Advanced Fluid Mechanics

Goal: Introduction to the instrumentation and procedures for flow, velocity and pressure measurement instrument. Flow visualization techniques.

Contents:

Introduction to flow, velocity and pressure measurements techniques
Theoretical and practical studies

Flow meters for internal and external flows
Orifice plate
Flow nozzle
Venturi tube

Optical methods:
LDA
Two phase Doppler anemometer
Two focus laser anemometer
Particle image velocimetry
Ultrasound and magnetic-induction flow meters
Flow visualization techniques in fluids gas and liquids