



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
SESSION: 2022-2023(EVEN SEMESTER)
LESSON PLAN

NAME OF THE STAFF : Dr. Kishore M
COURSE CODE/TITLE: 18EC81/WIRELESS AND CELLULAR COMMUNICATION
SEMESTER/YEAR : VIII/IV

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
MODULE 1							
1	Mobile Radio Propagation	L+D	BB+PPTs	1	1	13/02/2023	13/2/23
2	Large Scale Path Loss – Free Space Propagation Model, Relating Power to Electric FIELD	L+D	BB+PPTs	1	2	13/02/2023	13/2/23 14/2/23
3	Three Basic Propagation Mechanisms – Reflection (Ground Reflection)	L+D	BB+PPTs	1	3	14/02/2023	14/2/23 20/2/23
4	Diffraction, Scattering, Practical Link Budget	L+D	BB+PPTs	1	4	14/02/2023	20/2/23 21/2/23
5	Fading and Multipath – Broadband wireless channel, Delay Spread and Coherence Bandwidth	L+D	BB+PPTs	1	5	20/02/2023	21/2/23
6	Doppler Spread and Coherence Time, Angular spread and Coherence Distance	L+D	BB+PPTs	1	6	20/02/2023	27/2/23
7	Statistical Channel Model of a Broadband Fading Channel	L+D	BB+PPTs	1	7	21/02/2023	27/2/23
8	The Cellular Concept – Cellular Concept, Analysis of Cellular Systems, Sectoring	L+D	BB+PPTs	1	8	21/02/2023	28/2/23
MODULE 2							
9	GSM and TDMA Technology	L+D	BB+PPTs	1	9	27/02/2023	28/2/23
10	GSM System overview – Introduction	L+D	BB+PPTs	1	10	27/02/2023	6/3/23
11	GSM Network and System Architecture, GSM Channel Concept	L+D	BB+PPTs	1	11	28/02/2023	6/3/23 7/3/23

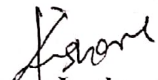
12	GSM Channel Concept	L+D	BB+PPTs	1	12	28/02/2023	7/3/23
13	GSM System Operations – GSM Identities	L+D	BB+PPTs	1	13	06/03/2023	14/3/23 14/3/23
14	System Operations –Traffic cases	L+D	BB+PPTs	1	14	06/03/2023	20/3/23
14	GSM Infrastructure Communications	L+D	BB+PPTs	1	14	07/03/2023	20/3/23
16	GSM Infrastructure Communications (Um Interface)	L+D	BB+PPTs	1	16	07/03/2023	21/3/23 21/3/23
MODULE 3							
17	CDMA Technology CDMA System Overview – Introduction	L+D	BB+PPTs	1	17	14/03/2023	27/3/23
18	CDMA Network and System Architecture	L+D	BB+PPTs	1	18	14/03/2023	27/3/23
19	CDMA Network and System Architecture	L+D	BB+PPTs	1	19	20/03/2023	4/4/23
20	CDMA Basics	L+D	BB+PPTs	1	20	20/03/2023	4/4/23
21	CDMA Channel Concepts	L+D	BB+PPTs	1	21	21/03/2023	10/4/23 10/4/23
22	CDMA Channel Concepts	L+D	BB+PPTs	1	22	21/03/2023	11/4/23
23	CDMA System (Layer 3) operations	L+D	BB+PPTs	1	23	27/03/2023	11/4/23
24	3G CDMA	L+D	BB+PPTs	1	24	27/03/2023	18/4/23
MODULE 4							
25	LTE – 4G Key Enablers for LTE 4G	L+D	BB+PPTs	1	25	04/04/2023	18/4/23
26	OFDM, SC-FDE, SC-FDMA	L+D	BB+PPTs	1	26	04/04/2023	24/4/23 24/4/23
27	Channel Dependent Multiuser Resource Scheduling	L+D	BB+PPTs	1	27	10/04/2023	25/4/23
28	Multi-Antenna Techniques	L+D	BB+PPTs	1	28	10/04/2023	25/4/23
29	Flat IP Architecture, LTE Network Architecture	L+D	BB+PPTs	1	29	11/06/2023	8/5/23
30	Multi-Carrier Modulation – Multicarrier concepts, OFDM Basics, OFDM in LTE	L+D	BB+PPTs	1	30	11/04/2023	8/5/23


31	Timing and Frequency Synchronization, Peak to Average Ratio, SC-Frequency Domain Equalization.	L+D	BB+PPTs	1	31	18/04/2023	9/5/23
32	Computational Complexity Advantage of OFDM and SC-FDE	L+D	BB+PPTs	1	32	18/04/2023	9/5/23
MODULE 5							
33	OFDMA and SC-FDMA – Multiple Access for OFDM Systems	L+D	BB+PPTs	1	33	24/04/2023	10/5/23
34	OFDMA, SCFDMA, Multiuser Diversity and Opportunistic Scheduling	L+D	BB+PPTs	1	34	24/04/2023	10/5/23
35	OFDMA and SC-FDMA in LTE	L+D	BB+PPTs	1	35	25/04/2023	11/5/23
36	OFDMA system Design Considerations	L+D	BB+PPTs	1	36	25/04/2023	11/5/23
37	The LTE Standard – Introduction to LTE	L+D	BB+PPTs	1	37	08/05/2023	9 Discussed Briefly
38	Hierarchical Channel Structure of LTE	L+D	BB+PPTs	1	38	08/05/2023	
39	Downlink OFDMA Radio Resources	L+D	BB+PPTs	1	39	09/05/2023	
40	Uplink SC-FDMA Radio Resources	L+D	BB+PPTs	1	40	09/05/2023	

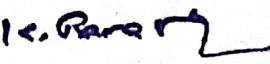
Total No. of Lecture Hours: 40

Total No. of Tutorial Hours: 00

Total No. of Revision Hours: 00


Course In charge


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