



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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| III Year – II Semester | | L | T | P | C |
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| DIGITAL SIGNAL PROCESSING LAB | | | | | |

(Note: Students have to perform at least FOUR experiments from each part.)

PART-A

List of the Experiments

1. Generation of DT signals.
2. Verify the Linear Convolution of two DT signals
 - a) Using MATLAB
 - b) Using Code Composer Studio(CCS)
3. Verify the Circular Convolution of two DT signals
 - a) Using MATLAB
 - b) Using Code Composer Studio(CCS)
4. Find the sum of DT sinusoidal signals.
5. Computation of Discrete Fourier Transform(DFT) and Inverse Discrete Fourier Transform (IDFT)
 - a) Using MATLAB
 - b) Using Code Composer Studio(CCS)
6. Transfer Function Stability Analysis: using pole-zero plot, bode Plot and Nyquist plot.

PART-B

Following Experiments are to be done using a TIDSP Starter Kit.

7. Generation of a sinusoidal signal.
8. Linear and circular convolution of DT sequences.
9. Compute N-point DFT of a given DT sequence.
10. Design and implementation of FIR filters.
11. Design and implementation of IIR filters.

PART-C

Following Experiments are to be done using Cypress FM4 Starter Kit.

12. Verification of sampling theorem.
13. Implementation of FFT algorithm.
14. Implementation of FIR filters.
15. Implementation of IIR filters.