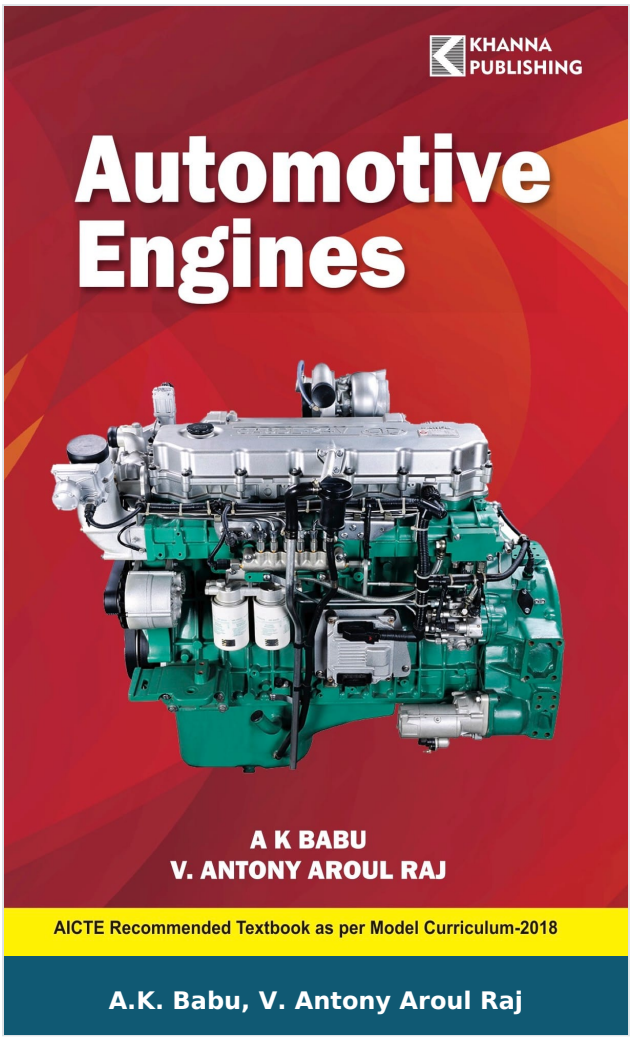


Automotive Engines

Author :	A.K. Babu, V. Antony Aroul Raj
ISBN 13 :	978-93-86173-15-7
ISBN 10 :	9386173158
E-ISBN 13 :	978-93-86173-15-7
Edition :	First
Pages :	296
Type of book :	Physical
Year :	2019
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 299.00
Categories :	Automobile Engineering, UNIVERSITY RECOMMENDED, Automobile Engineering, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House
4C/4344, Ansari Road, Daryaganj, New Delhi-110002
Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

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.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- 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

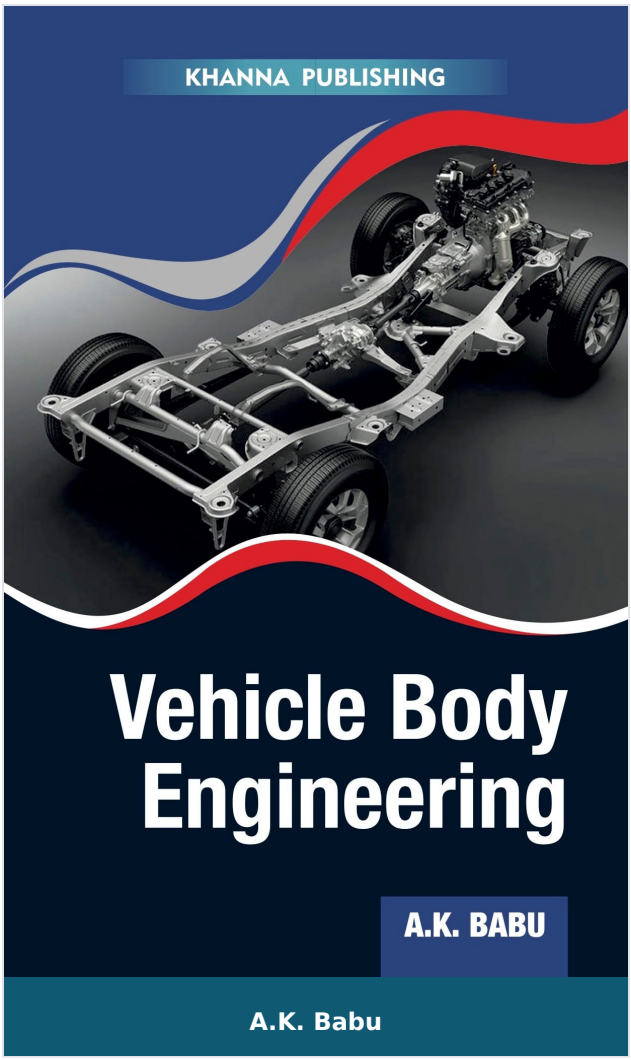
V. Antony Aroul Raj Dr.V.Antony Aroul Raj is a Professor in the Department of Mechanical Engineering, SRM Easwari Engineering College, Chennai, India. He has over 15 years of research and teaching experience. Dr.V.Antony Aroul Raj obtained B. E. Degree in Mechanical Engineering from the Pondicherry Engineering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

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320



Vehicle Body Engineering

Author :	A.K. Babu
ISBN 13 :	978-93-90779-01-7
ISBN 10 :	9390779014
E-ISBN 13 :	978-93-90779-01-7
Edition :	First
Pages :	176
Type of book :	Physical
Year :	2026
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 248.00
Categories :	Automobile Engineering, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Product Description

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.-

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- Introduction
- Car body Details
- Bus body Details
- Commercial vehicle details
- Vehicle aerodynamics
- Body materials, trim, mechanisms and body repair
- Bibliography
- Index

Author

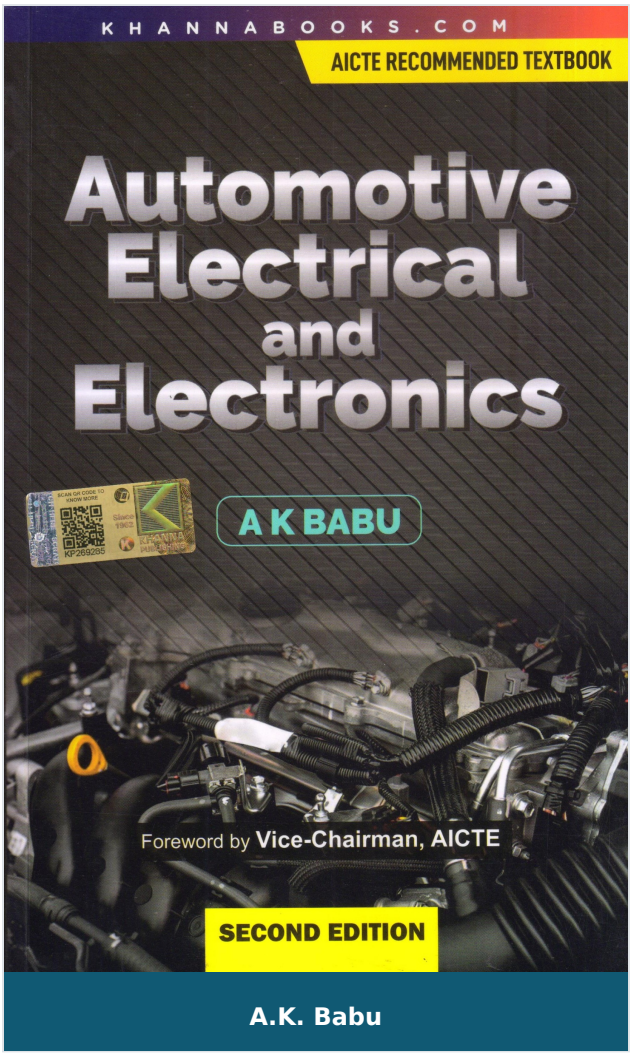
A.K. Babu

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.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320



Automotive Electrical and Electronics

Author :	A.K. Babu
ISBN 13 :	978-93-82609-69-8
ISBN 10 :	9382609695
E-ISBN 13 :	978-93-82609-69-8
Edition :	Second
Pages :	380
Type of book :	Physical
Year :	2024
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 369.00
Categories :	Automobile Engineering, UNIVERSITY RECOMMENDED, Electrical, Electronics & Communication Engineering, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House
4C/4344, Ansari Road, Daryaganj, New Delhi-110002
Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Product Description

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.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- Fundamentals of Electricity
- Chapter
- Vehicle Electrical System
- Chapter
- Battery
- Chapter
- Charging System
- Chapter
- Starting System
- Chapter
- Ignition System
- Chapter
- Electronic Ignition System
- Chapter
- Automotive Wiring
- Chapter
- Lighting System
- Chapter
- Accessories
- Chapter
- Electronic Engine Management
- Chapter
- Safety and Warning Systems

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

- Chapter
- Microcomputer Controlled Devices
- Index

Author

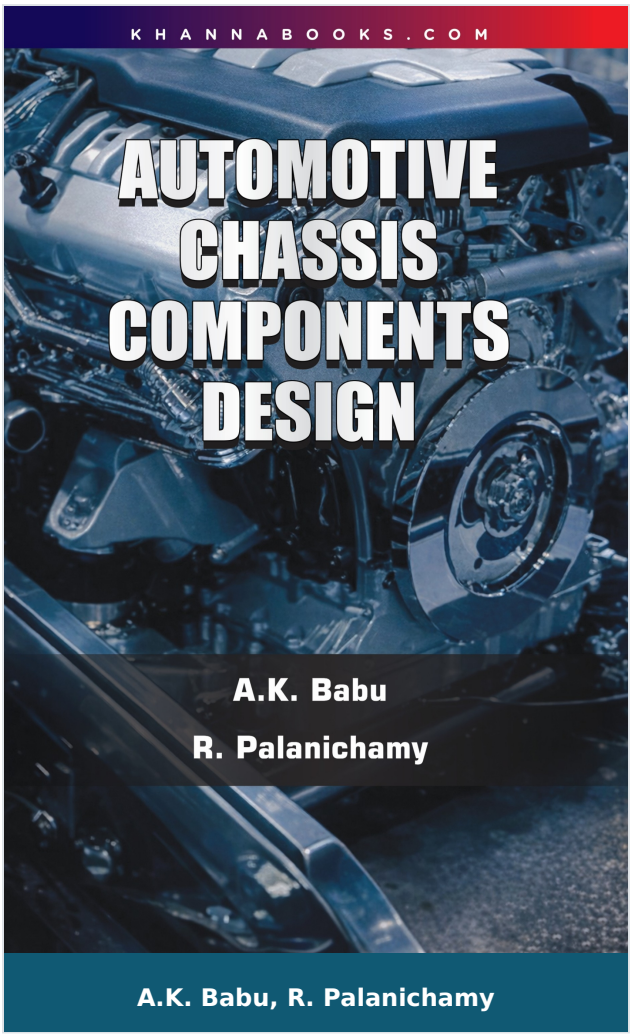
A.K. Babu

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.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320



Automotive Chassis Components Design

Author :	A.K. Babu, R. Palanichamy
ISBN 13 :	978-93-55387-70-7
ISBN 10 :	9355387709
E-ISBN 13 :	978-93-55387-70-7
Edition :	First
Pages :	214
Type of book :	Physical
Year :	2026
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 295.00
Categories :	New Arrivals, Automobile Engineering, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

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.

Salient Features:

• **Comprehensive Frame Analysis**: Detailed study of conventional, integral, and semi-integral frames, focusing on materials like carbon steel and their resistance to vertical bending and torsion.

• **Transmission System Engineering**: In-depth coverage of clutch requirements and gearbox types, including sliding mesh, constant mesh, and synchromesh systems for optimized torque delivery.

Khanna Publishing House
4C/4344, Ansari Road, Daryaganj, New Delhi-110002
Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

• **Driveline Dynamics**: Technical exploration of propeller shafts and universal joints, with a focus on torsional strength, whirling speeds, and critical vibration avoidance.

• **Final Drive Mechanics**: Expert analysis of axle ratios and gear types, such as hypoid and worm-and-wheel drives, to enhance vehicle stability and quiet operation.

• **Axle and Load Design**: Comprehensive design methodologies for front and rear axles, examining load distribution, stresses, and the mechanics of semi-floating vs. full-floating types.

• **Advanced Suspension Systems**: Practical insights into leaf and coil springs, including the design of torsion bars and methods to reduce inter-leaf friction for better handling.

• **Steering Precision**: Rigorous examination of steering geometry, comparing Ackermann and Davis mechanisms to ensure true rolling and minimal tire wear during maneuvers.

• **Applied Problem Solving**: Every chapter is reinforced with design problems, exercise questions, and multiple-choice questions to test both theoretical knowledge and practical application.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- Preface
- Introduction
- Vehicle Frame
- 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.

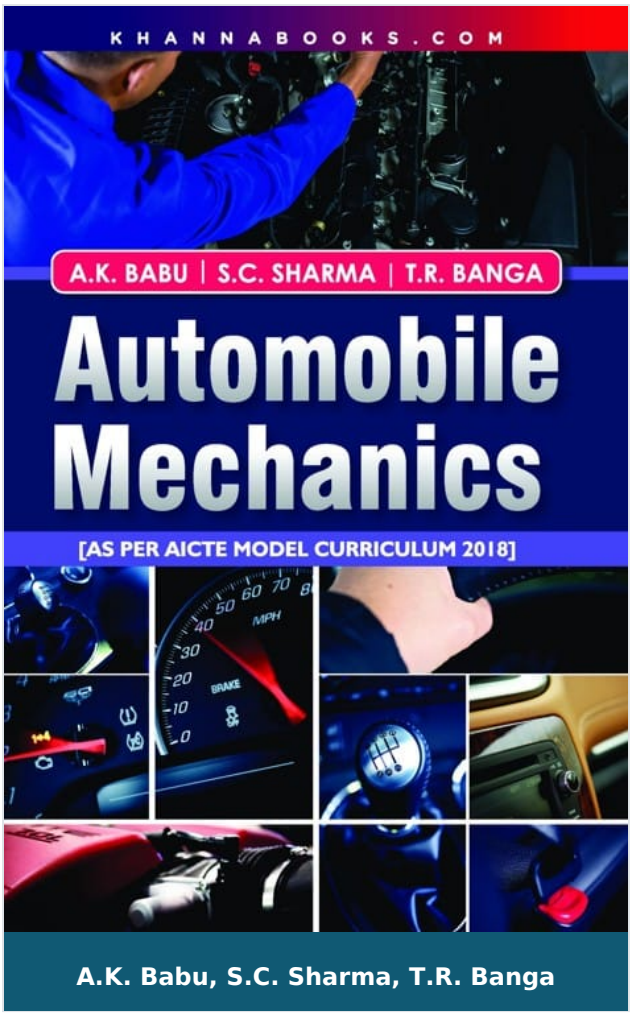
R. Palanichamy

Dr. R. Palanichamy Director, Pandian

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320



Automobile Mechanics

Author :	A.K. Babu, S.C. Sharma, T.R. Banga
ISBN 13 :	978-93-86173-01-0
ISBN 10 :	9386173018
E-ISBN 13 :	978-93-86173-01-0
Edition :	First
Pages :	512
Type of book :	Physical
Year :	2024
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 350.00
Categories :	Automobile Engineering, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Product Description

The book is designed to become a valid source of information to assist the student both in and out of the classroom to attain his or her objective. the structure of the text book is as follows:

Chapter 1 is an introduction to the book, covering the basic information on automobiles.

Chapter 2 deals with engines and their auxiliary units.

Chapters 3-10 cover several aspects of design of automobile components - SI system, background mathematics and advice on problem solving, particularly exam questions.

Chapters 11-15 cover essential theory part of support system for vehicles. Numerous designs and fully worked problems are provided at the end of the chapter. It is expected that as the student works through the examples and problems, he or she will develop a greater understanding of the mathematics required for engineering. To help the student develop a sound grasp of the principles covered there are many diagrams, notes and applications as an aid to develop knowledge and facilitate understanding.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- Chapter-1. Automobile
- Chapter-2. Engine
- Chapter-3. Frame
- Chapter-4. Clutch
- Chapter-5. Gearbox
- Chapter-6. Propeller-shaft Assembly
- Chapter-7. Final Drive and Differential Assembly
- 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

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

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Lubricants awarded one the most outstanding papers in the year 2003.

S.C. Sharma

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.

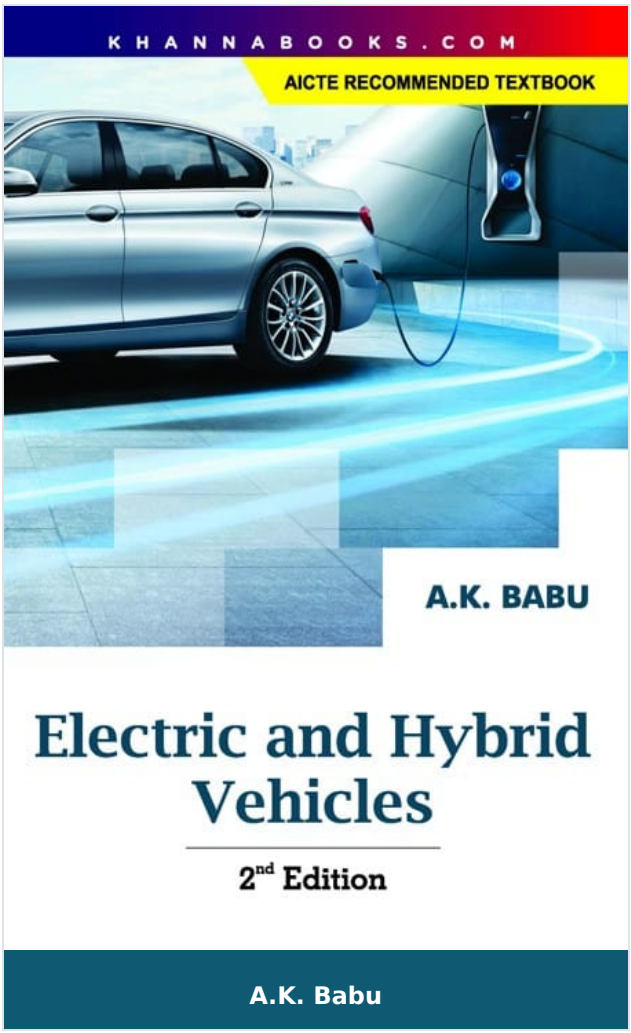
T.R. Banga

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

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320



Electric & Hybrid Vehicles

Author :	A.K. Babu
ISBN 13 :	978-81-95123-15-5
ISBN 10 :	8195123155
E-ISBN 13 :	978-81-95123-15-5
Edition :	Second
Pages :	212
Type of book :	Physical
Year :	2025
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 248.00
Categories :	Automobile Engineering, UNIVERSITY RECOMMENDED, Automobile Engineering, Book Store
Condition Type :	New
Country Origin :	India

Khanna Publishing House
4C/4344, Ansari Road, Daryaganj, New Delhi-110002
Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Product Description

This book is written to be easy to read and to meet the critical skill requirements of students studying Automobile Engineering, Mechanical Engineering and Electrical Engineering. The content is organized into 25 easy-to understand chapters. The fundamentals, electric vehicles (EVs), hybrid electric vehicles (HEVs), and fuel cell vehicles (FCVs) are all covered in this book. it covers the performance, configuration, and control strategy of several electric and hybrid electric vehicles in details. Colleges and technical universities offering core and elective subjects like Electric and hybrid Vehicles and New Generation Vehicles can utilize this course book as a textbook and major reference book.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

Table Of Contents

- Fundamentals of Electricity
- Fundamentals of Electronics
- Electric Vehicle Evolution
- History of Hybrid Vehicles
- Electric Vehicle
- Classification of EVs
- Energy Sources
- Electric Motor
- Control System
- Configurations of Electric Vehicles
- Performance of Electric Vehicles
- Charging
- Indian Electric Vehicles
- Hybrid Vehicles
- Hybridisation
- Drive Configuration of HEVs
- Performance of Hybrid Vehicles
- Fuel Cell Electric Vehicle (FCEV)
- Comparison
- Transmission in EVs
- Hybrid Cars in India
- Steering System for EVs and HEVs
- Suspension System for EVs And HEVs

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

- Brake System For EVs
- Best Electric and Hybrid Cars.

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.

Khanna Publishing House

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320