
A LIST OF EXPERIMENTS USING MATLAB / SCILAB / OCTAVE / WAB

1. Verification of Sampling theorem.
2. Impulse response of a given system
3. Linear convolution of two given sequences.
4. Circular convolution of two given sequences
5. Autocorrelation of a given sequence and verification of its properties.
6. Cross correlation of given sequences and verification of its properties.
7. Solving a given difference equation.
8. Computation of N point DFT of a given sequence and to plot magnitude and phase spectrum.
9. Linear convolution of two sequences using DFT and IDFT.
10. Circular convolution of two given sequences using DFT and IDFT
11. Design and implementation of FIR filter to meet given specifications.
12. Design and implementation of IIR filter to meet given specifications.

B. LIST OF EXPERIMENTS USING DSP PROCESSOR

1. Linear convolution of two given sequences.
2. Circular convolution of two given sequences.
3. Computation of N- Point DFT of a given sequence
4. Realization of an FIR filter (any type) to meet given specifications .The input can be a signal from function generator / speech signal.
5. Audio applications such as to plot time and frequency (Spectrum) display of Microphone output plus a cosine using DSP. Read a wav file and match with their respective spectrograms
6. Noise: Add noise above 3kHz and then remove; Interference suppression using 400 Hz tone.
7. Impulse response of first order and second order system


REFERENCE BOOKS:

1. Digital signal processing using MATLAB - Sanjeet Mitra, TMH, 2001
2. Digital signal processing using MATLAB - J. G. Proakis & Ingale, MGH, 2000
3. Digital Signal Processors, B. Venkataramani and Bhaskar, TMH, 2002

ANALOG COMMUNICATION LAB + LIC LAB

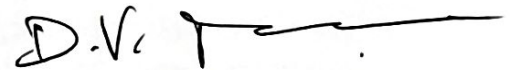
Subject Code : 10ECL58
No. of Practical Hrs/Week : 03
Total no. of Practical Hrs. : 42

IA Marks : 25
Exam Hours : 03
Exam Marks : 50


H.O.D.

**EXPERIMENTS USING DESCERTE COMPONENTS and LABVIEW
- 2009 CAN BE USED FOR VERIFICATION AND TESTING.**

1. Second order active LPF and HPF
2. Second order active BPF and BE
3. Schmitt Trigger Design and test a Schmitt trigger circuit for the given values of UTP and LTP
4. Frequency synthesis using PLL.
5. Design and test R-2R DAC using op-amp
6. Design and test the following circuits using IC 555
 - a. Astable multivibrator for given frequency and duty cycle
 - b. Monostable multivibrator for given pulse width W
7. IF amplifier design
8. Amplitude modulation using transistor/FET (Generation and detection)
9. Pulse amplitude modulation and detection
10. PWM and PPM
11. Frequency modulation using 8038/2206
12. Precision rectifiers – both Full Wave and Half Wave.



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