

**WITH EFFECT FROM THE ACADEMIC YEAR 2009-2010**

**EE431**

**DSPLAB  
(COMMON TO EEE & IE)**

Instruction	3 Periods per week
Duration of University Examination	3 Hours
University Examination	50 Marks
Sessional	25 Marks

1. Waveform generation -Square, Triangular and Trapezoidal.
2. Verification of Convolution Theorem-comparison Circular and Linear Convolutions.
3. Computation of DFT, IDFT using Direct and FFT methods.
4. Verification of Sampling Theorem
5. Design of Butterworth and Chebyshev of LP & HP filters.
6. Design of LPF using rectangular and Hamming, Kaiser Windows.
7. 16 bit Addition, Integer and fractional multiplication on 2407 DSP Trainer kit.
8. Generation of sine wave and square wave using DSP trainer kit.
9. Response of Low pass and High pass filters using DSP trainer kit.
10. Linear convolution using DSP trainer kit.
11. PWM Generation on DSP trainer kit.
12. Key pad interfacing with DSP. -..
13. LED interfacing with DSP. .
14. Stepper Motor Control using DSP.
15. DC Motor 4- quadrant speed control using DSP.
16. Three phase 1M speed control using DSP.
17. Brushless DC Motor Control.

**At least ten experiments should be completed in the semester**