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[Automotive Science and Mathematics](#) Aug 17 2021 An introductory text for BTEC first, BTEC national and IMI Certificate and Diploma syllabus requirements for mathematics and science. This textbook presents the necessary principles and applications with examples and exercises relating directly to motor vehicle technology and repair, making it easy for automotive students and apprentices to relate theory back to their working practice. It also offers a good introductory text for automotive students on Higher National and Foundation degree courses in automotive engineering.

Das ultimative Harley-Davidson-Buch Dec 09 2020

**Hybrid Vehicle Propulsion** Oct 26 2019 The volume will be of great interest to engineering and technical staff working in the road and rail vehicle industries, final year undergraduates and postgraduates studying mechanical and automotive engineering, transport planning personnel, and technically literate readers who wish to find out more about this subject.

**Automobilergonomie** Jan 28 2020 Ergonomie lehrt, wie Technik so zu gestalten ist, dass sie optimal an die Bedürfnisse, Wünsche und Eigenschaften des Nutzers angepasst ist. Es hat sich in diesem Zusammenhang der Begriff vom Mensch-Maschine-System etabliert. Sachsystematisch und mit detailliertem Blick auf die komplizierten technischen und wahrnehmungspsychologischen und methodischen Zusammenhänge werden in diesem Buch die Grundlagen mit zahlreichen Beispielen erklärt. Dabei zeigt sich die Anwendung der Fahrzeuergonomie in den Beispielen wie Package, Gestaltung von Anzeigen und Bedienelementen, von Umweltergonomie wie Beleuchtung, Schall, Schwingungen, Klima und Geruch. Auch die Gestaltung von Fahrerassistenzsystemen aus ergonomischer Sicht ist ein zentrales Thema. Abgerundet wird das Buch durch Methoden der ergonomischen Fahrzeugentwicklung, die Nutzung von Mock-Ups, Fahr simulatoren und von Versuchen in Realfahrzeugen und Prototypen. Erstmals wird den Verantwortlichen in der Automobilindustrie und im Bereich

der einschlägigen Forschung ein fachsystematisches Werk an die Hand gegeben, das die ergonomischen Erkenntnisse bei der Gestaltung heutiger Automobile bereitstellt. Damit erhalten Planer und Konstrukteure heutiger Automobile konkrete Angaben für die ergonomische Produktentwicklung und können so entscheidende Anforderungen und die spätere Kundenakzeptanz im Blick behalten.

*The Automotive Chassis* Jan 22 2022 This textbook draws on the authors' experience gained by teaching courses for engineering students on e.g. vehicle mechanics, vehicle system design, and chassis design; and on their practical experience as engineering designers for vehicle and chassis components at a major automotive company. The book is primarily intended for students of automotive engineering, but also for all technicians and designers working in this field. Other enthusiastic engineers will also find it to be a useful technical guide. The present volume (*The Automotive Chassis – Volume 2: System Design*) focuses on the automotive chassis as a system, providing readers with the knowledge needed to integrate the individual components described in Volume 1 in a complex system that satisfies customers' expectations. Special emphasis is given to factors influencing system performance, including: - the influence of the powertrain on vehicle performance. Conventional, hybrid and electric powertrains are considered; - factors influencing vehicles' handling performance; - factors influencing vehicles' comfort performance; and - factors influencing vehicles' stability and strategies for accident avoidance (active safety). In addition, this second volume thoroughly covers topics that are usually neglected in other books about the automotive chassis, such as: - the basics of vehicle aerodynamics; - internal combustion engines, electric motors and batteries; and - mathematical modeling tools. This thoroughly revised second edition has been updated to reflect the latest advances in electric and hybrid vehicles, electronic control systems and autonomous driving.

Supercharging, Turbocharging and Nitrous Oxide Performance Feb 29 2020 This is a complete guide to selecting, installing, and tuning forced-induction fuel/air systems. Everything involved with these systems will be covered, including assessing power goals, component selection, engine preparation, tools, installation procedures, tuning, vehicle modifications, driveability, and sources.

**Fast Car Physics** Mar 31 2020 Revving engines, smoking tires, and high speeds. Car racing enthusiasts and race drivers alike know the thrill of competition, the push to perform better, and the agony - and dangers - of bad decisions. This title explains just what's going on during any race, why, and how a driver can improve control and ultimately win.

**Automobile Engineering** Feb 08 2021

A Text Book of Automobile Engineering May 26 2022

Technology Choices Nov 27 2019 An analysis of the occupational factors that shape the technology choices made by people who perform the same type of work. Why do people who perform largely the same type of work make different technology choices in the workplace? An automotive design engineer working in India, for example, finds advanced information and communication technologies essential, allowing him to work with far-flung colleagues; a structural engineer in California relies more on paper-based technologies for her everyday work; and a software engineer in Silicon Valley operates on multiple digital levels simultaneously all day, continuing after hours on a company-supplied home computer and network connection. In *Technology Choices*, Diane Bailey and Paul Leonardi argue that occupational factors—rather than personal preference or purely technological concerns—strongly shape workers' technology choices. Drawing on extensive field work—a decade's worth of observations and interviews in seven engineering firms in eight countries—Bailey and Leonardi challenge the traditional views of technology choices: technological determinism and social constructivism. Their innovative occupational perspective allows them to explore how external forces shape ideas, beliefs, and norms in ways that steer individuals to particular technology choices—albeit in somewhat predictable and generalizable ways. They examine three relationships at the heart of technology choices: human to technology, technology to technology, and human to human. An occupational perspective, they argue, helps us not only to understand past technology choices, but also to predict future ones.

*The Global Automotive Industry* Aug 24 2019 The automotive industry is still one of the world's largest manufacturing sectors, but it suffers from being very

technology-focused as well as being relatively short-term focused. There is little emphasis within the industry and its consultancy and analyst supply network on the broader social and economic impacts of automobility and of the sector that provides it. The Global Automotive Industry addresses this need and is a first port of call for any academic, official or consultant wanting an overview of the state of the industry. An international team of specialist researchers, both from academia and business, review and analyse the key issues that make vehicle manufacturing still the world's premier manufacturing sector, closely tied in with the fortunes of both established and newly emerging economies. In doing so, it covers issues related to manufacturing, both established practices as well as new developments; issues relating to distribution, marketing and retail, vehicle technologies and regulatory trends; and, crucially, labour practices and the people who build cars. In all this it explains both how the current situation arose and also likely future trajectories both in terms of social and regulatory trends, as the technological, marketing and labour practice responses to those, leading in many cases to the development of new business models. Key features

- Provides a global overview of the automotive industry, covering its current state and considering future challenges
- Contains contributions from international specialists in the automotive sector
- Presents current research and sets this in an historical and broader industry context
- Covers threats to the industry, including globalization, economic and environmental sustainability

The Global Automotive Industry is a must-have reference for researchers and practitioners in the automotive industry and is an excellent source of information for business schools, governments, and graduate and undergraduate students in automotive engineering.

*The Automotive Chassis* Apr 24 2022 This textbook draws on the authors' experience gained by teaching courses for engineering students on e.g. vehicle mechanics, vehicle system design, and chassis design; and on their practical experience as engineering designers for vehicle and chassis components at a major automotive company. The book is primarily intended for students of automotive engineering, but also for all technicians and designers working in this field. Other enthusiastic engineers will also find it to be a useful technical guide. The present volume (*The Automotive Chassis – Volume 1: Component Design*) focuses on automotive chassis components, such as:

- the structure, which is usually a ladder framework and supports all the remaining components of the vehicle;
- the suspension for the mechanical linkage of the wheels;
- the wheels and tires;
- the steering system;
- the brake system; and
- the transmission system, used to apply engine torque to the driving wheels.

This thoroughly revised and updated second edition presents recent developments, particularly in brake, steering, suspension and transmission subsystems. Special emphasis is given to modern control systems and control strategies.

**Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018)** Jun 14 2021 The book includes the best articles presented by researchers, academicians and industrial experts at the International Conference on "Innovative Design and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018)". The book discusses new concept in designs, and analysis and manufacturing technologies for improved performance through specific and/or multi-functional design aspects to optimise the system size, weight-to-strength ratio, fuel efficiency and operational capability. Other aspects of the conference address the ways and means of numerical analysis, simulation and additive manufacturing to accelerate the product development cycles. Describing innovative methods, the book provides valuable reference material for educational and research organizations, as well as industry, wanting to undertake challenging projects of design engineering and product development.

Automotive Engineering Jun 26 2022 Automotive Engineering: Mechanical ebook Collection contains 5 of our best-selling titles, providing the ultimate reference for every automotive engineer's library. Get access to over 4000 pages of reference material, at a fraction of the price of the hard-copy books. This CD contains the complete ebooks of the following 5 Butterworth-Heinemann titles: Heisler, *Advanced Vehicle Technology* 2nd Edition, 9780750651318 Heisler, *Vehicle and Engine Technology* 2nd Edition, 9780340691861 Martyr, *Engine Testing* 3rd Edition, 9780750684392 Pacejka, *Tyre & Vehicle Dynamics* 2nd Edition, 9780750669184 Garrett, *Motor Vehicle* 13th Edition, 9780750644495 \*Five fully searchable titles on one CD providing instant access to the ULTIMATE library of engineering materials for automotive professionals \*4000 pages of practical and theoretical automotive information in one portable package. \*Incredible value at a fraction of the cost of the print books

Automobile Engineering Sep 29 2022

**Automotive Software Engineering** Aug 29 2022 Nahezu alle Funktionen des Fahrzeugs werden inzwischen elektronisch gesteuert, geregelt oder überwacht. Die Realisierung von Funktionen durch Software bietet einzigartige Freiheitsgrade beim Entwurf. In der Fahrzeugentwicklung müssen jedoch Randbedingungen wie hohe Zuverlässigkeits- und Sicherheitsanforderungen, vergleichsweise lange Produktlebenszyklen, begrenzte Kosten, verkürzte Entwicklungszeiten und zunehmende Variantenvielfalt berücksichtigt werden. Dieses Buch enthält Grundlagen und praktische Beispiele zu Prozessen, Methoden und Werkzeugen, die zur sicheren Beherrschbarkeit von elektronischen Systemen und Software im Fahrzeug beitragen. Dabei stehen die elektronischen Systeme des Antriebsstrangs, des Fahrwerks und der Karosserie im Vordergrund. Die überarbeitete 3. Auflage enthält verbesserte Bilddarstellungen sowie ein deutsch-englisches Sachwortverzeichnis.

CGPSC-Chhattisgarh Assistant Asst Regional Transport Officer-ARTO Exam: Automobile Engineering Ebook-PDF Sep 17 2021 SGN.The Ebook CGPSC-Chhattisgarh Assistant Asst Regional Transport Officer-ARTO Exam: Automobile Engineering Covers Questions From Similar Exams With Answers.

**Automotive Engineering: An Introduction** Jul 28 2022 The study and practice of designing, constructing, manufacturing and operating automobiles is known as automotive engineering. It is a sub-field of vehicle engineering. It is based on the elements of software engineering, electrical engineering, safety engineering and mechanical engineering, etc. The subject has three main parts namely designing the different aspects of a vehicle, testing these parts, and final manufacturing. This book is a compilation of chapters that discuss the most vital concepts in the field of automotive engineering. Such selected concepts that redefine the area have been presented in it. For all those who are interested in automotive engineering, this textbook can prove to be an essential guide.

*Automotive Control Systems* Mar 12 2021 This engineering textbook is designed to introduce advanced control systems for vehicles, including advanced automotive concepts and the next generation of vehicles for ITS. For each automotive control problem considered, the authors emphasize the physics and underlying principles behind the control system concept and design. This is an exciting and rapidly developing field for which many articles and reports exist but no modern unifying text. An extensive list of references is provided at the end of each chapter for all the topics covered. It is currently the only textbook, including problems and examples, that that covers and integrates the topics of automotive powertrain control, vehicle control, and intelligent transportation systems. The emphasis is on fundamental concepts and methods for automotive control systems, rather than the rapidly changing specific technologies. Many of the text examples, as well as the end-of-chapter problems, require the use of MATLAB and/or SIMULINK.

**Autonomous Driving Changes the Future** Apr 12 2021 This book systematically discusses the development of autonomous driving, describing the related history, technological advances, infrastructure, social impacts, international competition, China's opportunities and challenges, and possible future scenarios. This popular science book uses straightforward language and includes quotes from ancient Chinese poems to enhance the reading experience. The discussions are supplemented by theoretical elaborations, presented in tables and figures. The book is intended for auto fans, upper undergraduate and graduate students in the field of automotive engineering.

**Automotive Engineering** Sep 05 2020

**Automotive Technology** Nov 07 2020 Automotive Technology: Principles, Diagnosis, and Service, Fourth Edition, meets the needs for a comprehensive book that covers all eight areas of automotive service, plus the soft skills and tool knowledge that must also be taught. Because many automotive systems are intertwined, presenting all systems together in one text makes it easier for the student to see how they are all connected. Topics are divided into 133 short chapters, which makes it easier for instructors and students to learn and master the content.

*Fundamentals of Vehicle Dynamics* Dec 29 2019 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.

Automotive Engineering Jun 02 2020 The current automotive industry faces numerous challenges, including increased global competition, more stringent environmental and safety requirements, the need for higher performance vehicles, and reducing costs. The materials used in automotive engineering play key roles in overcoming these issues. Automotive Engineering: Lightweight, Functional, and Novel Materials focuses on both existing materials and future developments in automotive science and technology. Divided into four sections, the book first describes the development of future vehicles, aluminum alloys for manufacturing lighter body panels, and various polymer composites for stronger module carriers. It then reviews state-of-the-art functional materials and smart technologies and projects in which application areas they will most impact future automotive designs and manufacturing. The next section considers the difficulties that must be overcome for light alloys to displace ferrous-based materials and the increasing competition from lightweight polymeric-based composites. The final section explores newer processing and manufacturing technologies, including welding and joining, titanium alloys, and durable, high-performance composites. With contributions from internationally recognized experts, this volume provides a comprehensive overview of cutting-edge automotive materials and technologies. It will help you understand the key materials and engineering concerns currently confronting this industry.

Automotive Product Development Oct 19 2021 This book is about how to develop future automotive products by applying the latest methodologies based on a systems engineering approach and by taking into account many issues facing the auto industry such as meeting government safety, emissions and fuel economy regulations, incorporating advances in new technology applications in structural materials, power trains, vehicle lighting systems, displays and telematics, and satisfying the very demanding customer. It is financially disastrous for any automotive company to create a vehicle that very few people want. To design an automotive product that will be successful in the marketplace requires carefully orchestrated teamwork of experts from many disciplines, substantial amount of resources, and application of proven techniques at the right time during the product development process. Automotive Product Development: A Systems Engineering Implementation is intended for company management personnel and graduate students in engineering, business management and other disciplines associated with the development of automotive and other complex products.

**Automotive Software Engineering** Sep 25 2019 Dieses Fachbuch enthält die Grundlagen sowie zahlreiche Anregungen und praktische Beispiele zu Prozessen, Methoden und Werkzeugen, die zur sicheren Beherrschbarkeit von elektronischen Systemen und Software im Fahrzeug beitragen. Dabei werden der AUTOSAR-Standard und die Norm ISO 26 262 durchgehend behandelt. Die aktuelle Auflage berücksichtigt Elektro- und Hybridantriebskonzepte sowie Fahrerassistenzsysteme und enthält die Grundlagen zu Produktlinien- und Variantenmanagement. Seit Anfang der 1970er Jahre ist die Entwicklung von Kraftfahrzeugen geprägt von einem rasanten Anstieg des Einsatzes von Elektronik und Software. Dieser Trend hält bis heute an und wird getrieben von steigenden Kunden- und Umweltauflagen. Nahezu alle Funktionen des Fahrzeugs werden inzwischen elektronisch gesteuert, geregelt oder überwacht. Die Realisierung von Funktionen durch Software bietet einzigartige Freiheitsgrade beim Entwurf. In der Fahrzeugentwicklung müssen jedoch Randbedingungen wie hohe Zuverlässigkeits- und Sicherheitsanforderungen, lange Produktlebenszyklen, begrenzte Kostenrahmen, kurze Entwicklungszeit und zunehmende Variantenvielfalt berücksichtigt werden. In diesem Spannungsfeld steht Automotive Software Engineering.

**Automotive Engineering Fundamentals** Dec 21 2021 In the introduction of Automotive Engineering Fundamentals, Richard Stone and Jeffrey K. Ball provide a fascinating and often amusing history of the passenger vehicle, showcasing the various highs and lows of this now-indispensable component of civilized societies. The authors then provide an overview of the publication, which is designed to give the student of automotive engineering a basic understanding of the principles involved with designing a vehicle. From engines and transmissions to vehicle aerodynamics and computer modeling, the intelligent, interesting presentation of core concepts in Automotive Engineering Fundamentals is sure to make this an indispensable resource for engineering students and professionals alike.

**Automobile Electrical and Electronic Systems** May 02 2020 This textbook will help you learn all the skills you need to pass all Vehicle Electrical and Electronic Systems courses and qualifications. As electrical and electronic systems become increasingly more complex and fundamental to the workings of

modern vehicles, understanding these systems is essential for automotive technicians. For students new to the subject, this book will help to develop this knowledge, but will also assist experienced technicians in keeping up with recent technological advances. This new edition includes information on developments in pass-through technology, multiplexing, and engine control systems. In full colour and covering the latest course specifications, this is the guide that no student enrolled on an automotive maintenance and repair course should be without. Designed to make learning easier, this book contains: Photographs, flow charts, quick reference tables, overview descriptions and step-by-step instructions Case studies to help you put the principles covered into real-life context Useful margin features throughout, including definitions, key facts and 'safety first' considerations Free access to the support website where you will find lots of additional information and useful learning materials: [www.automotive-technology.org](http://www.automotive-technology.org)

Systems Engineering for Automotive Powertrain Development Jan 10 2021 For the last century, the automotive industry has been dominated by internal combustion engines. Their flexibility of application, driving range, performance and sporty characteristics has resulted in several generations of this technology and has formed generations of engineers. But that is not the end of the story. Stricter legislation and increased environmental awareness have resulted in the development of new powertrain technologies in addition and parallel to the highly optimized internal combustion engine. Hybrid powertrains systems, pure battery electric systems and fuel cell systems, in conjunction with a diverse range of applications, have increased the spectrum of powertrain technologies. Furthermore, automated driving together with intelligent and highly connected systems are changing the way to get from A to B. Not only is the interaction of all these new technologies challenging, but also several different disciplines have to collaborate intensively in order for new powertrain systems to be successfully developed. These new technologies and the resulting challenges lead to an increase in system complexity. Approaches such as systems engineering are necessary to manage this complexity. To show how systems engineering manages the increasing complexity of modern powertrain systems, by providing processes, methods, organizational aspects and tools, this book has been structured into five parts. Starting with Challenges for Powertrain Development, which describes automotive-related challenges at different levels of the system hierarchy and from different point of views. The book then continues with the core part, Systems Engineering, in which all the basics of systems engineering, model-based systems engineering, and their related processes, methods, tools, and organizational matters are described. A special focus is placed on important standards and the human factor. The third part, Automotive Powertrain Systems Engineering Approach, puts the fundamentals of systems engineering into practice by adding the automotive context. This part focuses on system development and also considers the interactions to hardware and software development. Several approaches and methods are presented based on systems engineering philosophy. Part four, Powertrain Development Case Studies, adds the practical point of view by providing a range of case studies on powertrain system level and on powertrain element level and discusses the development of hybrid powertrain, internal combustion engines, e-drives, transmissions, batteries and fuel cell systems. Two case studies on a vehicle level are also presented. The final part, Outlook, considers the development of systems engineering itself with particular focus on information communication technologies. Even though this book covers systems engineering from an automotive perspective, many of the challenges, fundamental principles, conclusions and outlooks can be applied to other domains too. Therefore, this book is not only relevant for automotive engineers and students, but also for specialists in scientific and industrial positions in other domains and anyone who has to cope with the challenge of successfully developing complex systems with a large number of collaborating disciplines.

*Automotive Engineering e-Mega Reference* Oct 31 2022 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

**A Textbook of Automobile Engineering** May 14 2021

**Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering** Nov 19 2021 The book presents the best articles presented by researchers, academicians and industrial experts in the International Conference on “Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering”. The book discusses new concept designs, analysis and manufacturing technologies, where more swing is for improved performance through specific and/or multifunctional linguistic design aspects to downsize the system, improve weight to strength ratio, fuel efficiency, better operational capability at room and elevated temperatures, reduced wear and tear, NVH aspects while balancing the challenges of beyond Euro IV/Barat Stage IV emission norms, Greenhouse effects and recyclable materials. The innovative methods discussed in the book will serve as a reference material for educational and research organizations, as well as industry, to take up challenging projects of mutual interest.

Advances in Automotive Technologies Jul 04 2020 This book contains selected papers from the International Conference on Progress in Automotive Technologies (ICPAT) 2019. The contents focus on several aspects of the automobile industry from design to manufacture, and the challenges involved therein. The book covers latest research trends in the automotive domain including topics such as aerodynamic design, vehicle sensors and electronics, engine combustion modeling, noise and vibration in vehicles, electric and hybrid vehicles, automotive tribology, and battery and fuel cell technologies. The book highlights the use of emerging technologies to tackle the growing environmental challenges. This book will be of interest to students, researchers as well as professionals working in automotive engineering and allied fields.

**Reliability in Automotive and Mechanical Engineering** Mar 24 2022 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.

Plastics in Automotive Engineering Jul 24 2019 Today's automotive industry is challenged by ever more stringent demands to reduce fuel consumption and exhaust emissions. Lightweight design and increased use of advanced plastic components will be crucial for the next generation of cars complying with legislation. Engineers and manufacturers who develop and produce polymer-based components for automobiles are under pressure to reduce developing times and to optimize production processes for quality and economic viability. Tools of choice are computer-aided selection of polymers in combination with mathematical simulation for both, material properties and production processes. They provide crucial help in finding innovative and economical solutions when designing polymer applications for modern cars. This unique and timely book provides theoretical as well as practical reviews of novel polymer applications for automotive engineering, covering material selection, simulation, prototyping and manufacturing. Nineteen industrial case studies illustrate current polymer applications for the exterior of passenger cars and commercial vehicles made in Europe. These studies describe component-specific and vehicle-specific solutions, providing expert insights into current developments in the polymer industry as well as novel component production and, most importantly, their innovative implementation into industrial practice.

**Text Book on Motor Car Engineering** Oct 07 2020

**Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering** Aug 05 2020 This book gathers the best articles presented by researchers and industrial experts at the International Conference on “Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2020)”. The papers discuss new design concepts, and analysis and manufacturing technologies, with a focus on achieving improved performance by downsizing; improving the strength-to-weight ratio, fuel efficiency and operational capability at room and elevated temperatures; reducing wear and tear; addressing NVH aspects, while balancing the challenges of Euro VI/Bharat Stage VI emission norms, greenhouse effects and recyclable materials. Presenting innovative methods, this book is a valuable reference resource for professionals at educational and research organizations, as

well as in industry, encouraging them to pursue challenging projects of mutual interest.

**Fundamentals of Automotive and Engine Technology** Jul 16 2021 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.

**Human-Like Decision Making and Control for Autonomous Driving** Jun 22 2019 This book details cutting-edge research into human-like driving technology, utilising game theory to better suit a human and machine hybrid driving environment. Covering feature identification and modelling of human driving behaviours, the book explains how to design an algorithm for decision making and control of autonomous vehicles in complex scenarios. Beginning with a review of current research in the field, the book uses this as a springboard from which to present a new theory of human-like driving framework for autonomous vehicles. Chapters cover system models of decision making and control, driving safety, riding comfort and travel efficiency. Throughout the book, game theory is applied to human-like decision making, enabling the autonomous vehicle and the human driver interaction to be modelled using noncooperative game theory approach. It also uses game theory to model collaborative decision making between connected autonomous vehicles. This framework enables human-like decision making and control of autonomous vehicles, which leads to safer and more efficient driving in complicated traffic scenarios. The book will be of interest to students and professionals alike, in the field of automotive engineering, computer engineering and control engineering.

*A Textbook of Automobile Engineering* Feb 20 2022 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.

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