## Contents:

Part I: Elements of Fluid Mechanics: Fluids and their Properties ; Pressure and Head ; Static Forces on Surfaces. Buoyancy

Part II: Concepts of Fluid Flow: Motion of Fluid Particles and Streams; The Momentum Equation and its Applications; The Energy Equation and its Applications; Two-dimensional Ideal Flow

Part III: Dimensional Analysis and Similarity: Dimensional Analysis; Similarity

Part IV: Behaviour of Real Fluids: Laminar and Turbulent Flows in Bounded Systems; Boundary Layer; Incompressible Flow around a Body; Compressible flow around a Body

Part V: Steady Flow in Pipes, Ducts and Open Channels: Steady Incompressible Flow in Pipe and Duct Systems; Uniform Flow in Open Channels; Non-uniform Flow in Open Channels; Compressible Flow in Pipes

Part VI: Fluid Mechanics for Environmental Change: Environmental Change and Renewable Energy Technologies; Environmental Change and Rainfall Runoff Flow Modelling

Part VII: Unsteady Flow in Bounded Systems: Pressure Transient Theory and Surge Control; Simulation of Unsteady Flow Phenomena in Pipe, Channel and Duct Systems

Part VIII: Fluid Machinery: Theory, Performance and Application; Theory of Rotodynamic Machines; Performance of Rotodynamic Machines; Positive Displacement Machines;

**Machine-Network Interactions** 

Appendix 1: Some Properties of Common Fluids

Appendix 2: Values of Drag Coefficient C for Various Body Shapes