

ADVANCED HYDRAULICS

3-0-0-0-9

Basics: dimensional analysis, equations of continuity, motion, and energy, irrotational flow, drag and lift of immersed bodies; Pipe flow: laminar flow, turbulent flow, boundary layer theory, wall turbulent shear flow, free turbulent shear flow; Open Channel flow: energy depth relationships, uniform flow, gradually varied flow, hydraulic jump, rapidly varied flow, spatially varied flow unsteady flow.