

Introduction to Fluid Mechanics and Fluid Engineering - Video course



NP-TEL

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Mechanical Engineering

Coordinators:

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COURSE DETAIL

Lecture No	Topic/s
1	Introductory Concepts
2	Introductory Concepts (Contd.)
3	Introductory Concepts (Contd.)
4	Viscosity
5	Viscosity (Contd.)
6	Viscosity (Contd.) & Surface Tension
7	Surface Tension (Contd.) and Fluid Statics
8	Fluid Statics (Contd.)
9	Fluid Statics (Contd.)
10	Fluid Statics (Contd.) & Fluid Under Rigid Body Motion
	Fluid Kinematics

11	
12	Fluid Kinematics (Contd.)
13	Fluid Kinematics (Contd.)
14	Fluid Kinematics (Contd.)
15	Fluid Kinematics (Contd.)
16	Dynamics of Inviscid Flows
17	Dynamics of Inviscid Flows (Contd.)
18	Dynamics of Inviscid Flows (Contd.)
19	Dynamics of Inviscid Flows (Contd.)
20	Dynamics of Inviscid Flows (Contd.)
21	Integral Forms of Control Volume Conservation Equations (Reynolds Transport theorem)
22	Integral Forms of Control Volume Conservation Equations (Reynolds Transport theorem) (Contd.)
23	Integral Forms of Control Volume Conservation Equations (Reynolds Transport theorem) (Contd.)
24	Integral Forms of Control Volume Conservation Equations (Reynolds Transport theorem) (Contd.)
	Integral Forms of Control Volume

25	Conservation Equations (Reynolds Transport theorem) (Contd.)
26	Integral Forms of Control Volume Conservation Equations (Reynolds Transport theorem) (Contd.)
27	Integral Forms of Control Volume Conservation Equations (Reynolds Transport theorem) (Contd.)
28	Dynamics of Viscous Flows : Navier Stokes Equation
29	Dynamics of Viscous Flows : Navier Stokes Equation (Contd.)
30	Some Exact Solutions of Navier Stokes Equation
31	Some Exact Solutions of Navier Stokes Equation (Contd.)
32	Some Exact Solutions of Navier Stokes Equation (Contd.)
33	Introduction to Turbulence
34	Introduction to Turbulence (Contd.)
35	Introduction to Turbulence (Contd.)
36	Introduction to Turbulence (Contd.)
37	Boundary Layer Theory
38	Boundary Layer Theory (Contd.)
39	Boundary Layer Theory (Contd.)
40	Boundary Layer Theory (Contd.) & Flow Past Immersed Bodies

41	Flow Past Immersed Bodies (Contd.)
42	Potential Flow Past Immersed Bodies
43	Potential Flow(Contd.) and Flow Past Immersed Bodies of Special Shapes
44	Flow Past Immersed Bodies (Contd.) and Sports Ball Aerodynamics
45	Pipe Flows
46	Pipe Flows (Contd.)
47	Pipe Flows (Contd.)
48	Principle of Similarity and Dimensional Analysis
49	Introduction to Fluid Machines
50	Introduction to Fluid Machines (Contd.)
51	Introduction to Fluid Machines (Contd.)
52	Introduction to Fluid Machines (Contd.)
53	Introduction to Fluid Machines (Contd.)
54	Compressible Flows
55	Compressible Flows (Contd.)
56	Compressible Flows (Contd.)
	Compressible Flows (Contd.)

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58	Compressible Flows (Contd.)	