

Teaching Diary

2023-24

Sl. No.	DATE	PERIOD	TOPICS TAUGHT	REMARKS
01	31/07/2023	I	Microwave Tubes: Limitations and losses of conventional Tubes at microwave frequencies.	
02	1/08/2023	II	Microwave Tubes - O Type and M Type classifications.	
03	2/08/2023	IV	O-type Tubes: 2 cavity klystrons - structure.	
04	3/08/2023	VI	Reentrant cavities, velocity modulation process and Applegate Diagram.	
05	04/08/2023	V	Bunching process and small signal Theory - Expressions for o/p power and efficiency.	
06	07/08/2023	III	Reflex klystrons - structure, velocity modulation and Applegate Diagram.	
07	09/08/2023	I	mathematical Theory of bunching power output, efficiency.	
08	10/08/2023	II	oscillating modes and o/p characteristics.	
09	12/08/2023	IV	Helix TWTs: Types and characteristics of slow wave structures.	
10	14/08/2023	III	structure of TWT and amplification process (qualitative treatment).	
11	17/08/2023	V	suppression of oscillations.	
12	18/08/2023	VI	Gain considerations.	
13	22/08/2023	III	M-Type Tubes - Introduction.	
14	23/08/2023	I	cross-field effects.	
15	24/08/2023	II	magnetrons - Different types, cylindrical Travelling wave-magnetron - Hull cut-off and Hartree conditions.	
16	26/08/2023	I	modes of Resonance and PS-mode	



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			modes operation.	
17	28/08/2023	I	separation of PT - mode.	
18	01/09/2023	III	o/p characteristics.	
			microwave solid state devices-	
19	02/09/2023	II	Introduction.	
20	04/09/2023	IV	classification.	
21	05/09/2023	VI	Applications.	
22	08/09/2023	I	TEDs- Introduction.	
23	11/09/2023	III	Gunn Diodes - principle,	
24	12/09/2023	IV	RWH Theory.	
25	13/09/2023	III	characteristics.	
26	14/09/2023	II	modes of operation - Gunn osci-	
27	23/09/2023	I	-lation modes.	
28	25/09/2023	IV	principle of operation of 3m	
29	26/09/2023	VI	-PATT and TRAPATT devices.	
			Waveguide components	
30	27/09/2023	I	coupling mechanisms - probe.	
31	28/09/2023	IV	Loop.	
32	09/10/2023	III	Aperture types.	
33	10/10/2023	II	waveguide Discontinuities - wave-	
			-guide windows.	
34	20/10/2023	I	Tuning screws and posts.	
35	21/10/2023	IV	matched loads.	
36	01/11/2023	III	waveguide Attenuators - diffe-	
			-rent types.	
37	02/11/2023	II	Resistive card and Rotary vane	
			Attenuators.	
38	03/11/2023	I	waveguide phase shifters Type.	
39	04/11/2023	IV	Dielectric and Rotary vane	
			phase shifters.	
40	06/11/2023	VI	Waveguide multipoint junctions-	
			E-plane and H plane Tees.	
41	08/11/2023	IV	ferrites - composition and char	



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			characteristics, P	
42	09/11/2023	I	Faraday Rotation,	
43	10/11/2023	II	Ferrite components - Gyration,	
44	11/11/2023	IV	Isolator,	
			scattering matrices-	
45	14/11/2023	IV	scattering matrix properties,	
46	16/11/2023	III	Directional couplers - 2 Hole,	
47	17/11/2023	II	Bethe Hole,	
48	18/11/2023	VI	[S] matrix of magic Tee and circulator.	
			microwave measurements-	
49	20/11/2023	III	Description of microwave Bench - Different blocks and their functions,	
			- tee,	
50	21/11/2023	IV	errors and precautions,	
51	22/11/2023	I	measurement of Attenuation, - Frequency.	
52	23/11/2023	V	standing wave measurements,	
53	28/11/2023	II	measurement of low and High VSWR,	
54	29/11/2023	I	cavity Q,	
55	29/11/2023	IV	Impedance measurements.	
			optical-fiber Transmission media-	
56	30/12/2023	II	optical-fiber types,	
57	30/12/2023	IV	light propagation,	
58	1/12/2023	V	optical fiber configurations,	
59	1/12/2023	VI	optical fiber classifications,	
60	2/12/2023	IV	Losses in optical fiber cables,	
61	2/12/2023	I	light sources,	
62	4/12/2023	III	optical sources	
63	4/12/2023	II	light Detectors	
64	5/12/2023	V	LASERS,	
65	5/12/2023	IV	WDM concepts,	



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