

Analog Communications Lab

Course Code	19EC3453	Year	II	Semester	II
Course Category	Program Core	Branch	ECE	Course Type	Lab
Credits	1.5	L-T-P	0-0-3	Prerequisites	Nil
Continuous Internal Evaluation:	25	Semester End Evaluation:	50	Total Marks:	75

Course Outcomes	
Upon successful completion of the course, the student will be able to	
CO1	Analyse different parameters of Analog modulation techniques (L4)
CO2	Analyse different parameters of pulse modulation techniques (L4)
CO3	Study various parameters of Radio Receivers.(L3)
CO4	Design and Construct Radio Receivers on their own (L5)

Mapping of course outcomes with Program outcomes (CO/ PO/PSO Matrix)														
Note: 1- Weak correlation 2-Medium correlation 3-Strong correlation														
* - Average value indicates course correlation strength with mapped PO														
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	2	2	2					1		1	2	1
CO2	3	3	2	2	2					1		1	2	1
CO3	3	3	2	2	2					1		1	2	1
CO4	3	3	2	2	2					1		1	2	1

Syllabus		
Expt. No.	Contents	Mapped CO
I	Amplitude Modulation and Demodulation	CO1
II	DSBSC Modulation and Demodulation	CO1
III	Frequency modulation and Demodulation	CO1
IV	Pre-emphasis and De-emphasis	CO1
V	Spectral Analysis of AM and FM using Spectrum Analyzer	CO1
VI	SSB Modulation and Demodulation using MATLAB	CO1
VII	Time Division multiplexing and de-multiplexing using MATLAB	CO1
VIII	PAM Signal Generation and Demodulation using MATLAB	CO2

IX	PPM Signal Generation and Demodulation using MATLAB	CO2
X	AGC Characteristics of Radio Receiver using MATLAB	CO3
XI	Phase Lock Loop using MATLAB	CO3
XII	Design and Construction of FM Radio Receiver	CO4

Learning Resources
Text Books
<ol style="list-style-type: none"> 1. Introduction to Analog and Digital Communication System-Simon Haykin , John Wiley and Sons,3rd Ed.,,2009. 2. Fundamentals of Communication Systems - John G. Proakis, Masoud Salehi, PEARSON, 2nd Ed., 2013
Reference Books
<ol style="list-style-type: none"> 1. Principles of Communication Systems – H Taub & D. Schilling, Gautam Sahe,TMH, 3rd Ed.,2007 2. Analog and Digital Communication System-Sam Shanmugam, John Wiley and Sons,3rd Edition,2009
