Ak Jain Fluid Mechanics And Hydraulic Machines

LONG BRYNN

A First Course in Fluid Mechanics for Engineers John Wiley & Sons
This book introduces the subject of fluid dynamics from the first principles.

Fox and McDonald's Introduction to Fluid Mechanics
Springer Science & Business Media
Chapter 1. Properties of Fluids Chapter 2. Pressure and Its Measurement Chapter 3. Hydrostatic Forces on Surfaces Chapter 4. Buoyancy and Floatation Chapter 5. Kinematics of Flow and Ideal Flow Chapter 6. Dynamics of Fluid Flow Chapter 7. Orifices and Mouthpieces Chapter 8. Notches and Weirs Chapter 9. Viscous Flow Chapter 10. Turbulent Flow Chapter 11. Flow Through Pipes Chapter 12. Dimensional and Model Analysis Chapter 13. Boundary Layer Flow Chapter 14. Forces on Sub-merged Bodies Chapter 15. Compressible Flow Chapter 16. Flow in Open Channels Chapter 17. Impact of Jets and Jet Propulsion Chapter 18. Hydraulic Machines - Turbines Chapter 19. Centrifugal Pumps Chapter 20. Reciprocating Pumps Chapter 21. Fluid System Objective Type Questions Appendix Subject Index

Hydraulics And Fluid Mechanics Including Hydraulics Machines
New Age International
This book is intended to be used as a textbook for a first course in fluid mechanics. It stresses on principles and takes the students through the various development in theory and applications. A number of exercises are given at the end of each chapter, all of which have been successfully class-tested by the authors. It will be ideally suited for students taking an undergraduate degree in engineering in all universities in India.

A First Course in Fluid Dynamics Cambridge University Press
This Book Presents A Thorough And Comprehensive Treatment Of Both The Basic As Well As The More Advanced Concepts In Fluid Mechanics. The Entire Range Of Topics Comprising Fluid Mechanics Has Been Systematically Organised And The Various Concepts Are Clearly Explained With The Help Of Several Solved Examples.Apart From The Fundamental Concepts, The Book Also Explains Fluid Dynamics, Flow Measurement, Turbulent And Open Channel Flows And Dimensional And Model Analysis. Boundary Layer Flows And Compressible Fluid Flows Have Been Suitably Highlighted.Turbines, Pumps And Other Hydraulic Systems Including Circuits, Valves, Motors And Ram Have Also Been Explained. The Book Provides 225 Fully Worked Out Examples And More Than 1600 Questions Including Numerical Problems And Objective Questions. The Book Would Serve As An Exhaustive Text For Both Undergraduate And Post- Graduate Students Of Mechanical, Civil And Chemical Engineering. Amie And Competitive Examination Candidates As Well As Practising Engineers Would Also Find This Book Very Useful.

Principles Of Fluid Mechanics And Fluid Machines (second Edition)
Springer
Engineering Fluid Mechanics discusses applications of Bernoulli's equation, momentum theorem, turbomachines and dimensional analysis, discusses mechanics of laminar and turbulent flows, boundary layers, incompressible inviscid flows, compressible flows and computational fluid dynamics. Introduction to wave hydrodynamics, experimental techniques and analysis of experimental uncertainty.

Mechanics of Materials Springer Nature
The field of fluid mechanics is vast and has numerous, diverse applications. This book covers a wide range of topics, including basic formulations and their computer modelling as well as the relationship between experimental and analytical results. The emphasis is on new applications and research currently in progress.

Biofluid Mechanics Springer Nature
Hydraulic Machines (Fluid Machinery) has been designed as a textbook for engineering students specializing in mechanical, civil, electrical, hydraulics, chemical and power engineering. The highlights of the book are simple language supported by analytical and graphical illustrations. A large number of theory questions and numerical problems with solution hints have been annexed at the end of every chapter. A large number of objective questions have been included to help the students opting for competitive examinations. Five case studies based on research have been included which can be advantageously used by practising engineers pursuing research design and consultancy careers. Complete design of hydraulic machines has been demonstrated with the help of suitable examples. The book has been divided into six parts containing 13 chapters.

A Textbook of Fluid Mechanics Universities Press
A derivation of the averaged balance equations of fluid mechanics is presented including compressibility with alternative equations of state, viscous and thermal dissipation contributions, stream tube end boundary motion, and chemical reaction. Explicit utilization of the energy equation, or enthalpy equation in combination with the linear momentum and mass balances is investigated. Both the vorticity and Bernouilli equations are provided in alternative forms with thermodynamic energy assumptions to be used in engineering analysis and to discern assumptions.

Introduction to Fluid Mechanics and Fluid Machines Xlibris Corporation
Accompanying DVD-ROM contains ... "all chapters of the Springer Handbook."--Page 3 of cover.

Flow Through Open Channels McGraw Hill
This book has been written for the introductory course of fluid mechanics for students at the undergraduate and postgraduate levels. It provides the fundamental knowledge allowing students in engineering and natural sciences to enter fluid mechanics and its applications in various fields where fluid flows need to be dealt with. Volume 2 of this book contains ten chapters to help build the basic understanding of the subject matter. It adequately addresses the more complex and advanced issues on fluid mechanics in simplest of manners. The book covers laminar flow (viscous flow), turbulent flow, boundary layer theory, flow through pipe, pipe flow measurement, orifices and mouthpieces, flow past submerged bodies, flow through open channels, notches and weirs, and compressible flows. The concepts are supported by numerous solved examples and multiple-choice questions to aid self-learning in students. The book also contains illustrated diagrams for better understanding of the concepts. The book is extremely useful for the undergraduate and postgraduate students of engineering and natural sciences.

A Textbook of Fluid Mechanics and Hydraulic Machines
Springer Nature
This physics-first, design-oriented textbook explains concepts of gas turbine secondary flows, reduced-order modeling methods, and 3-D CFD.

EBOOK: Fluid Mechanics Fundamentals and Applications (SI units)
S. Chand Publishing
It is a long way from the first edition in 1976 to the present sixth edition in 1995.This edition is dedicated to the memory of Prof.S.P.Luthra(Once Head,Applied Mechanics Director,IIT Delhi)who wrote the foreword to its first edition.So many faculty members and students from different parts of the country ad from abroad have acceptedthe text and contributed to its development.The book has been improved and updated with every edition.

Fluid Mechanics I. K. International Pvt Ltd
div="" style="" This book comprises select proceedings of the 46th National Conference on Fluid Mechanics and Fluid Power (FMFP 2019). The contents of this book focus on aerodynamics and flow control, computational fluid dynamics, fluid structure interaction, noise and aero-acoustics, unsteady and pulsating flows, vortex dynamics, nuclear thermal hydraulics, heat transfer in nanofluids, etc. This book serves as a useful reference beneficial to researchers, academicians and students interested in the broad field of mechanics. ^

FLUID MECHANICS Springer Nature
This book is written as a guide to industrial professionals, young engineers, entrepreneurs, and industrialists, and other stakeholders who need a huge energy in process industries in different forms through industrial/process equipment for several human needs. But the performance and efficiency of the equipment are not really taken care of during the operations and

processes, which may be due to the dearth of proper knowledge or ignorance. Because of that, a large quantity of energy remains unutilized or wastage causing excess energy costs and subsequently generation of a huge quantity of carbon footprint indirectly which could be saved by proper performance and efficient management, and hence our Nature earth could be sustainable. In this book, the authors highlighted the performance and loss of efficiency of such industrial equipment during running. This attempt has been made to disseminate their sound, in-depth knowledge, and long experience achieved from several industries while working in different fields. The book explains the actual energy needed for performance, the reason for energy loss, and the scope of energy savings which can be possible by proper energy management. This book will also be apprehensible for all students of diploma, undergraduate & post graduate in the stream of electrical, mechanical, chemical, power, and all other engineering courses as a textbook as well as a reference book.
A Guide to Performance and Efficiency Assessment of Industrial Equipment Laxmi Publications
This book provides the fundamental knowledge allowing students in engineering and natural sciences to enter fluid mechanics and its applications in various fields where fluid flows need to be dealt with. This textbook is written for the introductory course of fluid mechanics for students at the undergraduate and postgraduate levels. Volume 1 of this textbook contains seven chapters to help build the basic understanding of the subject matter. It adequately covers the properties of fluids, pressure and its measurement, hydrostatic forces on surface, buoyancy, and floatation, kinematics of fluid motion, dynamics of fluid flow, and dimensional and model analysis. The concepts are supported by numerous solved examples and multiple-choice questions to aid self-learning in students. The textbook also contains illustrated diagrams for better understanding of the concepts. The book is extremely useful for the undergraduate and postgraduate students of engineering and natural sciences.
Advances in Fluid Mechanics X Springer Nature
This volume comprises the proceedings of the 42nd National and 5th International Conference on Fluid Mechanics and Fluid Power held at IIT Kanpur in December, 2014.The conference proceedings encapsulate the best deliberations held during the conference. The diversity of participation in the conference, from academia, industry and research laboratories reflects in the articles appearing in the volume. This contributed volume has articles from authors who have participated in the conference on thematic areas such as Fundamental Issues and Perspectives in Fluid Mechanics; Measurement Techniques and Instrumentation; Computational Fluid Dynamics; Instability, Transition and Turbulence; Turbomachinery; Multiphase Flows; Fluid-Structure Interaction and Flow-Induced Noise; Microfluidics; Bio-inspired Fluid Mechanics; Internal Combustion Engines and Gas Turbines; and Specialized Topics. The contents of this volume will prove useful to researchers from industry and academia alike.
Fluid Mechanics and Fluid Power Alpha Science Int'l Ltd.
The favourable and warm reception,which the previous editions and reprints of this popular book has enjoyed all over India and abroad has been a matter of great satisfaction for me.
Fluid Mechanics and Fluid Power (Vol. 3) PHI Learning Pvt. Ltd.
This book presents the select proceedings of the 48th National Conference on Fluid Mechanics and Fluid Power (FMFP 2021) held at BITS Pilani in December 2021. It covers the topics such as fluid mechanics, measurement techniques in fluid flows, computational fluid dynamics, instability, transition and turbulence, fluid-structure interaction, multiphase flows, micro- and nanoscale transport, bio-fluid mechanics, aerodynamics, turbomachinery, propulsion and power. The book will be useful for researchers and professionals interested in the broad field of mechanics.
Engineering Fluid Mechanics WIT Press
This book comprises the proceedings of the 26th International Conference on Hydraulics, Water Resources and Coastal Engineering (HYDRO 2021) focusing on broad spectrum of emerging opportunities and challenges in the field of fluid mechanics and hydraulics. It covers a range of topics, including, but not limited to, experimental and computational fluid mechanics, sediment dynamics, environmental impact assessment of water resources projects, environmental flows, pollutant transport, etc. Presenting recent advances in the form of illustrations, tables, and text, it offers readers insights for their own research. In addition, the book addresses fundamental concepts and studies in the field of flood forecasting and hydraulic structures, making it a valuable resource for both beginners and researchers wanting to further their understanding of hydraulics, water resources and coastal engineering.
Engineering Fluid Mechanics Cambridge University Press
Fluid Mechanics: Fundamentals and Applications is written for the first fluid mechanics course for undergraduate engineering students, with sufficient material for a two-course sequence. This Third Edition in SI Units has the same objectives and goals as previous editions: Communicates directly with tomorrow's engineers in a simple yet precise manner Covers the basic principles and equations of fluid mechanics in the context of numerous and diverse real-world engineering examples and applications Helps students develop an intuitive understanding of fluid mechanics by emphasizing the physical underpinning of processes and by utilizing numerous informative figures, photographs, and other visual aids to reinforce the basic concepts Encourages creative thinking, interest and enthusiasm for fluid mechanics New to this edition All figures and photographs are enhanced by a full color treatment. New photographs for conveying practical real-life applications of materials have been added throughout the book. New Application Spotlights have been added to the end of selected chapters to introduce industrial applications and exciting research projects being conducted by leaders in the field about material presented in the chapter. New sections on Biofluids have been added to Chapters 8 and 9. Addition of Fundamentals of Engineering (FE) exam-type problems to help students prepare for Professional Engineering exams.