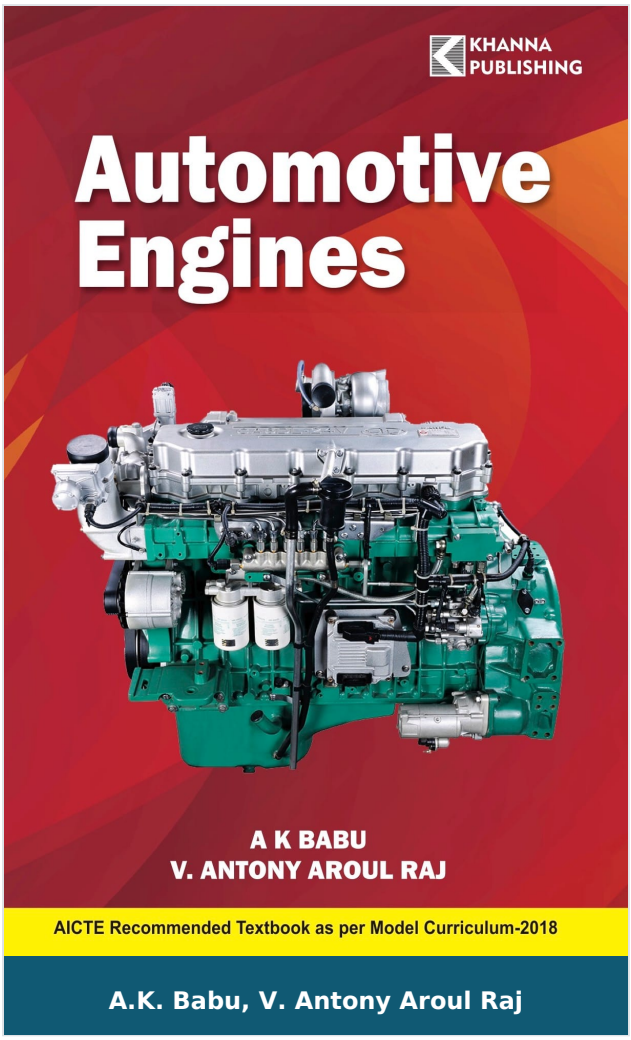


# Automotive Engines

| | |
|---|---|
| **Author :** | A.K. Babu, V. Antony Aroul Raj |
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## Product Description

This book is designed to meet the requirements of the students of Mechanical Engineering and Automobile Engineering. It is based on the latest syllabi prescribed by different Technical Colleges and Universities in India. Each chapter is describes in simple, non-technical language and explains by clear illustrations that how engine parts and systems are constructed, how the part works, and what is required to maximize performance in terms of power, speed, economy and safety.

The important short and long review questions which the  are included at the end of each chapter are taken from previous semesters question papers of various Technical colleges and Universities. This book is intended to be used as a Text and for Reference by colleges and technical universities offering subjects like Automotive Engines and Internal Combustion Engines.

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- Engines
- Fuel Systems
- Combustion in Engines
- Turbocharging and Supercharging
- Engine Testing
- Cooling and Lubrication
- Emission and Control
- Review Question


## Author


**A.K. Babu**

A.K. Babu A.K.Babu is working as Associate Professor in the Department of Automobile Engineering, SRM Easwari Engineering College, Chennai, India. He has over 18 years of experience in teaching, research and industry. A.K.Babu, completed his Master Degree in Automobile Engineering from Madras Institute of Technology (M.I.T.), Anna University (1997). He has served in other countries like Malaysia, Ethiopia and Eritrea for more than 5 years. A.K.Babu has published considerable number of research papers in international journals and conferences. His research paper published in SAE Journal of Fuels and Lubricants awarded one the most outstanding papers in the year 2003.

**V. Antony Aroul Raj**

V. Antony Aroul Raj Dr.V.Antony Aroul Raj is a Professor in the Department of Mechanical Engineering, SRM Easwari Engineering College, Chennai, India. He has over 15 years of research and teaching experience. Dr.V.Antony Aroul Raj obtained B. E. Degree in Mechanical Engineering from the Pondicherry Engineering College (1993) and a Ph.D in

Energy Engineering from the Anna University, Chennai, India (2011). He has received the best project award for his PG project. He has worked in the air-conditioning Industry for 4 years and installed about 60 plants. He has more than 10 research publications in International Journals with high impact factors and in various conferences in India and abroad. He is a Life member of ISHRAE and SAE.

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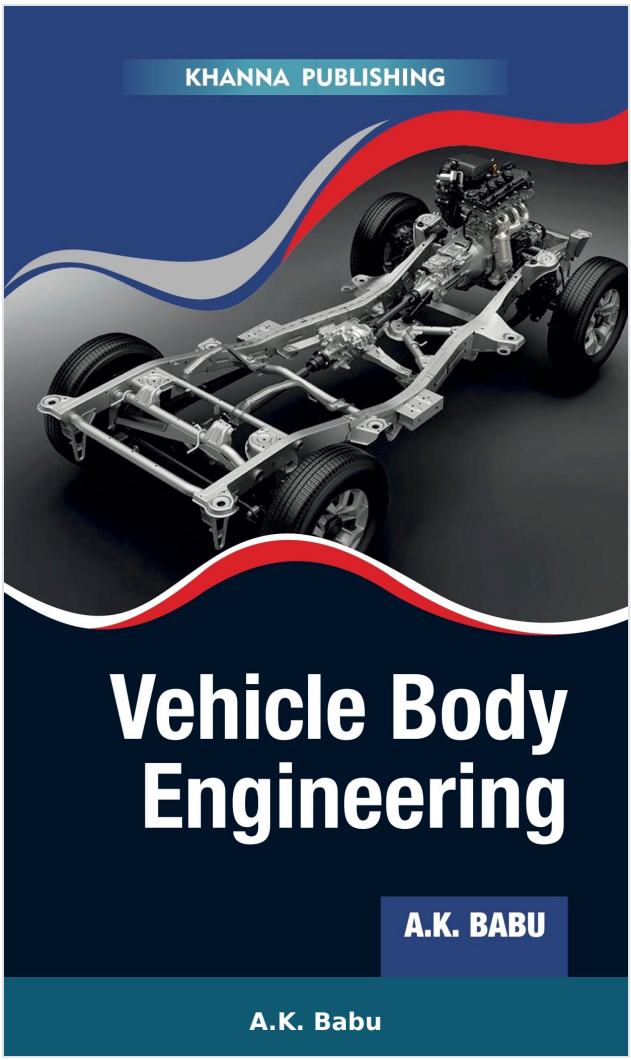


# Vehicle Body Engineering

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|---|---|
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This book is designed for students undertaking a subject 'Vehicle Body Engineering/Auto Body Engineering' in the undergraduate and postgraduate programme of Automobile Engineering  as per the latest revised syllabus of all Indian Universities. The book Provides a clear explanation of vehicle body parts and systems with unique illustrations. Each chapter takes the reader systematically through the details of each type of vehicle body such as car body, bus body, commercial vehicle body, etc. Key topics are emphasized and are reinforced by numerous illustrations. The book should also be a valuable source of information and reference.-

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- Vehicle aerodynamics
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## Author

**A.K. Babu**

A.K. Babu A.K.Babu is working as Associate Professor in the Department of Automobile Engineering, SRM Easwari Engineering College, Chennai, India. He has over 18 years of experience in teaching, research and industry. A.K.Babu, completed his Master Degree in Automobile Engineering from Madras Institute of Technology (M.I.T.), Anna University (1997). He has served in other countries like Malaysia, Ethiopia and Eritrea for more than 5 years. A.K.Babu has published considerable number of research papers in international journals and conferences. His research paper published in SAE Journal of Fuels and Lubricants awarded one the most outstanding papers in the year 2003.

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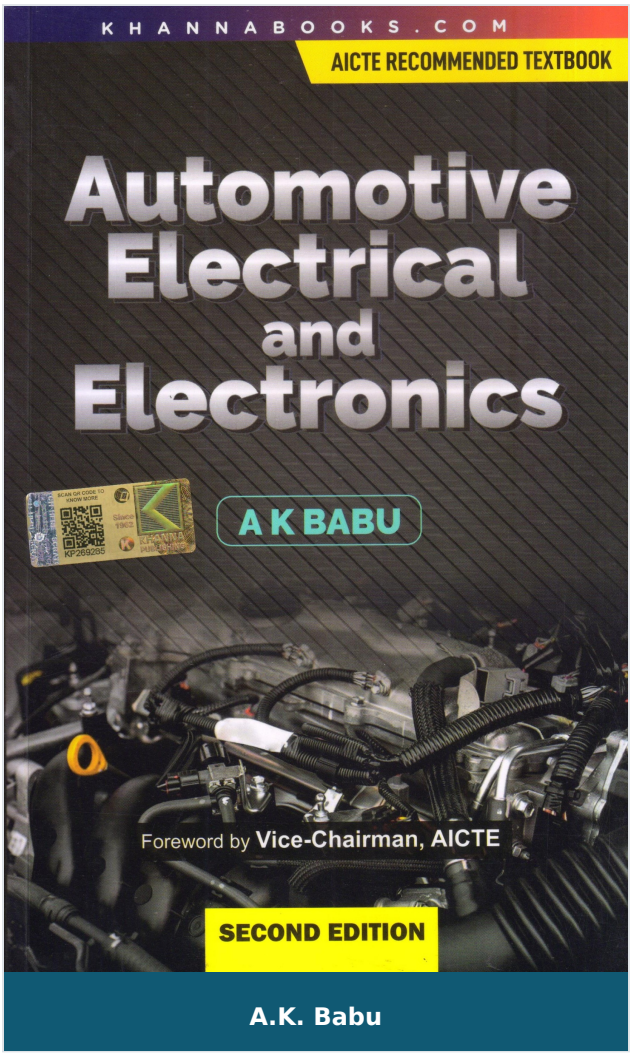


# Automotive Electrical and Electronics

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Automobile engineering is a field that has been witnessing tremendous technological developments in recent years, noteworthy among them being next generation hybrid cars and self-driving cars. This book is designed for students who take up the study of the subject 'Automotive Electrical and Electronics' as part of the curriculum requirements of the Automobile Engineering Degree as per the latest revised syllabus of all Indian Universities. The book offers a clear introduction to the Electrical and Electronics Components and Systems used in modern today's vehicles with the aid of several illustrations to facilitate easy comprehension and full understanding. It is anticipated that this comprehensive book will be a valuable source of information and reference to not only undergraduate and postgraduate students but also to the teaching fraternity. Key topics are given due emphasis and important concepts are reinforced with the help of numerous illustration enabling better understanding. It is sincerely hoped that this resource and reference book, written with the intention to provide a sound grounding, will ignite young minds and spark the desire for learning.

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- Microcomputer Controlled Devices
- Index


## Author

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A.K. Babu A.K.Babu is working as Associate Professor in the Department of Automobile Engineering, SRM Easwari Engineering College, Chennai, India. He has over 18 years of experience in teaching, research and industry. A.K.Babu, completed his Master Degree in Automobile Engineering from Madras Institute of Technology (M.I.T.), Anna University (1997). He has served in other countries like Malaysia, Ethiopia and Eritrea for more than 5 years. A.K.Babu has published considerable number of research papers in international journals and conferences. His research paper published in SAE Journal of Fuels and Lubricants awarded one the most outstanding papers in the year 2003.

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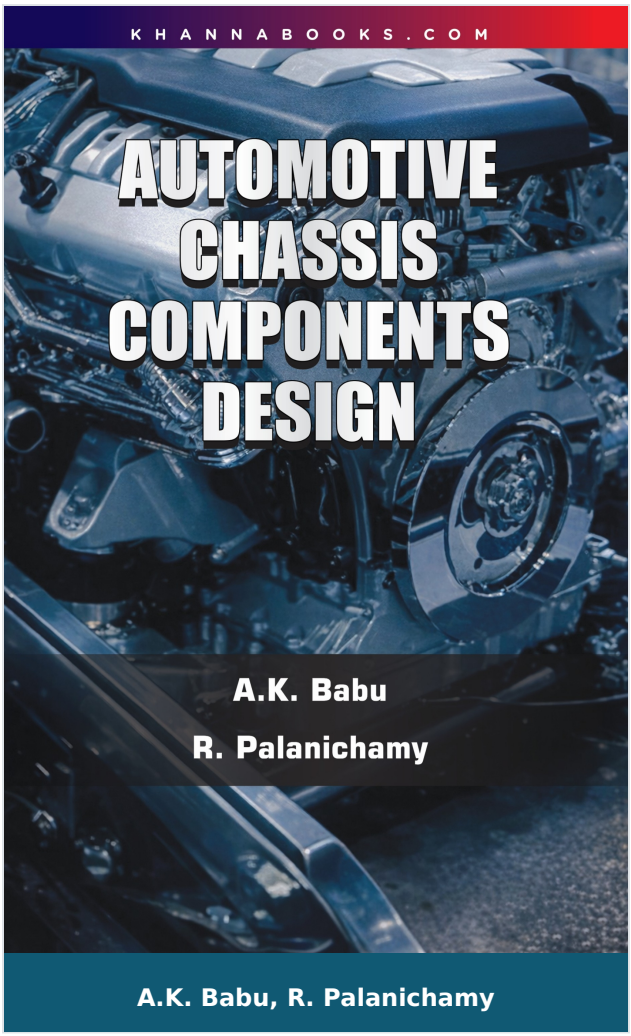


# Automotive Chassis Components Design

| | |
|---|---|
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## Product Description

**Automotive Chassis Components Design**

Automotive Chassis Components Design is a comprehensive academic and professional guide dedicated to the intricate engineering of a vehicle’s skeletal and foundational systems. Authored by A. K. Babu, the text serves as a vital bridge between theoretical mechanics and practical automotive design, focusing on the five basic components that define a modern automobile: the power plant, chassis, power train, body, and accessories. The book provides an in-depth exploration of the “running gear,” including the frame, suspension, steering, brakes, and wheels—systems that directly impact riding comfort, vehicle stability, and safety.

Designed for students of automotive and mechanical engineering, as well as practicing professionals in the automotive industry, the book maintains a rigorous academic tone while ensuring concepts are accessible through detailed diagrams and solved problems. Its core theme revolves around the functional integration of components to withstand dynamic and static loads, optimize maneuverability, and ensure passenger comfort. From the design of heavy-duty truck frames to the precise gear ratios of synchromesh gearboxes, this text provides the analytical tools required to design safe and efficient modern vehicles.

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- Clutch
- gearbox
- Driveline
- Final Drive
- Front Axie
- Rear Axie
- Suspension
- Steering


## Author


**A.K. Babu**

A.K. Babu A.K.Babu is working as Associate Professor in the Department of Automobile Engineering, SRM Easwari Engineering College, Chennai, India. He has over 18 years of experience in teaching, research and industry. A.K.Babu, completed his Master Degree in Automobile Engineering from Madras Institute of Technology (M.I.T.), Anna University (1997). He has served in other countries like Malaysia, Ethiopia and Eritrea for more than 5 years. A.K.Babu has published considerable number of research papers in international journals and conferences. His research paper published in SAE Journal of Fuels and Lubricants awarded one the most outstanding papers in the year 2003.

**R. Palanichamy**

Dr. R. Palanichamy Director, Pandian



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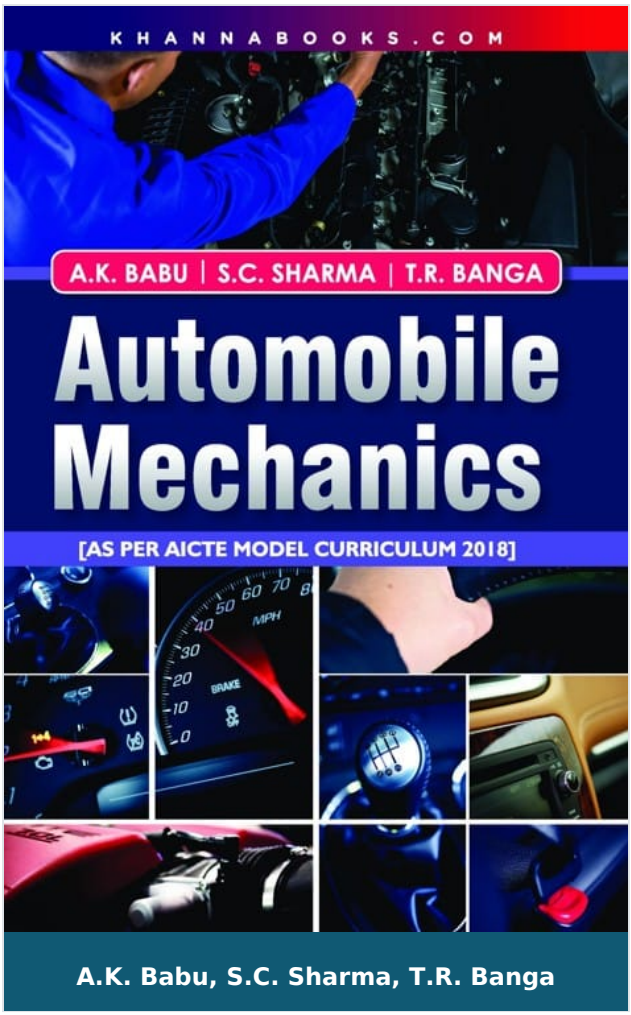


# Automobile Mechanics

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- Chapter-8. Axle
- Chapter-9. Steering
- Chapter-10. Suspension System
- Chapter-11. Brake System
- Chapter-12. Wheel and Tyre
- Chapter-13. Vehicle Electrical System
- Chapter-14. Instruments and Accessories


## Author

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A.K. Babu A.K.Babu is working as Associate Professor in the Department of Automobile Engineering, SRM Easwari Engineering College, Chennai, India. He has over 18 years of experience in teaching, research and industry. A.K.Babu, completed his Master Degree in Automobile Engineering from Madras Institute of Technology (M.I.T.), Anna University (1997). He has served in other countries like Malaysia, Ethiopia and Eritrea for more than 5 years. A.K.Babu has published considerable number of research papers in international journals and conferences. His research paper published in SAE Journal of Fuels and

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S.C. Sharma after graduation in 1966 joined as lecturer in Mechanical Engineering. He had been associated for more than 4 decades in various fields including learning and management of projects in India and abroad in different capacities. While working Hydro power projects for more than 15 years he has actively associated with various environmental and rehabilitation & resettlement issues and successfully resolved various complicated issues. He has also worked as consultant for matters related to safety, environment and R & R. He has written about a dozen books on subjects related to engineering and management including management of projects.

**T.R. Banga**

T.R. Banga He is Formerly Principal Govt. Polytechnic , Alwar Rajasthan

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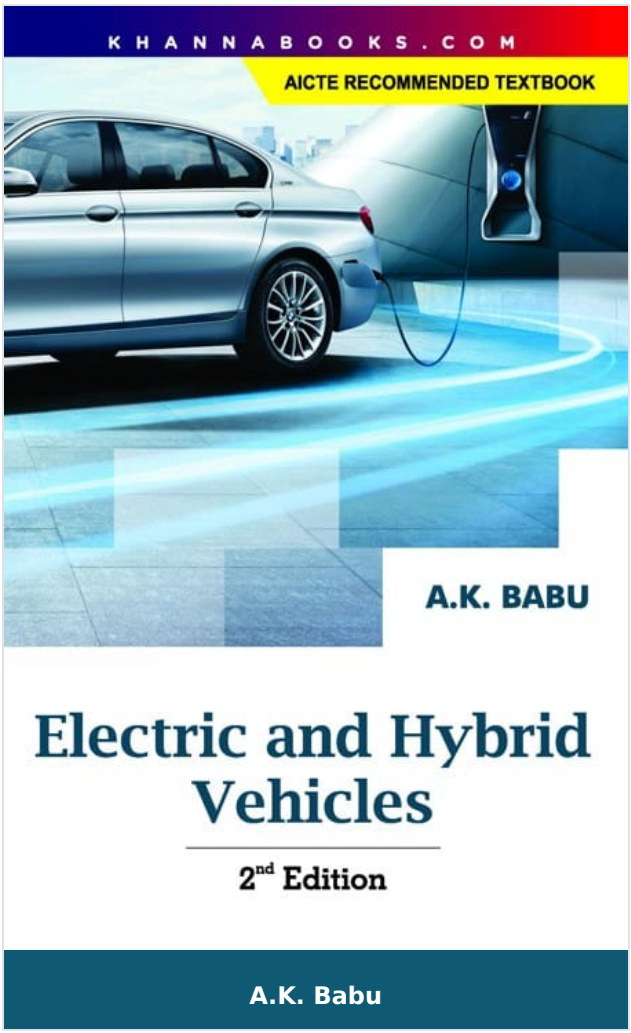


# Electric & Hybrid Vehicles

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- Control System
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- Performance of Electric Vehicles
- Charging
- Indian Electric Vehicles
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A.K. Babu A.K.Babu is working as Associate Professor in the Department of Automobile Engineering, SRM Easwari Engineering College, Chennai, India. He has over 18 years of experience in teaching, research and industry. A.K.Babu, completed his Master Degree in Automobile Engineering from Madras Institute of Technology (M.I.T.), Anna University (1997). He has served in other countries like Malaysia, Ethiopia and Eritrea for more than 5 years. A.K.Babu has published considerable number of research papers in international journals and conferences. His research paper published in SAE Journal of Fuels and Lubricants awarded one the most outstanding papers in the year 2003.

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