

2K6EC 706 (P) SIMULATION LAB

LIST OF EXPERIMENT WITH COURSE OUTCOME

SL.No	LIST OF EXPERIMENT	COURSE OUTCOME
1	Introduction To Matlab	CO1
2	Generation Of Waveforms	CO1
3	AM & FM Generation	CO1
4	AM & FM Demodulation	CO1
5	Impulse Response	CO1
6	Linear Convolution	CO1
7	Circular Convolution	CO1
8	Circular Convolution (Using DFT)	CO1
9	Verification Of Sampling Theorem	CO1
10	Upsampling And Downsampling	CO1
11	FFT And IFT Of A Given Sequence	CO2
12	IIR Butterworth Low pass Filter	CO2
13	IIR Butterworth High pass Filter	CO2
14	IIR Butterworth Band pass Filter	CO2
15	IIR Butterworth Bandstop Filter	CO2
16	IIR Chebyshev Type-1 Lowpass Filter	CO2
17	IIR Chebyshev Type-1 Highpass Filter	CO2
18	IIR Chebyshev Type-1 Bandpass Filter	CO2
19	IIR Chebyshev Type-1 Bandstop Filter	CO2
20	FIR Low Pass Filter	CO2
21	FIR High Pass Filter	CO2

CO-PO Mapping

CO	After completing the course the student will be able to	PO
C706.1	Can test and verify the different communication modulations through simulation	1,2,4,5,9,11
C706.2	Can design and simulate FIR and IIR filters.	1,2,3,5,9,11

- 1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 7. Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.