scope
	2	Mobile IP operation
	3	Introduction to WWW architecture for mobile computing
	4	Need of WAP, Benefits of WAP
<u>12th</u>	1	Examples of WAP, WAP architecture
	2	WAP protocols, WML
	3	WAP Push Architecture, push-pull based data acquisition
	4	I-mode, WAP 2.X

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Week	Class Day	Theory / Practical Topics
<u>13th</u>	1	introduction to wireless telecomm. networks, GSM
	2	GPRS, GSM
	3	IS-95, GSM
	4	CDMA - 2000
<u>14th</u>	1	W-CDMA
	2	wireless sensor networks
	3	introduction to messaging services
	4	SMS
<u>15th</u>	1	SMS structures
	2	MMS
	3	MMS structures
	4	Multimedia transmission over wireless network

Sumita Mahapatra
Signature of the Faculty