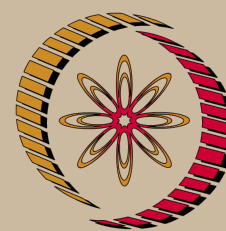


Engineering Mechanics - Video course

Engineering Mechanics

Topic	Number of Lectures
Module 1 <ul style="list-style-type: none"> Review of the three laws of motion and vector algebra Equilibrium of bodies I, Equilibrium of bodies II, Equilibrium of bodies III 	2 3
Module 2 <ul style="list-style-type: none"> Trusses, Friction 	2
Module 3 <ul style="list-style-type: none"> Properties of plane surfaces I: First moment and centroid of area Properties of surfaces II: Second moment of area 	1 1
Module 4 <ul style="list-style-type: none"> Method of Virtual Work 	1
Module 5 <ul style="list-style-type: none"> Motion in a plane: Introduction to polar coordinates Motion with constraints, Motion with friction and drag 	1 2
Module 6 <ul style="list-style-type: none"> Momentum, Work and Energy, Collisions 	3
Module 7 <ul style="list-style-type: none"> Rotational dynamics I: Angular momentum Rotational dynamics II: Rotation about a fixed axis Rigid body dynamics III: Rotation and Translation Rotational dynamics IV: Angular velocity and angular momentum Rotational dynamics V: Kinetic energy, angular momentum and torque in 3-D 	1 1 1 1 2
Module 8 <ul style="list-style-type: none"> Harmonic oscillator I: Introduction 	1



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Basic
courses (Sem
1 and 2)

Coordinators:
**Prof. Manoj K
Harbola**

 Department of
Electrical
Engineering IIT Kanpur

- Harmonic oscillator II: damped oscillator
- Harmonic oscillator III: Forced oscillations

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