MOTHER TERESA
INSTITUTE OF SCIENCE & TECHNOLOGY
Permanently Affiliated to JNTUH, Hyderabad
Recognition under Section 2(f) & 12 (B) of the UGC Act, 1956
AN ISO 9001:2008 CERTIFIED INSTITUTION
SANKETIKA NAGAR, SATHUPALLY – 507303, KHAMMAM Dist., TELANGANA

ECAD LAB

ECAD LABARATORY

S.NO	Name of Equipment
1	Dual core 2.2 GHz computer with 15.6 LED Monitor,2 GB, RAM
2	Core 2 Duo Processor G31-Intel Chip set Mother board,2GB DDR2 RAM,ATX Cabinet,80GB HDD,17'' LCD Monitor
3	PMS 320C6713 Based DSP kits with in built function generators
4	B2 Spice Analog & Digital circuits Simulation package,WINDOWS PRO 4.2V
5	Brother Printer 2140
6	Head set
7	FPGA Kits

LIST OF EXPERIMENTNS CYCLE –I:

1. Basic Operations on Matrices.

2. Generations of Various Signals and sequences (periodic and Aperiodic), such as unit impulses, unit step, square, saw tooth, triangular, sinusoidal, ramp, sinc.

3. Operation on Signals and sequences such as addition, Multiplication, Scaling, Shifting, Folding, Computation of energy and average power

4. Finding the even and odd parts of signal/sequence and real and imaginary parts of signal.

5. Convolution between Signals and Sequences

6. Auto correlation and cross correlation between signals and sequences.

7. Verification of linearity and time invariance properties of a given continuous/discrete system.

8. Computation of unit samples, unit step and sinusoidal response of the given LTI system and verifying its physical realiazability and stability properties.

9. Gibbs phenomenon

CYCLE –II:

1. Finding the Fourier Transform of a given signal and plotting its magnitude and phase spectrum.

2. Wave form synthesis using Laplace Transforms.

3. Locating the zeros and poles and plotting the pole-zero maps in S-plane and Z-plane for the given transfer function.

4. Generation of Gauss ion noise (Real and Complex), computation of its mean, M.S. value and its Skew, kurtosis, and PSD, probability distribution function.
5. Sampling theorem verification.

6. Removal of noise by auto correlation/cross correlation.

7. Extraction of periodic signal masked by noise using correlation.

8. Verification of wiener – Khinchine relations.

9. Checking a random process for stationary in wide sense