



Proficiency Course

Aug-Dec 2025

Turbomachinery I

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Dept. of Aerospace Engineering
Indian Institute of Science

About Us

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Objectives

To introduce Turbomachinery fundamentals in a rational framework so as to bolster the Aerothermodynamics of turbomachinery in general and Aeroengines in particular. This is expected to be followed up by a second course in Aeroengine turbomachinery.

Syllabus

Introduction
Dimensional Analysis and Similitude
Cascade flows
Axial Flow Turbines
Axial Flow Compressors
Centrifugal pumps and compressors
Aerothermodynamics of Jet propulsion



Eligibility

B E Mechanical or
Aerospace Engineering

Prerequisites

Basic courses in Fluid
Mechanics Gas Dynamics
and Thermodynamics

Who will benefit

Gas Turbine and
Turbomachinery design
Engineers and Academics

Schedule

Tuesday and
Thursday 6:30 to 8
PM

