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› Theodore Wildi Electrical Machines, Drives and Power Systems Instruction Manual

## **Pearson Electrical Machines, Drives and Power Systems**

# **Instruction Manual: Theodore Wildi Electrical Machines, Drives and Power Systems**

Sixth Edition

Authored by Theodore Wildi, Published by Pearson

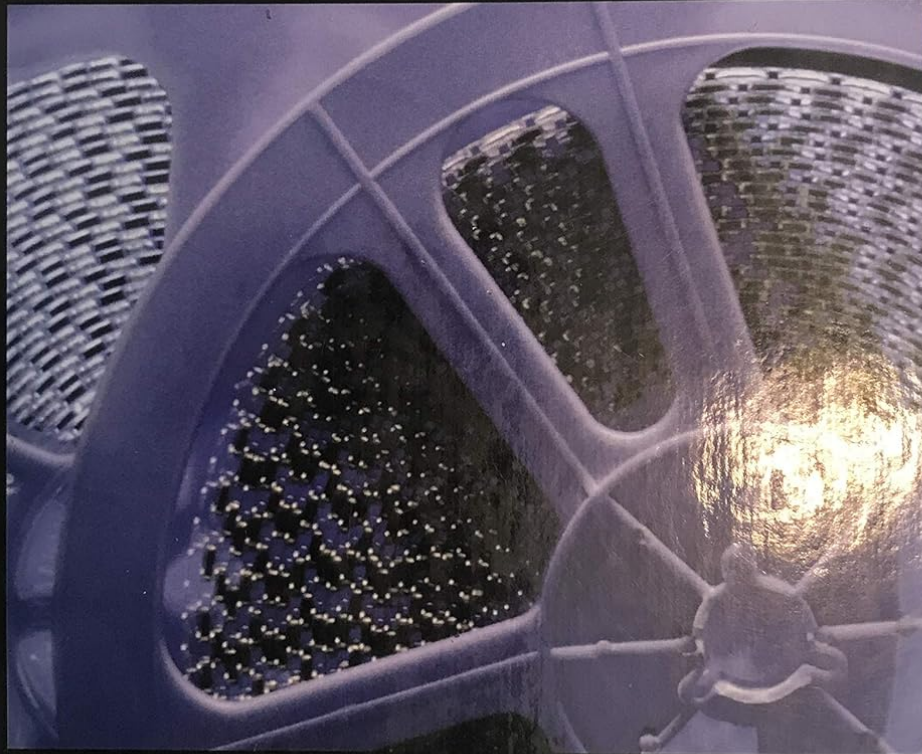
### **INTRODUCTION TO THE TEXTBOOK**

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This textbook, "Electrical Machines, Drives and Power Systems," offers a theoretical, practical, and multidisciplinary approach to understanding modern electric power. It is designed to provide users with a broad and comprehensive knowledge base in the field. The content reflects recent advancements in power technology, including the integration of power electronics into industrial drives, thereby expanding career opportunities within the sector.

# ELECTRICAL MACHINES, DRIVES, AND POWER SYSTEMS

S I X T H E D I T I O N



Theodore Wildi

Image: Front cover of the textbook, displaying the title "Electrical Machines, Drives, and Power Systems" and the author "Theodore Wildi."

## KEY TOPICS COVERED

The book systematically covers fundamental concepts and advanced applications across several critical areas:

- Fundamentals of electricity, magnetism, and circuits.
- Principles of mechanics and heat as they relate to electrical systems.
- Detailed analysis of electrical machines and transformers.
- Electrical and electronic drives.

- Comprehensive overview of electric utility power systems.

## HOW TO EFFECTIVELY USE THIS BOOK

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This textbook is structured to facilitate learning for a diverse audience, from introductory users to professionals. It is recommended to follow the chapters sequentially to build foundational knowledge before progressing to more complex topics. The book integrates theoretical explanations with practical examples to enhance understanding.



Image: Side view of the textbook, showing its thickness and binding.

## NAVIGATING CONTENT AND FEATURES

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The Sixth Edition introduces several new and important topics:

- Properties and behavior of doubly-fed induction machines.
- Substantial additions to the treatment of pulse-width modulation (PWM).
- The Direct Torque Control (DTC) of induction motors.
- Wind power and wind farms.
- The HVDC Light™ method of transmitting electric power.

Exercises are provided at the end of each chapter, categorized into four levels: practical, intermediate, advanced, and industrial application. Solutions for the problems are available at the back of the book. A free Instructor's Manual (ISBN 0-13-177693-2) is available to instructors.

# ELECTRICAL MACHINES, DRIVES, AND POWER SYSTEMS

Theodore Wildi  
SIXTH EDITION

This best-selling text takes on a theoretical, practical, and multidisciplinary approach to provide readers with a thorough understanding of modern electric power.

New to this edition are five important topics:

- The properties and behavior of doubly-fed induction machines
- Substantial additions to the treatment of pulse-width modulation (PWM)
- The Direct Torque Control (DTC) of induction motors
- Wind power and wind farms
- The HVDC Light™ method of transmitting electric power

Exercises at the end of each chapter are divided into four levels: practical, intermediate, advanced, and industrial application. To encourage the reader to solve the problems, answers are given at the back of the book. A free Instructor's Manual (ISBN 0-13-177693-2) is available to instructors.

Challenging exercises are also independently offered on the Theodore Wildi website:  
<http://www.wildi-theo.com>

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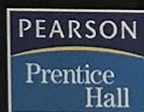


Image: Back cover of the textbook, detailing new topics, exercise structure, and instructor resources.

## CARE AND HANDLING OF YOUR TEXTBOOK

To ensure the longevity of your textbook, store it in a dry place away from direct sunlight and extreme temperatures. Avoid bending the spine excessively or marking pages with permanent ink. Handle with clean hands to prevent smudges and stains.

## ADDRESSING LEARNING CHALLENGES

If you encounter difficulties understanding specific concepts, consider reviewing preceding chapters or consulting the provided examples and exercises. The book is designed with a progressive learning curve. For further assistance, instructors can utilize the Instructor's Manual.

## SPECIFICATIONS

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Attribute	Detail
Publisher	Pearson
Publication Date	January 1, 2005
Edition	6th ed.
Language	English
Print Length	934 pages
ISBN-10	0131776916
ISBN-13	978-0131776913
Item Weight	3.9 pounds
Dimensions	7.76 x 2.19 x 9.48 inches

## PUBLISHER INFORMATION AND RESOURCES

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For additional information about this book or other technology titles, please visit the publisher's website:

- **Publisher Website:** [www.prenhall.com](http://www.prenhall.com)
- **Author's Website (for challenging exercises):** [www.wildi-theo.com](http://www.wildi-theo.com)
- **ISBN-13:** [978-0131776913](https://www.isbn-international.org/product/9780131776913)