

LESSON PLAN

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
4	28-6-16	Introduction,	I			
3	29-6-16	nature of Radar	I			
4	29-6-16	Max. unambiguous Range,	I			
6	30-6-16	Radar wave forms,	I			
6	1-7-16	Simple form of Radar equation	I			
1	2-7-16	Continuation	I			
4	5-7-16	Advantages of Radar in warfield	I			
3	6-7-16	Radar block diagram and operation,	I			
4	6-7-16	Radar frequency and Applications	I			
3	8-7-16	Prediction of Range performance	I			
1	9-7-16	Minimum detectable signal	I			
4	12-7-16	Receiver noise and SNR	I			
3	13-7-16	Integration of Radar pulses	I			
4	13-7-16	Radar cross section of targets	I			
6	14-7-16	Pt and PRT and Range ambiguities	I			
3	15-7-16	Doppler Effect	II			
1	16-7-16	CW - Radar block diagram	II			
4	18-7-16	Explanation to CW - Radar	II			
3	20-7-16	Applications of CW Radar	II			
4	20-7-16	Isolation between transmitter & Rx	I			

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6	21-7-16	Continuation - of Isolation b/w Tx & Rx.	<u>II</u>			
3	22-7-16	Non-zero IF Receiver block diagram	<u>II</u>			
1	23-7-16	Non-zero IF Receiver explanation	<u>II</u>			/
4	25-7-16	Receiver bandwidth requirements.	<u>II</u>			
3	27-7-16	Applications of CW Radar in weather	<u>II</u>			
4	27-7-16	FM-CW Radar Introduction	<u>II</u>			
6	28-7-16	FM-CW Radar block diagram	<u>II</u>			
3	29-7-16	FM-CW Radar operation.	<u>II</u>			
1	30-7-16	Range and Doppler measurement	<u>II</u>			
4	2-8-16	Block diagram and characteristics	<u>II</u>			
3	3-8-16	FM-CW Altitude	<u>II</u>			
4	3-8-16	Measurement errors for FM-CW Radar	<u>II</u>			
6	4-8-16	Multiple frequency CW Radar	<u>I</u>			
3	5-8-16	Range expression for MF-CW Radar	<u>II</u>			
1	6-8-16	Application of Multiple frequency CW Radar	<u>II</u>			
4	7-8-16	MTI (Moving Target Indication) Radar	<u>III</u>			
3	10-8-16	Introduction to MTI Radar	<u>III</u>			
4	10-8-16	Pulse Doppler Radar	<u>II</u>			
6	11-8-16	Principle of MTI Radar	<u>III</u>			
3	12-8-16	Principle of pulse Doppler Radar	<u>III</u>			

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1	13-8-16	MTI - Radar with power amplifier	III			
4	16-8-16	transmitter operation	III			
3	17-8-16	MTI - Radar with power oscilb	III			
4	17-8-16	transmitter operation	III			
6	18-8-16	Single-Delay line canceller	III			
3	19-8-16	Double-Delay line canceller	III			
1	20-8-16	Filter-chara- cteristics of	III			
4	23-8-16	Delay line cancellers	III			
3, 4	24-8-16	Blind speeds in MTI Radar	III			
4	24-8-16	Double canceller	III			
3	26-8-16	Staggered PRFs	III			
1	27-8-16	continuation	III			
4	30-8-16	Range gated	III			
3, 4	31-8-16	Doppler Filter block diagram	III			
4	31-8-16	and operation	III			
6	1-9-16	MTI Radar parameters	III			
3	2-9-16	- continuation -	III			
1	3-9-16	Limitations to MTI performance	III			
4	6-9-16	coherent MTI Radar	III			
3	7-9-16	8/16 operation	III			

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4	7-9-16	Non-coherent	III			
6	8-9-16	MTI Radar block diagram	III			
3	9-9-16	and its operation	III			
1	10-9-16	MTI versus pulse doppler	III			
4	13-9-16	Radar —	III			
3	14-9-16	pulse doppler Radar operation	III			
4	14-9-16	PRF and Range ambiguity	III			
6	15-9-16	Noise figure (F _n)	III			
3	16-9-16	Figure of Merit (CFM)	III			
1	17-9-16	System noise temperature.	IV			
4	20-9-16	Tracking Radar	IV			
3	21-9-16	Tracking with Radar	IV			
4	21-9-16	Sequential lobing	IV			
6	22-9-16	Conical scan	IV			
3	23-9-16	Monopulse tracking Radar	IV			
1	24-9-16	Continuation	IV			
4	27-9-16	Amplitude comparison Monopulse	IV			
3	28-9-16	(one to two co-ordinates)	IV			
4	28-9-16	Phase comparison monopulse.	IV			
6	29-9-16	Target Reflection characteristics.	IV			

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Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action Upon Review
3	30-9-16	Angular Accuracy	IV			
1	1-10-16	Tracking In Range	IV			
4	4-10-16	Acquisition patterns	IV			
3	5-10-16	Scanning patterns	IV			
4	5-10-16	Comparison of	IV			
6	6-10-16	different types of tracks	IV			
3	7-10-16	Detection of Radar signals	V			
1	8-10-16	continuation -	V			
4	18-10-16	Introduction	V			
3	19-10-16	Matched filter Receiver	V			
4	19-10-16	Matched filter Response	V			
6	20-10-16	Matched filter Characteristic	V			
3	21-10-16	Matched filter derivation	V			
1	22-10-16	Correlation function	V			
4	25-10-16	and Cross Correlation Receiver	V			
3	26-10-16	Efficiency of Non matched filter	V			
4	26-10-16	Matched filter with white noise	V			
6	27-10-16	Noise figure (Fn)	V			
3	28-10-16	Measurement of Noise figure	V			
1	29-10-16	Noise temperature $T_e = T_a + T_d$	V			

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