

Lesson Plan

Name of the Faculty	:	Er. Vijay Kumar Anand
Discipline	:	Electronics and Communication Engineering
Semester	:	8 th
Subject	:	Radar Engineering (ECE-422N)
Lesson Plan Duration	:	15 weeks (from January, 2021 to April, 2021)

****Work Load (Lecture / Practical) per week (in hours): Lectures-03**

Week	Theory	
	Lecture Day	Topic (including assignment / test)
1st	1st	Introduction to RADAR
	2nd	Block diagram & Operation
	3rd	Applications of Radar
2nd	4th	Radar equation
	5th	Minimum detectable signal
	6th	Receiver noise and Signal to noise ratio
3rd	7th	Transmitter power
	8th	Pulse repetition frequency & range ambiguities
	9th	System Losses
4th	10th	System Losses
	11th	Propagation effects
	12th	REVISION 1st UNIT/Class Test
5th	13th	CW & Frequency modulated Radar
	14th	Doppler effect, CW Radar
	15th	FM-CW Radar
6th	16th	Multiple frequency CW RADAR
	17th	Introduction to MTI & Pulse Doppler Radar
	18th	Delay line cancellers
7th	19th	Double Delay Line cancellers
	20th	Multiple or Staggered Pulse repetition frequencies
8th	21st	Range-Gated Doppler Filters,
	22nd	Other MTI delay line
	23rd	Limitation of MTI performance

	24th	Noncoherent MTI Pulse Doppler Radar
9th	25th	MTI from a moving platform
	26th	MTI from a moving platform
	27th	REVISION 2nd UNIT
10th	28th	Class Test unit-2
	29th	Tracking with Radar
	30th	Sequential Lobbing
11th	31st	Conical Scan
	32nd	Monopulse Tracking Radar
	33rd	Tracking in range
12th	34th	Acquisition
	35th	REVISION 3rd UNIT
	36th	Class Test-unit 3rd
13th	37th	Radar Receivers
	38th	Noise figure
	39th	Mixer
14th	40th	Low noise front ends
	41st	Radar Displays
	42nd	Duplexer
15th	43rd	Receiver Protectors
	44th	REVISION 4th UNIT
	45th	Class Test Unit-4th

(Er. Vijay Kumar Anand)

Assistant Professor

ECE Department ACE