

LESSON PLAN

Period	Date (tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
1	27.6.16	Introduction to RADAR	1			
2	28.6.16	Orig & Evolution of Radar				
3	28.6.16	Maximum Unambiguous range & Radar Equation				
4	28.6.16	Radar range equation & factors affecting range of radar				
5	1.7.16	Radar Block Diagram				
6	1.7.16	Radar frequency and applications				
7	2.7.16	Prediction of Radar performance				
8	4.7.16	Minimum Detectable Signal Receiver noise & SNR				
9	5.7.16	Integration of Radar pulses & Radar cross section				
10	5.7.16	Transmitted power, PRF and Range ambiguity				
11	8.7.16	Problems pertaining Doppler Effect and Introduction to Radar	2			
12	8.7.16	Block diagram of CW Radar and operation				
13	14.7.16	Resolution of CW radar when zero LF receiver				
14	12.7.16	Receiver Bandwidth requirements				
15	12.7.16	Applications of FMCW Radar				
16	15.7.16	Operation of FMCW Radar				
17	15.7.16	Range & Doppler Measurement & Characteristics				
18	16.7.16	For 2D estimation Measurement using Multiple frequency CW Radar				
19	16.7.16	Multiple frequency CW Radar				
20	19.7.16	Problems relating				

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21	19.7.16	Introduction to MTI and pulse Doppler Radar	3			
22	20.7.16	Principle of operation of MTI Radar				
23	21.7.16	Power Amplifier & Base Oscillator				
24	22.7.16	Doppler Line Cancellers				
25	23.7.16	Filter Characteristics, Blind speeds				
26	24.7.16	Double Cancellation & Staggered PRIs				
27	25.7.16	Range gated Doppler filter				
28	26.7.16	MTI Radar Parameters & Limitations				
29	27.7.16	Non-coherent MTI Radar				
30	28.7.16	MTI Vs pulse Doppler radar	4			
31	1.8.16	Tracking with Radar, & Introduction.				
32	2.8.16	Sequential lobing & Conical Scan				
33	3.8.16	Monopulse Tracking Radar				
34	4.8.16	Amplitude Comparison Monopulse Radar				
35	5.8.16	Phase Comparison monopulse				
36	6.8.16	Target Reflection Coefficient & Angular accuracy.				
37	7.8.16	Tracking in Range				
38	8.8.16	Acquisition and Scanning patterns				
39	9.8.16	Comparison of tracking				
40	10.8.16	Problems on previous Chapters				

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Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
41	13.8.16	Introduction to detection of some signals in noise	5			
42	16.8.16	Matched filter Receiver & its Response & char				
43	19.8.16	Matched filter Rx derivation.				
44	20.8.16	Correlation & cross-correlation Rx.				
45	22.8.16	Efficiency of Non matched filters				
46	23.8.16	Efficiency of Non Matched filters.				
47	26.8.16	Matched filter with non white noise				
48	27.8.16	Noise figure & noise temp.				
49	29.8.16	Radar Displays & Types				
50	30.8.16	Duplexers: Branch & balanced type				
51	2.9.16	Circulators and Duplexers.				
52	3.9.16	Introduction to phased array antennas.				Efficient