Lesson Plan & Work-done Diary for AY: 2025-26, ODD Semester

Course with Code: Microwave Engineering & Antenna Theory							Semester: 7th	
Class No.	**Date planned (DD/MM)**	**Topics to be covered**	**TLP Planned**	**Class No.**	**Date of Conduction (DD/MM)**	**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 Signals and systems	Chalk &Talk					

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MODULE-1								
1		Microwave Sources: Introduction,						
2		Microwave Sources: Gunn Diode						
3		Microwave transmission lines: Microwave frequencies, Microwave devices, Microwave systems						
4		Transmission line equations and solutions,						
5		Reflection Coefficient and Transmission Coefficient						
6		Standing wave and standing wave ratio						
7		Smith chart: Single stub matching						
8		Quiz-1 & Problrms						

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

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

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

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MODULE-5								
33		Loop and Horn antenna: Introduction: Small loop,						
34		Comparison of far fields of small loops and short dipole						
35		Radiation resistance of small loop						
36		Horn Antennas, Rectangular antennas.						
37		Antenna Types: Yagi Uda array, Parabolic Reflector						
38		Microstrip Antennas, Features of Microstrip Antennas						
39		Practical based Learning						
40		Quiz – 4 & 5 (SRS)						

Sl. No	Activity	Planned	Actual	Remarks
1	Theory Classes	41		
2	Assignments/ Quizzes/ Self-study	5		
3	Tutorials/ Extra classes	3		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	35		

Planning	Execution
Faculty Signature:	Faculty Signature:
HoD Signature:	HoD Signature: