

Basic Automobile Engineering

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Encyclopedia of Automotive Engineering David A. Crolla 2015

Motor Vehicle Structures Jason C. Brown 2002

An Introduction to Modern Vehicle Design Julian Happian-Smith 2001 'An Introduction to Modern Vehicle Design' provides a thorough introduction to the many aspects of passenger car design in one volume. Starting with basic principles, the author builds up analysis procedures for all major aspects of vehicle and component design. Subjects of current interest to the motor industry, such as failure prevention, designing with modern materials, ergonomics and control systems are covered in detail, and the author concludes with a discussion on the future trends in automobile design. With contributions from both academics lecturing in motor vehicle engineering and those working in the industry, "An Introduction to Modern Vehicle Design" provides students with an excellent overview and background in the design of vehicles before they move on to specialised areas. Filling the niche between the more descriptive low level books and books which focus on specific areas of the design process, this unique volume is essential for all students of automotive engineering. Only book to cover the broad range of topics for automobile design and analysis procedures Each topic written by an expert with many years experience of the automotive industry

A Textbook of Automobile Engineering SK Gupta A Textbook of Automobile Engineering is a comprehensive treatise which provides clear explanation of vehicle components and basic working principles of systems with simple, unique and easy-to-understand illustrations. The textbook also describes the latest and upcoming technologies and developments in automobiles. This edition has been completely updated covering the complete syllabi of most Indian Universities with the aim to be useful for both the students and faculty members. The textbook will also be a valuable source of information and reference for vocational courses, competitive exams, interviews and working professionals.

Automobile Mechanical and Electrical Systems Tom Denton 2017-08-25 The second edition of Automobile Mechanical and Electrical Systems concentrates on core technologies to provide the essential information required to understand how different vehicle systems work. It gives a complete overview of the components and workings of a vehicle from the engine through to the chassis and electronics. It also explains the necessary tools and equipment needed in effective car maintenance and repair, and relevant safety procedures are included throughout. Designed to make learning easier, this book contains: Photographs, flow charts and quick reference tables Detailed diagrams and clear descriptions that simplify the more complicated topics and aid revision Useful features throughout, including definitions, key facts and 'safety first' considerations. In full colour and with support materials from the author's website (www.automotive-technology.org), this is the guide no student enrolled on an automotive maintenance and repair course should be without.

Introduction to Automotive Engineering R. Sakthivel 2019-04-09 The automotive industry is one of the largest and most important industries in the world. Cars, buses, and other engine-based vehicles abound in every country on the planet, and it is continually evolving, with electric cars, hybrids, self-driving vehicles, and so on. Technologies that were once thought to be decades away are now on our roads right now. Engineers, technicians, and managers are constantly needed in the industry, and, often, they come from other areas of engineering, such as electrical engineering, process engineering, or chemical engineering. Introductory books like this one are very useful for engineers who are new to the industry and need a tutorial. Also valuable as a textbook for students, this introductory volume not only covers the basics of automotive engineering, but also the latest trends, such as self-driving vehicles, hybrids, and electric cars. Not only useful as an introduction to the science or a textbook, it can also serve as a valuable reference for technicians and engineers alike. The volume also goes into other subjects, such as maintenance and performance. Data has always been used in every company irrespective of its domain to improve the operational efficiency and performance of engines. This work deals with details of various automotive systems with focus on designing various components of these system to suit the working conditions on roads. Whether a textbook for the student, an introduction to the industry for the newly hired engineer, or a reference for the technician or veteran engineer, this volume is the perfect introduction to the science of automotive engineering.

Fundamentals of Automotive and Engine Technology Konrad Reif 2014-06-16 Hybrid drives and the operation of hybrid vehicles are characteristic of contemporary automotive technology. Together with the electronic driver assistant systems, hybrid technology is of the greatest importance and both cannot be ignored by today's car drivers. This technical reference book provides the reader with a firsthand comprehensive description of significant components of automotive technology. All texts are complemented by numerous detailed illustrations.

AUTOMOBILE ENGINEERING KAMARAJU RAMAKRISHNA 2012-12-06 The book is an excellent introduction to the anatomy of an automobile and the functions of its major and minor components. It brings together all the conventional and modern concepts in automobile engineering in a clear, practical style appropriately supported by line sketches, isometric views, cut-away diagrams and photographs. All the recent advances in automobiles such as automatic transmission, anti-lock braking system, traction control, power-assisted brakes, power steering, electric car, electronic control concepts, special fuels, and modern materials are also covered. Important tips for troubleshooting and maintenance are also given in a separate chapter. The text is designed to provide students with an excellent foundation in automobile engineering, and also to serve as a useful reference for industry personnel engaged in design, manufacturing, repair, maintenance, and marketing of automobiles. As a textbook, it caters to the requirement of undergraduate students of mechanical engineering for their paper on Automobile Engineering. For those pursuing degree and diploma courses in the Automobile Engineering branch, this book is an excellent introduction for more advanced studies on different systems of automobiles.

Automotive Systems G.K. Awari 2021-01-27 This book introduces the principles and practices in automotive systems, including modern automotive systems that incorporate the latest trends in the automobile industry. The fifteen chapters present new and innovative methods to master the complexities of the vehicle of the future. Topics like vehicle classification, structure and layouts, engines, transmissions, braking, suspension and steering are illustrated with modern concepts, such as battery-electric, hybrid electric and fuel cell vehicles and vehicle maintenance practices. Each chapter is supported with examples, illustrative figures, multiple-choice questions and review questions. Aimed at senior undergraduate and graduate students in automotive/automobile engineering, mechanical engineering, electronics engineering, this book covers the following: Construction and working details of all modern as well as fundamental automotive systems Complexities of operation and assembly of various parts of automotive systems in a simplified manner Handling of automotive systems and integration of various components for smooth functioning of the vehicle Modern topics such as battery-electric, hybrid electric and fuel cell vehicles Illustrative examples, figures, multiple-choice questions and review questions at the end of each chapter

Automotive Handbook Robert Bosch 1996 Bosch literature sets the standard for concise explanations of the function and engineering of automotive systems and components: from Fuel Injection, to Anti-lock Braking Systems, to Alarm Systems. These books are a great resource

for anyone who wants quick access to advanced automotive engineering information. The vocational or technical school instructor faced with tough questions from inquiring students will find welcome answers in their pages. Advanced enthusiasts who want to understand what goes on under the skin of today's sophisticated automobiles will find the explanations they seek. And motivated technicians who want to cultivate a confident expertise will find the technical information they need. Both handbooks are fully stitched, case bound and covered with strong but flexible "shop-proof" vinyl for long life. Each of these exhaustive reference manuals includes application-specific material gathered from the engineers of leading European auto companies and other original equipment manufacturers, as well as input from leading authorities at universities throughout the world. Each book is edited by the same Bosch technical experts who design and build the world's finest automotive and diesel systems and components. In every field there's a single, indispensable reference work that rises above the rest. In the automotive world that reference is the blue Automotive Handbook from Bosch. Now in its brand new 4th edition and expanded to over 840 pages. With more than 1,000 cut-away illustrations, diagrams, tables and sectional drawings, this definitive encyclopedia of automotive engineering information is both exhaustive and accessible, making even sophisticated automotive concepts easy to visualize and understand. The 4th edition includes an all-new, comprehensive section on Vehicle Dynamics Control (VDC), that covers traction control system design and operation. 19 other subject areas have been expanded and updated. Section headings in the new 4th edition include: -- Vehicle Dynamics Control (NEW!) -- Sensors -- Reliability -- Lighting -- Air supply -- Mathematics -- Navigation systems -- Braking equipment -- Power transmission -- Chassis -- Starting and ignition -- Comfort and safety -- General technical knowledge -- Motor-vehicle dynamics -- Vehicle bodies, passenger and commercial -- Symbols used in vehicle electrical systems -- Vehicle windows and window cleaning -- Heating and air conditioning -- Communication and information systems -- Vehicle hydraulics and pneumatics -- Environmental effects of vehicle equipment -- Actuators -- Quality -- Vehicle drives -- Fuel metering -- Physics -- Driver information -- Materials science -- Road-vehicle systems -- Alarm & signaling systems -- Engine exhaust gases -- Road traffic legislation

Automotive Science and Mathematics Allan Bonnick 2008-02-22 Automotive technicians and students need a firm grasp of science and technology in order to fully appreciate and understand how mechanisms and systems of modern vehicles work. *Automotive Science and Mathematics* presents the necessary principles and applications with all the examples and exercises relating directly to motor vehicle technology and repair, making it easy for automotive students and apprentices to relate the theory back to their working practice. The coverage of this book is based on the syllabus requirements of the BTEC First in Vehicle Technology, BTEC National in Vehicle Repair and Technology, and the IMI Certificate and Diploma in Vehicle Maintenance and Repair, but will help all automotive students and apprentices at levels 2 and 3 and up to and including HNC/HND, foundation and first degree with their studies and in achieving the Key Skill 'Application of Number' at levels 2 and 3. The book is designed to cater for both light and heavy vehicle courses. Full worked solutions of most exercises are available as a free download for lecturers only from <http://textbooks.elsevier.com>. Allan Bonnick is a motor vehicle education and training consultant and was formerly Head of Motor Vehicle Engineering, Eastbourne College. He is the author of several established automotive engineering textbooks.

Automotive Mechanics, 2e Heitner 2006-02-01

Objective Automobile Engineering

Automotive Engineering Fundamentals Richard Stone 2004 Gives students of automotive engineering a basic understanding of the principles involved with designing a vehicle and includes details of engines and transmissions, vehicle aerodynamics and computer modelling.

Ingenious Jason Fagone 2013-11-05 An epic tale of invention, in which ordinary people's lives are changed forever by their quest to engineer a radically new kind of car. In 2007, the X Prize Foundation announced that it would give \$10 million to anyone who could build a safe, mass-producible car that could travel 100 miles on the energy equivalent of a gallon of gas. The challenge attracted more than one hundred teams from all over the world, including dozens of amateurs. Many designed their cars entirely from scratch, rejecting decades of thinking about what a car should look like. Jason Fagone follows four of those teams from the build stage to the final race and beyond—into a world in which destiny hangs on a low drag coefficient and a lug nut can be a beautiful talisman. The result is a gripping story of crazy collaboration, absurd risks, colossal hopes, and poignant losses. In an old pole barn in central Illinois, childhood sweethearts hack together an electric-powered dreamboat, using scavenged parts, forging their own steel, and burning through their life savings. In Virginia, an impassioned entrepreneur and his hand-picked squad of speed freaks pool their imaginations and build a car so light that you can push it across the floor with your thumb. In West Philly, a group of disaffected high school students come into their own as they create a hybrid car with the engine of a Harley motorcycle. And in Southern California, the early favorite—a start-up backed by millions in venture capital—designs a car that looks like an alien egg. *Ingenious* is a joyride. Fagone takes us into the garages and the minds of the inventors, capturing the fractious yet beautiful process of engineering a bespoke machine. Suspenseful and bighearted, this is the story of ordinary people risking failure, economic ruin, and ridicule to create something vital that Detroit had never pulled off. As the Illinois team wrote in chalk on the wall of their barn, "SOMEBODY HAS TO DO SOMETHING. THAT SOMEBODY IS US."

Fundamentals of Automotive and Engine Technology Konrad Reif 2014-07-10 Hybrid drives and the operation of hybrid vehicles are characteristic of contemporary automotive technology. Together with the electronic driver assistant systems, hybrid technology is of the greatest importance and both cannot be ignored by today's car drivers. This technical reference book provides the reader with a firsthand comprehensive description of significant components of automotive technology. All texts are complemented by numerous detailed illustrations.

Reliability in Automotive and Mechanical Engineering Bernd Bertsche 2008-04-30 Defects generate a great economic problem for suppliers who are faced with increased duties. Customers expect increased efficiency and dependability of technical product of - also growing - complexity. The authors give an introduction to a theory of dependability for engineers. The book may serve as a reference book as well, enhancing the knowledge of the specialists and giving a lot of theoretical background and information, especially on the dependability analysis of whole systems.

A Text Book of Automobile Engineering R. K. Rajput 2008

Automotive Vehicle Safety George A. Peters 2002-08-29 *Automotive Vehicle Safety* is a unique academic text, practical design guide and valuable reference book. It provides information that is essential for specialists to make better-informed decisions. The book identifies and discusses key generic safety principles and their applications and includes decision-making criteria, examples and remedies. It

Auto Repair For Dummies Deanna Sclar 2019-01-07 *Auto Repair For Dummies, 2nd Edition* (9781119543619) was previously published as *Auto Repair For Dummies, 2nd Edition* (9780764599026). While this version features a new Dummies cover and design, the content is the same as the prior release and should not be considered a new or updated product. The top-selling auto repair guide--400,000 copies sold--now extensively reorganized and updated Forty-eight percent of U.S. households perform at least some automobile maintenance on their own, with women now accounting for one third of this \$34 billion automotive do-it-yourself market. For new or would-be do-it-yourself mechanics, this illustrated how-to guide has long been a must and now it's even better. A complete reorganization now puts relevant repair and maintenance information directly after each automotive system overview, making it much easier to find hands-on fix-it instructions. Author Deanna Sclar has updated systems and repair information throughout, eliminating discussions of carburetors and adding coverage of hybrid and alternative fuel vehicles. She's also revised schedules for tune-ups and oil changes, included driving tips that can save on maintenance and repair costs, and added new advice on troubleshooting problems and determining when to call in a professional mechanic. For anyone who wants to save money on car repairs and maintenance, this book is the place to start. Deanna Sclar (Long Beach, CA), an acclaimed auto repair expert and consumer advocate, has contributed to the Los Angeles Times and has been interviewed on the Today show, NBC Nightly News, and other television programs.

Automobile Engineering Diploma & Engineering MCQ Manoj Dole 2021-02-01 *Automobile Engineering* is a simple e-Book for Automobile Diploma & Engineering Course, Revised Syllabus in 2018, It contains objective questions with underlined & bold correct answers MCQ covering all topics including all about the latest & Important about Automobile Mechanics, Applied Science Lab, Automobile Workshop Practice, Auto

Electrical and Electronics, Automobile Workshop Tech, Auto Repair and Maintenance, Automotive Engine Auxiliary Systems, Automobile Chassis and Transmission, Automotive Engines, Automobile Machine Shop, Automotive Estimation and Costing, Automotive Pollution and Control, Engine and Vehicle Testing Lab, Basic Computer Skills lab English Communication, Basic Electrical and, Electronics Engineering, Hydraulics, Pneumatics and Power Plant, C Programming, CAD Practice, Machine Design and Theory of MCs, Computer-Aided Engineering, Graphics, Mechanical Testing Lab, Modern Vehicle Technology, Thermal engineering I, Motor Vehicle Management, Vehicle Maintenance, Organizational Management, Vehicle Maintenance Lab, Project, Industrial Visit, and Seminar, Foundry, Welding and Sheet Metal Practice, Special Vehicle and Equipment, Strength of Materials and lots more.

Road Vehicle Dynamics Georg Rill 2011-09-21 In striving for optimal comfort and safety conditions in road vehicles, today's electronically controlled components provide a range of new options. These are developed and tested using computer simulations in software in the loop or hardware in the loop environments-an advancement that requires the modern automotive engineer to be able to build ba

AUTOMOBILE ENGINEERING PRABHU TL Automobile or Automotive Engineering has gained recognition and importance ever since motor vehicles capable for transporting passengers has been in vogue. Now due to the rapid growth of auto component manufacturers and automobile industries, there is a great demand for Automobile Engineers. Automobile Engineering alias Automotive Engineering or Vehicle Engineering is one of the most challenging careers in the field of engineering with a wide scope. This branch deals with the designing, developing, manufacturing, testing and repairing and servicing automobiles such as cars, trucks, motorcycles, scooters etc & the related sub Engineering systems. For the perfect blend of manufacturing and designing automobiles, Automobile Engineering uses the features of different elements of Engineering such as mechanical, electrical, electronic, software and safety engineering. To become a proficient automobile engineer, specialized training is essential and it is a profession, which requires a lot of hard work, dedication, determination and commitment. The major task of an Automobile Engineer is the designing, developing, manufacturing and testing of vehicles from the concept stage to the production stage The automotive industry is one of the largest and most important industries in the world. Cars, buses, and other engine-based vehicles abound in every country on the planet, and it is continually evolving, with electric cars, hybrids, self-driving vehicles, and so on. Technologies that were once thought to be decades away are now on our roads right now. Engineers, technicians, and managers are constantly needed in the industry, and, often, they come from other areas of engineering, such as electrical engineering, process engineering, or chemical engineering. Introductory books like this one are very useful for engineers who are new to the industry and need a tutorial. Also valuable as a textbook for students, this introductory volume not only covers the basics of automotive engineering, but also the latest trends, such as self-driving vehicles, hybrids, and electric cars. Not only useful as an introduction to the science or a textbook, it can also serve as a valuable reference for technicians and engineers alike. The volume also goes into other subjects, such as maintenance and performance. Data has always been used in every company irrespective of its domain to improve the operational efficiency and performance of engines. This work deals with details of various automotive systems with focus on designing various components of these system to suit the working conditions on roads. Whether a textbook for the student, an introduction to the industry for the newly hired engineer, or a reference for the technician or veteran engineer, this volume is the perfect introduction to the science of automotive engineering.

Occupational Outlook Handbook United States. Bureau of Labor Statistics 1976

Automobile Engineering Sudhir Kumar Saxena 2009

Automotive Chassis Engineering David C Barton 2018-03-15 Written for students and practicing engineers working in automotive engineering, this book provides a fundamental yet comprehensive understanding of chassis systems and requires little prior knowledge on the part of the reader. It presents the material in a practical and realistic manner, using reverse engineering as a basis for examples to reinforce understanding of the topics. The specifications and characteristics of vehicles currently on the market are used to exemplify the theory's application, and care is taken to connect the various topics covered, so as to clearly demonstrate their interrelationships. The book opens with a chapter on basic vehicle mechanics, which include the forces acting on a vehicle in motion, assuming a rigid body. It then proceeds to a chapter on steering systems, which provides readers with a firm understanding of the principles and forces involved under static and dynamic loading. The next chapter focuses on vehicle dynamics by considering suspension systems—tyres, linkages, springs, dampers etc. The chapter on chassis structures and materials includes analysis tools (typically, finite element analysis) and design features that are used to reduce mass and increase occupant safety in modern vehicles. The final chapter on Noise, Vibration and Harshness (NVH) includes a basic overview of acoustic and vibration theory and makes use of extensive research investigations and practical experience as a means of addressing NVH issues. In all subject areas the authors take into account the latest trends, anticipating the move towards electric vehicles, on-board diagnostic monitoring, active systems and performance optimisation. The book features a number of worked examples and case studies based on recent research projects. All students, including those on Master's level degree courses in Automotive Engineering, and professionals in industry who want to gain a better understanding of vehicle chassis engineering, will benefit from this book.

Automobile Engineering, Vol.1, (Chassis And Body) { Excluding Engine } Dr. Kirpal Singh 2007-01-01 Introduction * The Chassis Construction * Clutches * Transmission 1 * Transmission 2 * The Drive Line * Suspension System * Front Axle and Steering * Wheels and Tyres * Brakes-I * Brakes - II * Lighting System * Accessories * Body and Safety Considerations * Vehicle Chassis Specifications * Automobile Shop Equipment * Automotive Materials* Miscellaneous Topics * Appendix * Index.

A Practical Approach to Motor Vehicle Engineering and Maintenance Allan Bonnick 2011-05-26 Fully updated and in line with latest specifications, this textbook integrates vehicle maintenance procedures, making it the indispensable first classroom and workshop text for all students of motor vehicle engineering, apprentices and keen amateurs. Its clear, logical approach, excellent illustrations and step-by-step development of theory and practice make this an accessible text for students of all abilities. With this book, students have information that they can trust because it is written by an experienced practitioner and lecturer in this area. This book will provide not only the information required to understand automotive engines but also background information that allows readers to put this information into context. The book contains flowcharts, diagnostic case studies, detailed diagrams of how systems operate and overview descriptions of how systems work. All this on top of step-by-step instructions and quick reference tables. Readers won't get bored when working through this book with questions and answers that aid learning and revision included.

Automotive Control Systems A. Galip Ulsoy 2012-04-30 Course book introducing advanced control systems for vehicles, including advanced automotive concepts and the next generation of vehicles for ITS.

Automotive Engineering e-Mega Reference David Crolla 2009-06-16 This one-stop Mega Reference eBook brings together the essential professional reference content from leading international contributors in the automotive field. An expansion the Automotive Engineering print edition, this fully searchable electronic reference book of 2500 pages delivers content to meet all the main information needs of engineers working in vehicle design and development. Material ranges from basic to advanced topics from engines and transmissions to vehicle dynamics and modelling. * A fully searchable Mega Reference Ebook, providing all the essential material needed by Automotive Engineers on a day-to-day basis. * Fundamentals, key techniques, engineering best practice and rules-of-thumb together in one quick-reference. * Over 2,500 pages of reference material, including over 1,500 pages not included in the print edition

Basic Automobile Engineering Nakra Cp 2009 The book covers the fundamental and theoretical aspects of repair and maintenance and adjustment of automobile equipment and accessories of cars, trucks two-wheelers and three-wheelers. It covers the complete syllabus of diploma certificate in automobile engineering as well as industrial and vocational courses.

Dictionary of Automobile Engineering Rupert Livesey 1996 A comprehensive, illustrated dictionary covering all aspects of automobile engineering (cars, lorries, motorcycles, maintenance, panel-beating, welding, sales, design, development). Differences between British and American usage are highlighted. Throughout the text quotations are given from English magazines and newspapers to show how the terms are used in "real life". The main words and derived terms are clearly identified and entries are divided by numbers and letters. Different typefaces are used to highlight elements."

General Questions of Automobile Engineering Shivendra Nandan Automobile Engineering is the branch of engineering which deals with

designing, manufacturing, mechanical mechanisms as well operations of automobiles. It is also an introduction to vehicle engineering which includes cars, motorcycles, trucks and buses etc.

Fundamentals of Vehicle Dynamics Thomas D. Gillespie 1992 This book attempts to find a middle ground by balancing engineering principles and equations of use to every automotive engineer with practical explanations of the mechanics involved, so that those without a formal engineering degree can still comprehend and use most of the principles discussed. Either as an introductory text or a practical professional overview, this book is an ideal reference.

Basic Motorsport Engineering Andrew Livesey 2012-05-23 Motorsport is not just about the spectacle of some of the world's most popular and famous sporting events - it also plays a crucial role in developing new techniques and technologies. Each unit in the IMI and EAL level 2 courses are covered in full, and the chapters can be easily matched to the BTEC First course structure. The book covers introductory topics in motorsport from vehicle science and maths through the basics of vehicle maintenance to pre and post race inspections. Written by an experienced teacher and author with decades of involvement with the industry, packed with detailed colour illustrations and learning tips, Basic Motorsport Engineering is the perfect textbook for you to make the first move into this most dynamic of industries.

The Automotive Chassis Jörnßen Reimpell 2001 This comprehensive overview of chassis technology presents an up-to-date picture for vehicle construction and design engineers in education and industry. The book acts as an introduction to the engineering design of the automobile's fundamental mechanical systems. Clear text and first class diagrams are used to relate basic engineering principles to the particular requirements of the chassis. In addition, the 2nd edition of 'The Automotive Chassis' has a new author team and has been completely updated to include new technology in total vehicle and suspension design, including platform concept and four-wheel drive technology.

Automotive Power Systems Dorin O. Neacsu 2020-09-21 Vehicles are intrinsically linked to our lives. This book covers all technical details of the vehicle electrification process, with focus on power electronics. The main challenge in vehicle electrification consists of replacing the engine-based mechanical, pneumatic, or hydraulic ancillary energy sources with electrical energy processed through an electromagnetic device. The book illustrates this evolutionary process with numerous series-production examples for either of body or chassis systems, from old milestones to futuristic luxury vehicles. Electrification of ancillaries and electric propulsion eventually meet into an all-electric vehicle and both processes rely heavily on power electronics. Power electronics deals with electronic processing of electrical energy. This makes it a support technology for the automotive industry. All the automotive visions for the next decade (2020-2030) are built on top of power electronics and the automotive power electronics industry is expected at 15% compound annual growth rate, the highest among all automotive technologies. Hence, automotive power electronics industry is very appealing for recent and future graduates. The book structure follows the architecture of the electrical power system for a conventional engine-based vehicle, with a last chapter dedicated to an introduction onto electric propulsion. The first part of the book describes automotive technologies for generation and distribution of electrical power, as well as its usage within body systems, chassis systems, or lighting. The second part explores deeper into the specifics of each component of the vehicle electric power system. Since cars have been on the streets for over 100 years, each chapter starts with a list of historical achievements. Recognizing the engineering effort span over more than a century ennobles the R&D efforts of the new millennium. Focus on history of electricity in vehicle applications is another attractive treat of the book. The book fills a gap between books targeting practical education and works sharing advanced academic vision, offering students and academics a quick tour of the basic tools and long-standing infrastructure, and offering practicing engineers an introduction on newly introduced power electronics-based technologies. It is therefore recommended as a must-have book for students and early graduates in automotive power electronics activities.

Automobile Engineering Practical (2 Nd Edition) N. Malhotra 2010-01-01

Practice Sets Automobile Engineering [useful for Railway & Other engineering (Diploma) exams.]

Automotive Aerodynamics Joseph Katz 2016-07-12 The automobile is an icon of modern technology because it includes most aspects of modern engineering, and it offers an exciting approach to engineering education. Of course there are many existing books on introductory fluid/aero dynamics but the majority of these are too long, focussed on aerospace and don't adequately cover the basics. Therefore, there is room and a need for a concise, introductory textbook in this area. Automotive Aerodynamics fulfils this need and is an introductory textbook intended as a first course in the complex field of aero/fluid mechanics for engineering students. It introduces basic concepts and fluid properties, and covers fluid dynamic equations. Examples of automotive aerodynamics are included and the principles of computational fluid dynamics are introduced. This text also includes topics such as aeroacoustics and heat transfer which are important to engineering students and are closely related to the main topic of aero/fluid mechanics. This textbook contains complex mathematics, which not only serve as the foundation for future studies but also provide a road map for the present text. As the chapters evolve, focus is placed on more applicable examples, which can be solved in class using elementary algebra. The approach taken is designed to make the mathematics more approachable and easier to understand. Key features: Concise textbook which provides an introduction to fluid mechanics and aerodynamics, with automotive applications Written by a leading author in the field who has experience working with motor sports teams in industry Explains basic concepts and equations before progressing to cover more advanced topics Covers internal and external flows for automotive applications Covers emerging areas of aeroacoustics and heat transfer Automotive Aerodynamics is a must-have textbook for undergraduate and graduate students in automotive and mechanical engineering, and is also a concise reference for engineers in industry.