



Power Electronics: Theory and Practicals

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ISBN 13 :	978-93-55385-95-6
ISBN 10 :	93-55385-95-1
E-ISBN 13 :	978-93-55385-95-6
Edition :	First
Pages :	328
Type of book :	Paperback
Year :	2026
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 598.00
Categories :	AICTE Prescribed Textbooks, English Books
Condition Type :	New
Country Origin :	India

Product Description

Power Electronics: Theory and Practicals This book serves as an essential resource for students and professionals in Electrical Engineering. Starting with the basics of semiconductor technology, the book gradually introduces the basics of power electronics covering construction, principle of operations, various characteristics of power transistors and thyristors, SCR turned-on and turned-off methods, and industrial control circuits using power electronics. All are grouped in separate units. The subject matters are presented constructively so that an electrical engineering degree prepares students to work in different sectors at the very forefront of technology. Laboratory experiments on the basics of power electronics as recommended by AICTE are included in the units. **Salient**

Features:

- Detailed alignment of content with Course Outcomes, Program Outcomes, and specific Unit Outcomes.
- The contents of each Unit are as per the syllabus of second-year undergraduate.
- The book is enriched with up-to-date information, important facts, and QR codes linking to valuable E-resources.
- A balance of student and teacher-centric materials, presented in an orderly chronological format.
- The book is enriched with numerous solved problems in every unit for proper understanding of the related topics.
- Laboratory experiments on the basics of power electronics are presented at the end of each Unit.
- Extensive use of figures and tables enhances understanding of the topics and the concept.
- The 'Know more' section in each unit encourages exploration beyond the standard syllabus.
- A variety of exercises including short questions, objective-type questions, and numerical problems, are provided at the end of each chapter.



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- Turn-on and turn-off methods of thyristors
- Phase controlled rectifiers
- Industrial control circuits

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