MERI College of Engineering and Technology
(MERI - CET)

Session 2020-2021 ESC-CSE-308G

Lesson Plan

Name of the Faculty	:	Mr. Saharsh Gera (Theory)
Discipline	:	Computer Science and Engineering
Semester	:	6th
Subject	:	**Mobile and wireless Communication (** ESC-CSE-308G**)**
Lesson Plan Duration	:	15 Weeks (from MAY, 2021 to AUG, 2021)

** Work Load (Lecture) per week (in hours): Lectures-03

Week	Theory	
	Lecture Day	**Topic (including assignment/test)**
1st	1st	**Introduction:** Application, History, Market Scenario, Reference Model and Overview
	2nd	Wireless Local Loop and Cellular system.
	3rd	**Wireless Transmission**: Frequencies, Signals,
2nd	1st	Antennae, Signal Propagation, Multiplexing, Modulation, Spread Spectrum.
	2nd	**MAC Layer:** Specialized MAC, SDMA, FDMA, TDMA – Fixed TDM,
	3rd	Classical ALOHA, Slotted, ALOHA, CSMA, DAMA, PKMA, Reservation TDMA.
3rd	1st	**ASSIGNMENT-1**
	2nd	Collision Avoidance, Polling, Inhibit Sense Multiple Access, CDMA.
	3rd	**Broadcasting:** Unidirectional Distribution Systems,
4th	1st	Digital Audio Broadcasting, Digital Video Broadcasting,
	2nd	Convergence of Mobile and Broadcasting Techniques.
	3rd	**UNIT 2** **GSM:** Mobile Services, Architecture Radio, Interface,
5th	1st	Protocol, Localization, Calling Handover, Security, New data services.
	2nd	**Wireless LAN:** IEEE 802 11- System and Protocol Architecture,
	3rd	Physical Layer, MAC Layered Management.
6th	1st	**Bluetooth**: User scenarios, Physical layer, MAC Layer,

	2nd	Networking, Security and Link Management. Wimax
	3rd	TEST
7th	1st	**UNIT 3** **Mobile Network Layer:** Mobile IP-Goals, Assumptions
	2nd	Requirement, Entities, Terminology, IP Packet delivery
	3rd	Agent Advertisement and Discovery, Registration
8th	1st	Tunneling, Encapsulation,
	2nd	Optimization, Reserve Tunneling
	3rd	Security, IPv6 , DHCP.
9th	1st	**Mobile Adhoc Networks:** Routing
	2nd	Destination Sequence Distance Vector,
	3rd	Dynamic Source Routing
10th	1st	Hierarchical algorithms, Performance Metrics.
	2nd	**Mobile Transport Layer:** Traditional TCP,
	3rd	Indirect TCP, Snooping, TCP
11th	1st	Mobile TCP, Fast- retransmission TCP
	2nd	Transaction oriented TCP.
	3rd	**Satellite Systems:** History, Applications
12th	1st	**ASSIGNMENT-4**
	2nd	GEO, LEO, MEO, Routing, Localization
	3rd	Handover in Satellite System.
13th	1st	**Support for Mobility:** File System, WWW
	2nd	HTML, System Architecture.
	3rd	**WAP**: Architecture, Wireless Datagram, Protocol,
14th	1st	**ASSIGNMENT-5**
	2nd	Wireless Transport Layer Security, Wireless Transaction Protocol
	3rd	Application Environment, Telephony Applications.

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15th	1st	**ASSIGNMENT-6**
	2nd	Revision of syllabus
	3rd	Revision of syllabus