



Semester : 3rd semester

Branche(s) : Mechanical, Production, Automobile & Aeronautical engineering

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Syllabus : [Click here to download](#)

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This book “***Fluid Mechanics and Machinery***” is written to serve the needs of under graduate students embarking introductory course in Fluid Mechanics and Machinery. This book is designed to meet the requirement of revised syllabus prescribed by the

***Anna
University***

for

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Semester Mechanical, Production, Automobile and Aeronautical engineering
students of its affiliated colleges.

Unit I broadly deal with units and dimensions, properties of fluids and application of control volume to continuity equation.

Unit II has an in depth dealing of laminar flow through pipes, boundary layer concepts, hydraulic and energy gradient, friction factor, minor losses, and flow through pipes in series and in parallel.

Unit III deals with dimensional analysis, models and similitude, and application of dimensionless parameters.

Basic concepts of rotodynamic machines, velocity triangles for radial flow and axial flow machines, centrifugal pumps, turbines and its performance curves are discussed in Unit IV.

Positive displacement pumps and rotary pumps are elaborately dealt in unit V.

Important solved problems and past examination Anna University question paper's solved problems have been added in each unit which will enable the students to score high marks in the University examinations. In addition to this, two mark questions and answers are added at the tail end of each unit.

With these features, we sincerely hope that this book would serve as a valuable text for the

students.

Though efforts have been taken aiming at a 'zero flaw' content, we do recognize that mistakes may have inadvertently crept in. We welcome constructive criticisms on any specific topics of this book.