



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Lesson Plan & Work-done Diary for AY: 2026-27, ODD Semester

Course with Code: Microwave Engineering & Antenna Theory				Faculty Name: Mr. Guruprasad K N			Semester: 7 th B sec	
Class No.	Date planned	Topics to be covered	TLP Planned	Class No.	Date of Conduction	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-0								
1.		Basics of Vector calculus & Maxwell's equations and wave theory,	Chalk &Talk					
2.		Electromagnetic field theory basics	Chalk &Talk					
3.		Introduction to basics of communication system	Chalk &Talk					



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MODULE-1								
4.		Microwave Sources: Introduction,	PPT					
5.		Microwave Sources: Gunn Diode	PPT					
6.		Microwave transmission lines: Microwave frequencies, Microwave devices, Microwave systems	PPT					
7.		Transmission line equations and solutions,	Chalk &Talk					
8.		Reflection Coefficient and Transmission Coefficient	Chalk &Talk					
9.		Standing wave and standing wave ratio	PPT					
10.		Smith chart: Single stub matching	Chalk &Talk					
11.		Quiz-1 & Problems	Chalk &Talk					

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MODULE-2								
12.		Microwave Network Theory: Introduction,	PPT					
13.		S matrix representation of multi-port networks	Chalk &Talk					
14.		S matrix representation of multi-port networks	Chalk &Talk					
15.		Microwave passive devices: Coaxial connectors and Adapters	PPT					
16.		Attenuators, Phase shifters	PPT					
17.		Waveguide Tees, Magic Tee,	PPT					
18.		Circulator, Isolator.	PPT					
19.		Quiz-2 and Problem Based Learning	Chalk &Talk					

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MODULE-3								
20.		Strip Lines: Introduction	PPT					
21.		Microstrip lines	PPT					
22.		Parallel Strip lines.	PPT					
23.		Antenna Basics: Introduction	PPT					
24.		Basic Antenna Parameters, Patterns, Beam Area, Radiation Intensity	PPT					
25.		Beam efficiency, Directivity and Gain, Antenna Aperture Effective height	PPT					
26.		Bandwidth, Radio communication Link, Antenna Field Zones.	PPT					
27.		Problems and Quiz-3 (SRS)	Chalk &Talk					

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MODULE-4								
28.		Point sources and arrays: Introduction	PPT					
29.		Point Sources, Power patterns, Power theorem, Radiation Intensity	PPT					
30.		Arrays of 2 isotropic point sources	Chalk &Talk					
31.		Pattern multiplication	PPT					
32.		Linear arrays of n Isotropic sources of equal amplitude and Spacing.	Chalk &Talk					
33.		Electric Dipole: Introduction, Short Electric dipole	Chalk & Talk					
34.		Fields of a short dipole, Radiation resistance of a short dipole	Chalk & Talk					
35.		Thin linear antenna (field analysis).	Chalk & Talk					

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MODULE-5								
36.		Loop and Horn antenna: Introduction: Small loop,	PPT					
37.		Comparison of far fields of small loops and short dipole	PPT					
38.		Radiation resistance of small loop	Chalk & Talk					
39.		Horn Antennas, Rectangular antennas.	PPT					
40.		Antenna Types: Yagi Uda array	PPT					
41.		Parabolic Reflector	PPT					
42.		Microstrip Antennas, Features of Microstrip Antennas	PPT					
43.		Quiz – 4 & 5 (SRS)	PPT					



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Sl. No	Activity	Planned	Actual	Remarks
1	Theory Classes	43		
2	Assignments/ Quizzes	5		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	60		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	