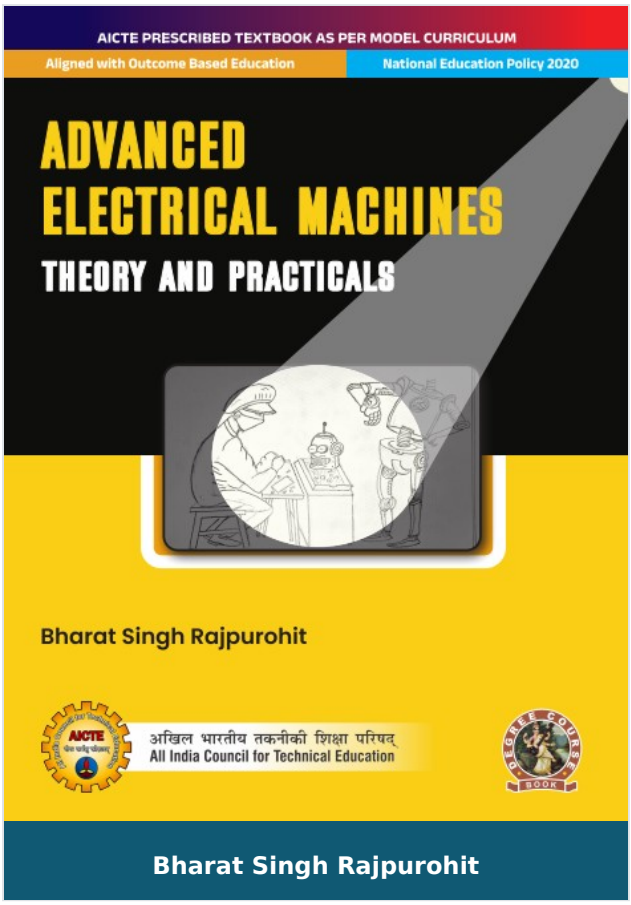


Advanced Electrical Machines: Theory and Practicals

Author :	Bharat Singh Rajpurohit
ISBN 13 :	978-93-55382-16-0
ISBN 10 :	9355382162
E-ISBN 13 :	978-93-55382-16-0
Edition :	First
Pages :	456
Type of book :	Physical
Year :	2026
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 798.00
Categories :	English Books, Book Store, AICTE Prescribed Textbooks
Condition Type :	New
Country Origin :	India

Product Description

Advanced Electrical Machines: Theory and Practicals

“Advanced Electrical Machines: Theory and Practical’s” is a course that equips engineering students with a comprehensive understanding of advanced concepts in AC electrical machines, enabling them to analyze, design, and evaluate machine performance. This textbook offers a well-structured, student friendly introduction to AC machines, specifically tailored for fourth semester undergraduate students of core engineering branches. Drawing upon the AICTE’s revised model curriculum, the material presents a balanced integration of theory and practical applications. It covers key topics such as the fundamentals of AC machine windings, the behavior of pulsating and revolving magnetic fields, the operational characteristics of induction and synchronous machines, and single-phase motor theory. Emphasis is placed on understanding the underlying electromagnetic principles, performance characteristics, and modern methods for control and testing. Book will help students in building a strong foundation and to gain both analytical and practical competencies. By the end of this course, students will be able to understand, analyze, and characterize the AC machines.

Salient Features:

- Content of the book aligned with the mapping of Course Outcomes, Program Outcomes, and Unit Outcomes.
- At the beginning of each unit learning outcomes are listed to make the student understand what is expected of him/her after completing that unit.
- The book provides a lot of recent information, interesting facts, references for further reading, simulation codes, etc.
- Student and teacher-centric subject materials included in the book in a balanced and chronological manner.

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

- Figures, tables, and output waveforms are included to improve the clarity of the topics.
- Apart from essential information a ‘Know More’ section is also provided in each unit to extend the learning beyond the syllabus.
- At the end of each chapter, short questions, objective questions, and long answer exercises are given for the students to practice.
- Problems including numerical examples are solved with systematic steps provided.

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

- Foreword
- Acknowledgement
- Preface
- Outcome Based Education
- Course Outcomes
- Abbreviations
- Guidelines for Teachers
- Guidelines for Students
- List of Figures
- Fundamentals of AC Machine Windings
- Pulsating and Revolving Magnetic Fields
- Induction Machines
- Single-Phase Motors
- Synchronous Machines
- Advanced Electrical Machines: Curriculum Experiments
- Unit summary
- References and suggested readings
- Further Reading
- References for Further Learning
- CO and PO Attainment Table
- Index

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

Author

Bharat Singh Rajpurohit

Dr. Bharat Singh Rajpurohit Professor, Department of Electrical Engineering Indian Institute of Technology Jodhpur, Karwar-342030, Jodhpur, Rajasthan, 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