

2012-13

**PVP SIDDHARTHA INSTITUTE OF TECHNOLOGY  
(COURSE STRUCTURE FOR AUTONOMOUS SCHEME)**

**I Year M. Tech. (Machine Design) M.E.**

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<b>0</b>	<b>3</b>	<b>2</b>

**MEMD1L1 - SIMULATION LABORATORY**

**I. Structural Analysis using any FEA Package** for different structures that can be discretised with 1-D, 2-D & 3-D elements

1. Static Analysis
2. Modal Analysis
3. Harmonic Analysis
4. Spectrum Analysis
5. Buckling Analysis
6. Analysis of Composites

**II. Thermal Analysis using any FEA Package** for different structures that can be discretised with 1-D, 2-D & 3-D elements

1. Steady state thermal analysis
2. Transient thermal analysis

**III. Transient analysis using any FEA Package** for different structures that can be discretised with 1-D, 2-D & 3-D elements

1. Linear
2. Non-Linear (Geometrical Non-linearity)

**References:**

User manuals of ANSYS