



LESSON PLAN

Name of the Subject: Cellular and Mobile Communications

Year & Sem: IV B.Tech / II Sem

Dept : ECE A & B

S.No	Date	Topic Planned	Classes Required	Cumulative Classes
1	27-11-2017	UNIT-I (Cellular mobile radio systems):Introduction to Cellular Mobile System	1	1
2	28-11-2017	Performance criteria	1	2
3	29-11-2017	uniqueness of mobile radio environment	1	3
4	30-11-2017	operation of cellular systems	1	4
5	1-12-2017	Hexagonal shaped cells	1	5
6	4-12-2017	Analog and Digital Cellular systems	1	6
7	5-12-2017	Elements of cellular radio system design: General description of the problem	1	7
8	6-12-2017	concept of frequency channels	1	8
9	7-12-2017	Co-channel Interference Reduction Factor	1	9
10	8-12-2017	desired C/I from a normal case in a omni directional Antenna system	1	10
11	11-12-2017	Cell splitting	1	11
12	12-12-2017	Consideration of the components of Cellular system	1	12
13	13-12-2017	UNIT – II (Interference): Introduction to Co-Channel Interference	1	13
14	14-12-2017	Real time Co-Channel interference	1	14
15	15-12-2017	Co-Channel measurement, Design of Antenna system	1	15
16	18-12-2017	Antenna parameters and their effects, Diversity receiver	1	16
17	19-12-2017	Non-co-channel interference-different types	1	17
18	20-12-2017	Cell coverage for signal and traffic: Signal reflections in flat and hilly terrain	1	18
19	21-12-2017	Effect of human made structures	1	19
20	22-12-2017	Phase difference between direct and reflected paths	1	20
21	26-12-2017	Constant standard deviation	1	21
22	27-12-2017	Straight line path loss slope	1	22
23	28-12-2017	General formula for mobile propagation over water and flat open area	1	23
24	29-12-2017	Near and long distance propagation antenna height gain	1	24
25	02-1-2018	Form of a point to point model	1	25
26	03-1-2018	UNIT –III (Cellsite and mobile antennas): Sum and difference patterns and their synthesis	1	26
27	04-1-2018	Omni directional antennas	1	27
28	05-1-2018	Directional antennas for interference reduction	1	28
29	08-1-2018	Space diversity antennas	1	29



AMRITA SAI INSTITUTE OF SCIENCE AND TECHNOLOGY
APPROVED BY AICTE, NEW DELHI; PERMANENTLY AFFILIATED TO JNTU, KAKINADA
Accredited by NAAC with 'A' Grade

PARITALA, KRISHNA DISTRICT – 521 180 (A. P.)

30	09-1-2018	Umbrella pattern antennas	1	30
31	10-1-2018	Minimum separation of cell site antennas	1	31
32	11-1-2018	High gain antennas	1	32
33	12-1-2018	Revision 12-01-2018 to 21-01-2018	1	33
34	13-1-2018	Revision 12-01-2018 to 21-01-2018	1	34
I Mid Examinations : 22-01-2018 to 27-01-2018				
35	29-1-2018	UNIT-IV (Frequency management and channel assignment): Numbering and grouping	1	35
36	30-1-2018	Setup access and paging channels	1	36
37	31-1-2018	Channel assignments to cell sites and mobile units	2	37
38	2-2-2018	Channel sharing and borrowing	2	39
39	6-2-2018	Sectorization	2	41
40	8-2-2018	Overlaid cells	2	43
41	12-2-2018	Non fixed channel assignment	1	45
42	13-2-2018	UNIT-V :Handoff	1	46
43	15-2-2018	Dropped calls and cell splitting	1	47
44	19-2-2018	Types of handoff	1	48
45	20-2-2018	Handoff invitation	1	49
46	21-2-2018	Delaying handoff	1	50
47	22-2-2018	Forced handoff	1	51
48	23-2-2018	Mobile assigned handoff	1	48
49	26-2-2018	Intersystem handoff	1	52
50	27-2-2018	Cell splitting	1	53
51	28-2-2018	Micro cells	1	54
52	1-3-2018	Vehicle locating methods	1	55
53	2-3-2018	Dropped call rates and their evaluation	1	56
54	5-3-2018	UNIT-VI (Digital cellular networks):GSM architecture	1	57
55	6-3-2018	GSM channels	1	58
56	7-3-2018	Multiplex access scheme	1	59
57	8-3-2018	TDMA, CDMA	2	60
58	12-3-2018	ADD ON TOPICS : Advanced Intelligent Network	1	62
59	13-3-2018	Asynchronous Transfer Mode (ATM) technology	1	63
II Mid Examination: 26-03-2018 to 31-03-2018, End Examinations : 09-04-2018 to 21-04-2018				

Signature of Faculty

HOD

Principal



AMRITA SAI INSTITUTE OF SCIENCE AND TECHNOLOGY
APPROVED BY AICTE, NEW DELHI; PERMANENTLY AFFILIATED TO JNTU, KAKINADA
Accredited by NAAC with 'A' Grade

PARITALA, KRISHNA DISTRICT – 521 180 (A. P.)

Commencement of Class Work : 27-11-2017

I Unit of Instructions : 27-11-2017 to 20-01-2018

I Mid Examinations : 22-01-2018 to 27-01-2018

II Unit of Instructions : 29-01-2018 to 24-03-2018

II Mid Examinations : 26-03-2018 to 31-03-2018

Preparation & Practicals : 02-04-2018 to 07-04-2018

End Examinations : 09-04-2018 to 21-04-2018