

### **AE-6162: Analysis of Shell Structures (3-0-3)**

Analysis of stresses and deformation of shells with and without bending, shells forming surfaces of revolution, asymptote methods, buckling of shells, nonlinear theories.

1. Kinematics of shell deformation membrane shells analysis, hyperbolic, elliptic paraboloidal shells (5 hours)
2. Bending of shells: Cylindric and spherical shells (8 hours)
3. Analysis of shells of composite materials (5 hours)
4. Asymptotic methods of analysis in shell theory (8 hours)
5. Buckling of stiffened and non-stiffened shells (5 hours)
6. Nonlinear theory of shells (6 hours)
7. Vibration of shells (6 hours)