

Domkundwar Power Plant Engineering

The book exposes the student to the various facets of nuclear fuel cycle right from mining to waste disposal. It introduces the student to the heat transfer and fluid flow processes in different types of reactors viz. Pressurized Water Reactor, Pressurized Heavy Water Reactor, Boiling Water Reactor, Gas Cooled Reactors and Fast Reactors besides aspects of nuclear safety. To help the student in better understanding Figures and Tables have been provided at various places in the text.

This Text-Cum-Reference Book Has Been Written To Meet The Manifold Requirement And Achievement Of The Students And Researchers. The Objective Of This Book Is To Discuss, Analyses And Design The Various Power Plant Systems Serving The Society At Present And Will Serve In Coming Decades India In Particular And The World In General. The Issues Related To Energy With Stress And Environment Up To Some Extent And Finally Find Ways To Implement The Outcome. Salient Features# Utilization Of Non-Conventional Energy Resources# Includes Green House Effect# Gives Latest Information S In Power Plant Engineering# Include Large Number Of Problems Of Both Indian And Foreign Universities# Rich Contents, Lucid Manner Useful book for GATE / IES / UPSC / PSUs and

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other competitive examinations. Latest objective type questions with answers. About 5000 objective type questions
7th New Delhi World Book Fair, 7-17 February 1986

Advances in Manufacturing and Industrial Engineering

Engineering Thermodynamics

Refrigeration and Air Conditioning

Power Station Engineering and Economy

The fourth edition of the book is richer in contents presenting updated information on the fundamental aspects of various processes related to thermal power plants. The major thrust in the book is given on the hands-on procedure to deal with the normal and emergency situations during plant operation. Beginning from the fundamentals, the book, explores the vast concepts of boilers, steam turbines and other auxiliary systems. Following a simple text format and easy-to-grasp language, the book explicates various real-life situation-related topics involving operation, commissioning, maintenance, electrical and instrumentation of a power plant. NEW TO THE FOURTH EDITION • The text now incorporates a new chapter on Environmental and Safety Aspects of Thermal Power Plants. • New sections on Softener, Water Treatment of Supercritical Boiler, Wet Mode and Dry Mode Operation of Supercritical Boiler, Electromatic Pressure Relief Valve, Pressure Reducing and Desuperheating (PRDS) System, Orsat Apparatus, and Safety Interlocks and Auto

Control Logics in Boiler have been added in related chapters. • Several sections have been updated to provide the reader with the latest information. • A new appendix on Important Information on Power Generation has been incorporated into the text. Dealing with all the latest coverage, the book is written to address the requirements of the undergraduate students of power plant engineering. Besides this, the text would also cater to the needs of those candidates who are preparing for Boiler Operation Engineers (BOE) Examination and the undergraduate/postgraduate students who are pursuing courses in various power training institutes. The book will also be of immense use to the students of postgraduate diploma course in thermal power plant engineering. KEY FEATURES • Covers almost all the functional areas of thermal power plants in its systematically arranged topics. • Incorporates more than 500 self-test questions in chapter-end exercises to test the student's grasp of the fundamental concepts and BOE Examination preparation. • Involves numerous well-labelled diagrams throughout the book leading to easy learning. • Provides several solved numerical problems that generally arise during the functioning of thermal power plants. Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. The essential reference On the Job, On the Exam Boiler Operations Questions and

Answers Second Edition Want to specify, operate, or troubleshoot a boiler system--fast? Whether you're an operator, inspector, maintenance engineer, or technician, this guide's your direct route to the answers you need in day-to-day boiler and pressure vessel operations. Chances are, any question that's likely to come up--whether it's on processes, equipment, safety, water treatment, steam generation, fuels, maintenance, inspection, repair, or some other issue--is answered in these pages. And this book's more than 3000 questions and answers closely parallel those you'll encounter on ASME's Boiler Operator's Exam, making Boiler Operations Questions and Answers a perfect study tool that helps you make the grade. With this unique guide, you can:

- *Solve mathematical problems step by step with 150 worked examples***
- *Update your Boiler Code expertise with a guide that includes all the latest changes***
- *Learn, remember, and apply the material more easily with 400+ illustrations***
- *Turn to reference sections and tables for quick access to data, definitions, and formulas***
- *Discover expert answers on all boiler and pressure vessel issues, from combustion through corrosion and nuclear generation***

Accessories Air Heaters Analytic Procedures Ash Handling Auxiliaries Calculations Chemical Treatments Circulation Combustion Condensers Contamination Corrosion Cycles Demineralization Deposits Draft Dust Collection Economizers Energy from Waste Evaporators Feed water Treatment Generators Heat Transfer

Heating Surfaces High-Pressure Hydraulic Systems Inspection Maintenance Materials Mountings Nuclear Generation Pollution Control Scaling Sludge Specific Heats Specifications Super heaters Temperature Control Turbines Water Treatment Including Dams Engineering, Hydrology and Fluid Power Engineering. For the student of B.E./B.Tech. Civil Engg., Institution of Engineers (India) U.P.S.C. Exam & Practising Engineers.

Books from India

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A Course in Power Plant Engineering

Boiler Operation Engineering

in S. I. units for B.E.; B.Tech.; U.P.S.C. (Engg. Services); Section B-A.M.I.E. (India)

Book envelops various analytical procedures including their principle and application in chemical and drug analysis.

This textbook has been designed for students of B.E./B.Tech Mechanical Engineering. It provides all the necessary information about power plants and steam power plants, nuclear and hydel power plants, diesel and gas turbine power plants, geothermal plants, ocean thermal plants, tidal power plants, and solar power plants, and the economics behind them. Key

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features: Each chapter includes a solved problem. The text is supplemented with illustrated diagrams, tables, flow charts, and graphs wherever required, for clear understanding. A summary at the end of each chapter helps students to review material presented. Review questions and exercise problems have been designed to enhance the engineering skills of the student.

Power Plant Performance discusses the different procedures and practices involved in the operation of power plants. The book is divided into four parts. Part I covers general considerations such as steam cycles; the sampling, analysis, and assessment of coal; and pumping – its related terms, the different types of pumps, and the determination of sizes and efficiency. Part II tackles the important measurements in power plants such as temperature, pressure, and gas and water flow. Part III deals with the operation of power plant components such as the boiler, turbine, and condensers. Part IV tackles other related topics such as steam turbine

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heat consumption tests; plant-operating parameters; and the costs of outages.

The text is recommended for professionals involved in the development, maintenance, and operation of power plants, especially those who would like to be familiar with the basics.

A Textbook of Fluid Mechanics and Hydraulic Machines

Thermal Engineering

An Introduction to Thermal Power Plant Engineering and Operation

Thermal Engineering in Power Systems

Power Plant Engineering

The astounding technological developments of our age depend on a safe, reliable, and economical supply of electric power. It stands central to continued innovations and particularly to the future of developing countries. Therefore, the importance of electric power engineering cannot be overstated, nor can the importance of this handbook to the power engineer. Until now, however, power engineers have had no comprehensive reference to help answer their questions quickly, concisely, and authoritatively-A one-stop reference written by electric power engineers specifically for electric power engineers.

This book presents selected peer reviewed papers from the International Conference on Advanced Production and Industrial Engineering (ICAPIE 2019). It covers a wide range of topics and latest research in mechanical systems engineering, materials engineering, micro-machining,

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renewable energy, industrial and production engineering, and additive manufacturing. Given the range of topics discussed, this book will be useful for students and researchers primarily working in mechanical and industrial engineering, and energy technologies.

The Book Provides A Glimpse Of The Fascinating Field Of Mechanical Engineering To The Entrants To Engineering Colleges.It Gives An Insight Into The Major Areas Of Mechanical Engineering, Like Power Production, Energy Alternatives, Production Alternatives And The Latest Computer Controlled Machine Tools.The Book Is Made Interesting With Numerous Sketches And Schematics - A Definite Advantage In Understanding The Subject.

Fundamentals of Nuclear Science and Engineering Second Edition

Objective Type Questions in Mechanical Engineering

A textbook of power plant engineering

Basic Power Plant Engineering

Nuclear Reactor Engineering (Principle and Concepts)

A unique, fix-it-fast reference for boiler operators, inspectors, maintenance engineers, and technicians.

Thoroughly updated to reflect the current ASME Boiler Code. Makes an ideal study aid for those taking the Boiler Operator's Exam--includes over 3,000 questions with answers, 150 solved numerical problems, and 410 helpful illustrations.

This is a textbook for students of Mechanical Engineering in polytechnics. It covers the syllabus in Thermal Engineering papers for two semesters. It is also suitable for engineering degree students (other than those in Mechanical Engineering). The book has used SI units. Diagrams and

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charts supplement the text.

This book is intended to meet the requirements of the fres engineers on the field to endow them with indispensable information, technical know-how to work in the power plant industries and its associated plants. The book provides a thorough understanding and the operating principles to solve the elementary and the difficult problems faced by the modern young engineers while working in the industries. This book is written on the basis of 'hands-on' experience, sound and in-depth knowledge gained by the authors during their experiences faced while working in this field. The problem generally occurs in the power plants during operation and maintenance. It has been explained in a lucid language.

PRACTICAL BOILER OPERATION ENGINEERING AND POWER PLANT, FOURTH EDITION

Boiler Operations Questions and Answers, 2nd Edition
Heat Power

Course In Heat & Mass Transfer

This textbook has been designed for a one-semester course on Power Plant Engineering studied by both degree and diploma students of mechanical and electrical engineering. It effectively exposes the students to the basics of power generation involved in several energy conversion systems so that they gain comprehensive knowledge of the operation of various types of power plants in use today. After a brief introduction to energy fundamentals including the environmental

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impacts of power generation, the book acquaints the students with the working principles, design and operation of five conventional power plant systems, namely thermal, nuclear, hydroelectric, diesel and gas turbine. The economic factors of power generation with regard to estimation and prediction of load, plant design, plant operation, tariffs and so on, are discussed and illustrated with the help of several solved numerical problems. The generation of electric power using renewable energy sources such as solar, wind, biomass, geothermal, tidal, fuel cells, magneto hydrodynamic, thermoelectric and thermionic systems, is discussed elaborately. The book is interspersed with solved problems for a sound understanding of the various aspects of power plant engineering. The chapter-end questions are intended to provide the students with a thorough reinforcement of the concepts discussed.

This Book Can Be Used As A Text Book For The Under Graduate As Well As Post Graduate Curriculum Of Different Universities And Engineering Institutions. Working Personnel, Engaged In Designing, Installing And Analyzing Of Different Renewable Energy Systems, Can Make Good

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Use Of This Book In Course Of Their Scheduled Activities. It Provides A Clear And Detailed Exposition Of Basic Principles Of Operation, Their Material Science Aspects And The Design Steps. Particular Care Has Been Taken In Elaborating The Concepts Of Hybrid Energy Systems, Integrated Energy Systems And The Critical Role Of Renewable Energy In Preserving Today'S Environment. References At The End Of Each Chapter Have Been Taken From Publications In Different Reputed Journals, Recent Proceedings Of National And International Conferences And Recent Web Sites Along With Ireda And Teri Reports.

Intended as a textbook for “applied” or engineering thermodynamics, or as a reference for practicing engineers, the book uses extensive in-text, solved examples and computer simulations to cover the basic properties of thermodynamics. Pure substances, the first and second laws, gases, psychrometrics, the vapor, gas and refrigeration cycles, heat transfer, compressible flow, chemical reactions, fuels, and more are presented in detail and enhanced with practical applications. This version presents the material using SI Units and has ample material on SI conversion,

steam tables, and a Mollier diagram. A CD-ROM, included with the print version of the text, includes a fully functional version of QuickField (widely used in industry), as well as numerous demonstrations and simulations with MATLAB, and other third party software. The Electric Power Engineering Handbook A Computer Approach (SI Units Version) Powder Metallurgy

*Fundamentals of Electrical Drives
Analytical Chemistry-A Qualitative and
Quantitative Approach*

The text begins by reviewing, in a simple and precise manner, the physical principles of three pillars of Refrigeration and Air Conditioning, namely thermodynamics, heat transfer, and fluid mechanics. Following an overview of the history of refrigeration, subsequent chapters provide exhaustive coverage of the principles, applications and design of several types of refrigeration systems and their associated components such as compressors, condensers, evaporators, and expansion devices. Refrigerants too, are studied elaboratively in an exclusive chapter. The second part of the book, beginning with the historical background

of air conditioning in Chapter 15, discusses the subject of psychrometrics being at the heart of understanding the design and implementation of air conditioning processes and systems, which are subsequently dealt with in Chapters 16 to 23. It also explains the design practices followed for cooling and heating load calculations. Each chapter contains several worked-out examples that clarify the material discussed and illustrate the use of basic principles in engineering applications. Each chapter also ends with a set of few review questions to serve as revision of the material learned.

This comprehensive volume provides a complete, authoritative, up-to-date reference for all aspects of power plant engineering. Coverage ranges from engineering economics to coal and limestone handling, from design processes to plant thermal heat balances. Both theory and practical applications are covered, giving engineers the information needed to plan, design, construct, upgrade, and operate power plants. Power Plant Engineering is the culmination of experience of hundreds of

engineers from Black & Veatch, a leading firm in the field for more than 80 years. The authors review all major power generating technologies, giving particular emphasis to current approaches. Special features of the book include: * More than 1000 figures and lines drawings that illustrate all aspects of the subject. * Coverage of related components and systems in power plants such as turbine-generators, feedwater heaters, condenser, and cooling towers. * Definitions and analyses of the features of various plant systems. * Discussions of promising future technologies. Power Plant Engineering will be the standard reference in the professional engineer's library as the source of information on steam power plant generation. In addition, the clear presentation of the material will make this book suitable for use by students preparing to enter the field.

Since the publication of the bestselling first edition, there have been numerous advances in the field of nuclear science. In medicine, accelerator based teletherapy and electron-beam therapy have become standard. New demands in

national security have stimulated major advances in nuclear instrumentation. An ideal introduction to the fundamentals of nuclear science and engineering, this book presents the basic nuclear science needed to understand and quantify an extensive range of nuclear phenomena. New to the Second Edition— A chapter on radiation detection by Douglas McGregor Up-to-date coverage of radiation hazards, reactor designs, and medical applications Flexible organization of material that allows for quick reference This edition also takes an in-depth look at particle accelerators, nuclear fusion reactions and devices, and nuclear technology in medical diagnostics and treatment. In addition, the author discusses applications such as the direct conversion of nuclear energy into electricity. The breadth of coverage is unparalleled, ranging from the theory and design characteristics of nuclear reactors to the identification of biological risks associated with ionizing radiation. All topics are supplemented with extensive nuclear data compilations to perform a wealth of calculations. Providing extensive coverage of physics,

nuclear science, and nuclear technology of all types, this up-to-date second edition of Fundamentals of Nuclear Science and Engineering is a key reference for any physicists or engineer.

Directory

Fundamentals of Renewable Energy Systems

POWER PLANT ENGINEERING

A Textbook Of Water Power Engineering Questions and Answers

Our lives and the functioning of modern societies are intimately intertwined with electricity consumption. We owe our quality of life to electricity. However, the electricity generation industry is partly responsible for some of the most pressing challenges we currently face, including climate change and the pollution of natural environments, energy inequality, and energy insecurity. Maintaining our standard of living while addressing these problems is the ultimate challenge for the future of humanity. The objective of this book is to equip engineering and science students and professionals to tackle this task. Written by an expert with over 25 years of combined academic and industrial experience in the field, this comprehensive textbook covers both fossil fuels and renewable power generation technologies. For each topic, fundamental principles, historical backgrounds, and state-of-the-art technologies are covered.

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Conventional power production technologies, steam power plants, gas turbines, and combined cycle power plants are presented. For steam power plants, the historical background, thermodynamic principles, steam generators, combustion systems, emission reduction technologies, steam turbines, condensate-feedwater systems, and cooling systems are covered in separate chapters. Similarly, the historical background and thermodynamic principles of gas turbines, along with comprehensive discussions on compressors, combustors, and turbines, are presented and then followed with combined cycle power plants. The second half of the book deals with renewable energy sources, including solar photovoltaic systems, solar thermal power plants, wind turbines, ocean energy systems, and geothermal power plants. For each energy source, the available energy and its variations, historical background, operational principles, basic calculations, current and future technologies, and environmental impacts are presented. Finally, energy storage systems as required technologies to address the intermittent nature of renewable energy sources are covered. While the book has been written with the needs of undergraduate and graduate college students in mind, professionals interested in widening their understanding of the field can also benefit from it.

Research and development in thermal engineering for power systems are of significant importance to many scientists who are engaged in research and

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design work in power-related industries and laboratories. This book focuses on variety of research areas including Components of Compressor and Turbines that are used for both electric power systems and aero engines, Fuel Cells, Energy Conversion, and Energy Reuse and Recycling Systems. To be competitive in today's market, power systems need to reduce the operating costs, increase capacity factors and deal with many other tough issues. Heat Transfer and fluid flow issues are of great significance and it is likely that a state-of-the-art edited book with reference to power systems will make a contribution for design and R&D engineers and the development towards sustainable energy systems.

A Course in Power Plant Engineering
A Course in Power Plant Engineering
Basic Power Plant Engineering
Power Plant Engineering
CRC Press
High Voltage Engineering
Books India

Fundamentals of Power Plant Engineering
Power Plant Performance
For Power Plant Professionals

Encouraged by the response to the first edition and to keep pace with recent developments, Fundamentals of Electrical Drives, Second Edition incorporates greater details on semi-conductor controlled drives, includes coverage of permanent magnet AC motor drives and switched reluctance motor drives, and highlights new trends in drive

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technology. Contents were chosen to satisfy the changing needs of the industry and provide the appropriate coverage of modern and conventional drives. With the large number of examples, problems, and solutions provided, Fundamentals of Electrical Drives, Second Edition will continue to be a useful reference for practicing engineers and for those preparing for Engineering Service Examinations.

Basic Mechanical Engineering