

Engineering Management Op Khanna

This book gathers extended versions of the best papers presented at the Global Joint Conference on Industrial Engineering and Its Application Areas (GJCIE), held in Vienna on July 20-21, 2017. They offer a snapshot of the current state of the art in three main related fields of research, namely industrial engineering, engineering and technology management, and healthcare systems engineering management. The book is intended to integrate theory and practice and to merge different perspectives, from the academic to the industrial and governmental one.

This book is meant for diploma students of chemical engineering and petroleum engineering both for their academic programmes as well as for competitive examination. This book Contains 18 chapters covering the entire syllabus of diploma course in chemical engineering and petrochemical engineering. This book in its present form has been designed to serve as an encyclopedia of chemical engineering so as to be ready reckoner apart from being useful for all types of written tests and interviews faced by chemical engineering and petrochemical engineering diploma students of the country. Since branch related subjects of petrochemical engineering are same as that of chemical engineering diploma students, so this book will be equally useful for diploma in petrochemical engineering students. This is the revised edition of the book with new chapters to incorporate the latest developments in the field. It contains approx. 200 problems from various competitive examinations (GATE, IES, IAS) have been included. The author does hope that with this, the utility of the book will be further enhanced.

Energy Technology

Khanna's Multichoice Questions & Answers in Metallurgical Engineering

The Theory of Machines

Data Analytics and Management

Industrial Engineering and Production Management

The present multicolor edition has been thoroughly revised and brought up-to-date. Multicolor pictures have been added to enhance the content value and to give the students an idea of what he will be dealing in reality, and to bridge the gap between theory and practice. This book has already been included in the 'suggested reading' for the A.M.I.E. (India) examinations.

This book includes original unpublished contributions presented at the International Conference on Data Analytics and Management (ICDAM 2020), held at Jan Wzykowski University, Poland, during June 2020. The book covers the topics in data analytics, data management, big data, computational intelligence, and communication networks. The book presents innovative work by leading academics, researchers, and experts from industry which is useful for young researchers and students.

Agility has become very important for the industries today as the lifetimes of the products are

continuously shrinking. This book provides an excellent opportunity for updating understanding of agile methods from the design, manufacturing and business process perspectives, whether one is an industrial practitioner, academic researcher engineer or business graduate student. This volume is a compilation of various important aspects of agility consisting of systemic considerations in manufacturing, agile software systems, agile business systems, agile operations research, flexible manufacturing systems, advanced manufacturing systems with improved materials and mechanical behavior of products, agile aspects of design, clean and green manufacturing systems, environment, agile defence systems.

Production And Operations Management

Industrial Engineering and Management

Environmental Pollution and Control

Industrial Organization and Management

Khanna's Objective Type Questions & Answers in Chemical Engineering

This book is Designed for the students of Engineering and Technology as well as specially for Mechanical Engineering Degree and Diploma students. The teaching of this course faces difficulty in explaining the various concept of machine drawing viz., orthographical projection, sectioning, complicated mechanical assembly drawing etc. Sometimes explanation requires some three dimensional and complicated drawing to be drawn on the black board which is quite impossible due to the time constraint of class. This book is an outcome of the strong need felt by students offering the course and the teaching need felt by us. The teacher can explain the related concepts, drawing methods and uses of various parts being drawn etc. in each practical class without bothering the black board. The subject matter has been compressed from the view point of Mechanical Engineering students. The book also contains Basic Drawing Softwares which describes about the basics of Auto-CAD, CATIA, PROE, ANSYS etc. which is useful for today's need of Engineering & Technology.

This Book Presents Lucid Treatment Of A Wide Range Of Issues Involved In Production And Operations Management. It Focuses On The Latest Techniques In Production Planning And Control Considered To Be Pivotal For Organizations, Which Aim At Maximizing Their Productivity And Profitability. The Book Further Discusses In Detail The Production System Concept, Facility Location, Plant Layout Design, Production Scheduling, Mass Production Techniques Such As Assembly Line Balancing Maintenance Planning And Control, Scheduling, Quality Control; And Modern Production Management Tools That Include Cim, Tqm And Iso 9000 Series. Primarily Designed As A Textbook For Various Courses Like Bbm, Bba, B.Com., Mba And Also Useful For Students Pursuing Courses, Production And Operations Management, Mechanical, Industrial And Production Engineering Of Bangalore And Other Indian Universities. Salient Features: * Book Is Written In Simple And Lucid Style * Contents Are Presented In A Most Meticulous Manner * Charts Are Provided For Easy Understanding Of The Concepts * Exercises Are Designed For Self-Evaluation And Include Objective Type, Analytical Type And Application Type Questions * Contains Examination Question Bank * Contains Exhaustive Glossary Of Terminologies * Focuses On Materials Management Concepts And Techniques * Focuses On Plant Location And Layout Concepts * Focuses On Statistical Quality Control Concepts And Technique * Focuses On Industrial Engineering Concepts Such As Time Motion Study, Maintenance Management, Waste Management & Automation

This book describes the essential features of Solid & Hazardous Waste Management covering the following topic: Introduction to Solid Waste Management Municipal Solid Waste (MSW) Management Industrial Solid Waste Management Radioactive Waste (BMW) Management e-Waste Management Integrated Solid Waste Management (ISWM) Besides, Short question & answers and multiple-choice questions & answers drawn from the examination papers of

various engineering colleges and professional bodies examination given at the end of the book enhances its utility for the students. The book will be useful for degree, postgraduate & diploma courses in engineering, AMIE, AMIIM & AMMIIIChe examinations.

Essentials of Metallurgical Thermodynamics

Textbook of Refrigeration and Air Conditioning

Industry 4.0: Industrial Revolution of the 21st Century

Principles of Management

Proceedings of ICDAM

Complex environmental problems are often reduced to an inappropriate level of simplicity. While this book does not seek to present a comprehensive scientific and technical coverage of all aspects of the subject matter, it makes the issues, ideas, and language of environmental engineering accessible and understandable to the nontechnical reader. Improvements introduced in the fourth edition include a complete rewrite of the chapters dealing with risk assessment and ethics, the introduction of new theories of radiation damage, inclusion of environmental disasters like Chernobyl and Bhopal, and general updating of all the content, specifically that on radioactive waste. Since this book was first published in 1972, several generations of students have become environmentally aware and conscious of their responsibilities to the planet earth. Many of these environmental pioneers are now teaching in colleges and universities, and have in their classes students with the same sense of dedication and resolve that they themselves brought to the discipline. In those days, it was sometimes difficult to explain what indeed environmental science or engineering was, and why the development of these fields was so important to the future of the earth and to human civilization. Today there is no question that the human species has the capability of destroying its collective home, and that we have indeed taken major steps toward doing exactly that. And yet, while, a lot has changed in a generation, much has not. We still have air pollution; we still contaminate our water supplies; we still dispose of hazardous materials improperly; we still destroy natural habitats as if no other species mattered. And worst of all, we still continue to populate the earth at an alarming rate. There is still a need for this book, and for the college and university courses that use it as a text, and perhaps this need is more acute now than it was several decades ago. Although the battle to preserve the environment is still raging, some of the rules have changed. We now must take into account risk to humans, and be able to manipulate concepts of risk management. With increasing population, and fewer alternatives to waste disposal, this problem is intensified. Environmental laws have changed, and will no doubt continue to evolve. Attitudes toward the environment are often couched in what has become known as the environmental ethic. Finally, the environmental movement has become powerful politically, and environmentalism can be made to serve a political agenda. In revising this book, we have attempted to incorporate the evolving nature of environmental sciences and engineering by adding chapters as necessary and eliminating material that is less germane to today's students. We have

nevertheless maintained the essential feature of this book -- to package the more important aspects of environmental engineering science and technology in an organized manner and present this mainly technical material to a nonengineering audience. This book has been used as a text in courses which require no prerequisites, although a high school knowledge of chemistry is important. A knowledge of college level algebra is also useful, but calculus is not required for the understanding of the technical and scientific concepts. We do not intend for this book to be scientifically and technically complete. In fact, many complex environmental problems have been simplified to the threshold of pain for many engineers and scientists. Our objective, however, is not to impress nontechnical students with the rigors and complexities of pollution control technology but rather to make some of the language and ideas of environmental engineering and science more understandable.

This book addresses a wide range of issues relating to the theoretical substantiation of the necessity of Industry 4.0, the development of the methodological tools for its analysis and evaluation, and practical solutions for effectively managing this process. It particularly focuses on solving the problem of optimizing the development of Industry 4.0 in the context of knowledge economy formation. The book presents the authors' approach to studying the process of Industry 4.0 formation in connection with knowledge economy, and approach that allows the process to be studied in connection with the existing socio-economic and technological conditions. As a result, the conclusions and recommendations could be applied to modern economic systems and do not require any further elaboration. The presented research is based on modern economic theory scientific and methodological tools, including the tools of the theory of economic cycles, the theory of games, and the institutional economic theory. Raising awareness of the problem of Industry 4.0 formation, the book is of interest to a wide audience, including not only specialists and experts with a detailed knowledge of the topic, but also scholars, lecturers, and undergraduates of various fields of economics.

Energy Technology is an integral part of the degree, postgraduate & diploma curriculum of various branches of engineering. besides, it is also a compulsory paper for various associate membership examination conducted by professional bodies like institution of engineering (AMIE), Indian Institute of Metals (AMIIM), Indian Institute of Chemical Engineering (AMIChE), BEE etc. This book has been prepared strictly as per the syllabus of these examinations. Short questions & answer and multiple-choice questions & answers drawn from the examination papers of various engineering colleges and professional bodies examinations given at the end of the book enhances its utility for the student.

With an Appendix Introducing 'ISO 9000 Quality Systems'

A Textbook of Machine Design

Elements of Petroleum Refinery Engineering

Human Resource Management

Engineering Materials and Metallurgy

For close to 20 years, “Industrial Engineering and Production Management” has been a successful text for students of Mechanical, Production and Industrial Engineering while also being equally helpful for students of other courses including Management. Divided in 5 parts and 52 chapters, the text combines theory with examples to provide in-depth coverage of the subject.

In the present edition, authors have made sincere efforts to make the book up-to-date. A notable feature is the inclusion of two chapters on Power System. It is hoped that this edition will serve the readers in a more useful way.

This book contains detailed description of solid, liquid, gaseous fuels, combustion and furnaces. Beside short questions and answers and multiple choice questions & answers and multiple choice questions; answers drawn from the examination papers of various engineering Colleges and professional bodies examinations are also included. The book will be useful for degree & diploma curriculum of various branches of Engineering and for various associate membership examinations conducted by professional bodies like Institution of Engineers (AMIE), Indian Institute of Metals (AMIIM), Indian Institute of Chemical Engineers (AMICE), Institute of Chemicals etc.

Industrial Engineering in the Industry 4.0 Era

Principles of Management MG-1351

A Textbook of Production Engineering

Macroeconomics

Control System Design

Delves into the core and functional areas in the upstream oil and gas industry covering a wide range of operations and processes Oil and gas exploration and production (E&P) activities are costly, risky and technology-intensive. With the rise in global demand for oil and fast depletion of easy reserves, the search for oil is directed to more difficult areas – deepwater, arctic region, hostile terrains; and future production is expected to come from increasingly difficult reserves – deeper horizon, low quality crude. All these are making E&P activities even more challenging in terms of operations, technology, cost and risk. Therefore, it is necessary to use scarce resources judiciously and optimize strategies, cost and capital, and improve business performance in all spheres of E&P business. Optimization and Business Improvement Studies in Upstream Oil and Gas Industry contains eleven real-life optimization and business improvement studies that delve into the core E&P activities and functional areas covering a wide range of operations and processes. It uses various quantitative and qualitative techniques, such as Linear Programming, Queuing theory, Critical Path Analysis, Economic analysis, Best Practices Benchmark, Business Process Simplification etc. to optimize Productivity of drilling operations Controllable rig time loss Deepwater exploration strategy Rig move time and activity schedule Offshore supply vessel fleet size Supply chain management system Strategic workforce and human resource productivity Base oil price for a country Standardize consumption of materials Develop uniform safety standards for offshore installations Improve organizational efficiency through business process

simplification The book will be of immense interest to practicing managers, professionals and employees at all levels/ disciplines in oil and gas industry. It will also be useful to academicians, scholars, educational institutes, energy research institutes, and consultants dealing with oil and gas. The work can be used as a practical guide to upstream professionals and students in petroleum engineering programs.

Thermodynamics is the very basic science to appreciate all engineering disciplines, more particularly the chemical, metallurgical and mechanical engineering in terms of the efficiencies in various related operations that is why metallurgical thermodynamics has been developed specifically to understand the metallurgical engineering processes and their energy efficiencies. Any change is driven by the potential driving it. Thermodynamics is the tool to appreciate that potential and to assess the related energy efficiency. Hence thermodynamics is the basic tool that helps to assess finally the economics of any metallurgical process. The more one understands it the better. The present book attempts to explain the very basic thermodynamic concepts underlying metallurgical engineering operations and therefore the related economics.

This well-balanced text with its fine blend of theory and applications, gives an in-depth understanding of production and operations management in an easy-to-understand style. Employing an innovative approach, the author, shows how the use of modern advanced technology gives a boost to production processes and significantly helps production and operations management. The book clearly demonstrates the use of special software packages to solve actual problems. Retaining the original contents, the book, divided into six parts, explains following in its second edition WHY Necessity of production and operations management WHAT Product/service design, product quality and other issues HOW Process design and related issues WHERE Plant location, layout and capacity WHEN Planning and control of production operations WHO Human relations issues that affect production and operations Key features

- Learning objectives at the beginning of each chapter enable readers to focus on important points of a chapter.
- A concept quiz at the end of each chapter helps the reader to evaluate his understanding of the concepts explained in a chapter.
- Numerous solved examples, and answers to all chapter-end numerical problems have been provided.
- Covers Service Operations in almost every chapter in addition to the traditional manufacturing operations.
- A section with 10 progressive short case studies gives real-world experience.
- Chapter-end summary helps readers to review and recapitulate the key concepts. The students of management and

engineering (mechanical, production and industrial engineering) will be benefited with the book. An instructor manual containing PowerPoint slides and solutions to chapter-end problems is available. The book is recommended by AICTE for PGDM course. The link is www.aicte-india.org/modelsyllabus.php

PRODUCTION AND OPERATIONS MANAGEMENT
Industrial Engineering And Management
Production Technology

Basic Electrical Engineering

This book is meant for diploma & degree student of metallurgical engineering for their academic programs as well as for various competitive examination for securing jobs. This book has been structured in three section. First section contains multiple choice type questions of various subjects of metallurgical engineering. Second section contains chapter wise question of GATE (Graduate Aptitude Test in Engineering) from 1991 to 2016.

Third section contains SHORT QUESTIONS & ANSWERS in METALLURGICAL ENGINEERING. Fourth section contains APPENDICES containing Glossary of terms related to Metallurgical Engineering and Q&A of GATE-2017. This book has been designed to serve as "Hand Book of Metallurgical Engineering" which will be useful for various competitive examinations for recruitment in various public sector & Private Sector companies as well as for GATE Examination. Question have been arranged subject wise and answers are given at the bottom of the page.

The Multicolr Edition Has Been thoroughly revised and brought up-to-date. Multicolor pictures have been added to enhance the content value and to give the students and idea of what he will be dealing in relity, and to bridge the gap between theory and Practice.

The book "Industrial Engineering and Management" covers the syllabus of the subjects Industrial Engineering, Industrial Management, Production Planning and Control, Production Management, Engineering Economics and Costing, Industrial Organization, Principles of Management prescribed by different Indian Universities. The book is also useful for the students of management courses, section B of AIME, and U.P.S.C Engineering Services Examination. Efforts have been made to present the subject-matter in concise, compact and simple language. The theoretical concepts have been supported by large number of numerical illustrations to provide clarity.

Objective Electrical Technology

Optimization and Business Improvement Studies in Upstream Oil and Gas Industry

Industrial Engineering & Management 2e

Machine Drawing

Process Planning and Cost Estimation

This book is targeted to benefit the diploma in engineering students. Degree in engineering students (B.Tech-Chemical Engineering, Petroleum Engineering, Petrochemical Engineering, Aeronautical Engg., AMIE, AMIICHE, students etc. M. students of various disciplines pursuing courses on petroleum refining. Faculty n teaching staff of engineering college/IIT's/NIT"s etc. Practicing petroleum engineers/consultants/refiners in various private sector/public sector undertakin state/central government departments, NGO's etc. Students of foreign universit developing countries pursuing diploma/degree/postgraduate courses in various engineering disciplines having a paper in petroleum refinery engineering.?

This book covers the theory and mathematics needed to understand the concep control system design. Chapter 1 deals with compensation network design. Nonl control systems, including phase-plane analysis and the Delta method are presen chapter 2. The analysis and design aspects based on the state variable approach presented in Chapter 3. The discrete time control systems form the basis for th digital control systems in Chapter 4, covering the frequency response, root locu analysis, and stability considerations for discrete-time control systems. The stab analysis based on the Lyapunov method is given in chapter 5. The appendices inc US government articles on industrial control systems (NIST) and the control sys design for a solar energy storage system (U.S. Dept. of Energy). Concepts in the supported by numerical examples. Features: • Covers the theory and mathematic needed to understand the concepts in control system design • Includes two U.S government articles on industrial control systems (NIST) and the control system for a solar energy storage system (U.S. Department of Energy)

The book has been designed for undergraduate students studying Mechanical Engineering or Industrial Engineering. It discusses various concepts and provides practical knowledge related to the area of Industrial Engineering and Management book lucidly covers Project Management, Quality Management, Costing etc. in de develop the required skills among the students.

Selected papers from the Global Joint Conference on Industrial Engineering and I Application Areas, GJCIE 2017, July 20-21, Vienna, Austria

Industrial Engineering and Management with an Appendix Introducing Elements of Fuel & Combustion Technology

Agile Manufacturing Systems

Management Concepts for Civil Engineers

This treatise on Engineering Materials and Metallurgy contains comprehensive treatment of the matter in simple, lucid and direct language and envelopes a large number of figures which reinforce the text in the most efficient and effective way. The book comprise five chapters(excluding basic concepts)in all and fully and exhaustively covers the syllabus in the above mentioned subject of 4th.Semester

Mechanical, Production, Automobile Engineering and 2nd semester Mechanical disciplines

of Anna University.

Elements of Solid & Hazardous Waste Management