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# Basic Electrical Engineering By D C Kulshreshtha

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FUNDAMENTALS OF ELECTRICAL ENGINEERING

Basic Quantum Mechanics for Electrical Engineering

FUNDAMENTALS OF ELECTRICAL AND ELECTRONICS ENGINEERING

Basic Elec Engg,2E

Fundamentals of Electrical Engineering I

Basic Electrical Engineering

Fundamentals of Electric Power Engineering

A One-Semester Text

Basic Electrical Engineering

A Textbook of Electrical Technology - Volume I (Basic Electrical Engineering)

ABC of Electrical Engineering

Basic Electrical Engineering

Basic Electrical Engineering

Electrical Engineering 101

Basic Electrical Engineering

Principles, Designs & Applications

Basic Electrical Engineering

Basic Electrical Engineering

Basics of Electrical Engineering for Diploma Engineer

Basic Electrical and Electronics Engineering | Second Edition

Basic Electrical Engg 5E

Cover Basic Electrical Engineering and Electrical Machines For Ist Year Students of

B.E (all Branches), B. Tech and A.I.M.E

Fundamentals of Electrical Engineering

Basic Electrical Engineering, 4e

Basic Electrical Engineering

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BASIC ELECTRICAL ENGINEERING

Basic Electrical Engineering

Schaum's Outline of Basic Electrical Engineering

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From Electromagnetics to Power Systems  
Everything You Should Have Learned in School...but Probably Didn't

*Basic  
Electrical  
Engineering  
By D C  
Kulshreshtha*

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**TIANA DUDLEY**

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*FUNDAMENTALS OF  
ELECTRICAL ENGINEERING*  
I. K. International Pvt Ltd  
Basic Quantum Mechanics  
for Electrical Engineering  
examines the basics of  
Quantum mechanics and  
a must have for Electrical

Engineering. Readers are  
provided with detailed  
information on basic  
quantum mechanics  
specifically focused on  
Electrical engineering.  
Basic Quantum Mechanics  
for Electrical Engineering  
Tata McGraw-Hill  
Education  
This second edition,  
extensively revised and  
updated, continues to  
offer sound, practically-

oriented, modularized  
coverage of the full  
spectrum of fundamental  
topics in each of the  
several major areas of  
electrical and electronics  
engineering. Circuit  
Theory Electrical  
Measurements and  
Measuring Instruments  
Electric Machines Electric  
Power Systems Control  
Systems Signals and  
Systems Analog and

Digital Electronics including introduction to microcomputers. The book conforms to the syllabi of Basic Electrical and Electronic Sciences prescribed for the first-year engineering students. It is also an ideal text for students pursuing diploma programmes in Electrical Engineering. Written in a straightforward style with a strong emphasis on primary principles, the main objective of the book is to bring an understanding of the

subject within the reach of all engineering students. What is New to This Edition : Fundamentals of Control Systems (Chapter 24) Fundamentals of Signals and Systems (Chapter 25) Introduction to Microcomputers (Chapter 32) Substantial revisions to chapters on Transformer, Semiconductor Diodes and Transistors, and Field Effect Transistors Laplace Transform (Appendix B) Applications of Laplace Transform (Appendix C) PSpice (Appendix E) key Features : Numerous

solved examples for sound conceptual understanding End-of-chapter review questions and numerical problems for rigorous practice by students Answers to all end-of-chapter numerical problems An objective type Questions Bank with answers to hone the technical skills of students for viva voce and preparation for competitive examinations. FUNDAMENTALS OF ELECTRICAL AND ELECTRONICS ENGINEERING Independently Published

This book is designed to help the first-year engineering students in building their concepts in the course of Basic Electrical Engineering, It introduces the subject in a simple and lucid manner for a better understanding. It adopts a student friendly approach with many solved examples and unsolved questions. This book will serve as a stepping stone for students in understanding the course efficiently. It provides complete coverage of MAKAUT 2018 syllabu.

Basic Elec Engg,2E  
Firewall Media  
Basic Electrical and Electronics Engineering provides an overview of the basics of electrical and electronic engineering that are required at the undergraduate level. The book allows students outside electrical and electronics engineering to easily  
Fundamentals of Electrical Engineering I PHI Learning Pvt. Ltd.  
This book deals with the fundamentals of electrical engineering concepts like

design & application of circuitry, equipment for power generation & distribution and machine control. Features  
Transformers discussed in detail. Thoroughly revised chapters on Single and Three-Phases Induction Motors. New chapter on:  
1. Three-Phase Alternator  
2. Electromechanical Energy Conversion  
3. Testing of DC Machines  
Basic Electrical Engineering Tata McGraw-Hill Education  
This book presents comprehensive coverage of all the basic concepts

in electrical engineering. It is designed for undergraduate students of almost all branches of engineering for an introductory course in essentials of electrical engineering. This book explains in detail the properties of different electric circuit elements, such as resistors, inductors and capacitors. The fundamental concepts of dc circuit laws, such as Kirchhoff's current and voltage laws, and various network theorems, such as Thevenin's theorem,

Norton's theorem, superposition theorem, maximum power transfer theorem, reciprocity theorem and Millman's theorem are thoroughly discussed. The book also presents the analysis of ac circuits, and discusses transient analysis due to switch operations in ac and dc circuits as well as analysis of three-phase circuits. It describes series and parallel RLC circuits, magnetic circuits, and the working principle of different kinds of transformers. In addition, the book explains the

principle of energy conversion, the operating characteristics of dc machines, three-phase induction machines and synchronous machines as well as single-phase motors. Finally, the book includes a discussion on technologies of electric power generation along with the different types of energy sources. Key Features : Includes numerous solved examples and illustrations for sound conceptual understanding. Provides well-graded chapter-end problems to develop the

problem-solving capability of the students.

Supplemented with three appendices addressing matrix algebra, trigonometric identities and Laplace transforms of commonly used functions to help students understand the mathematical concepts required for the study of electrical engineering.

*Fundamentals of Electric Power Engineering*

RAJATH PUBLISHERS

Electric power engineering has always been an integral part of electrical engineering

education. Providing a unique alternative to existing books on the market, this text presents a concise and rigorous exposition of the main fundamentals of electric power engineering. Contained in a single volume, the materials can be used to teach three separate courses — electrical machines, power systems and power electronics, which are in the mainstream of the electrical engineering curriculum of most universities worldwide. The book also highlights

an in-depth review of electric and magnetic circuit theory with emphasis on the topics which are most relevant to electric power engineering.

Contents: Review of Electric and Magnetic Circuit Theory: Basic Electric Circuit Theory Analysis of Electric Circuits with Periodic Non-sinusoidal Sources Magnetic Circuit Theory Power Systems: Introduction to Power Systems Fault Analysis Transformers Synchronous Generators Power

Flow Analysis and Stability of Power Systems  
 Induction Machines  
 Power Electronics: Power Semiconductor Devices  
 Rectifiers Inverters DC-to-DC Converters (Choppers)  
 Keywords: Power Systems; Electrical Machines; Power Electronics  
**A One-Semester Text**  
 PHI Learning Pvt. Ltd.  
 This hallmark text on Basic Electrical Engineering provides concise and balanced account of all key

concepts as well as applications in the field. With the liberal use of practical illustrations and numerous exercises, it offers an unparalleled exposure to Electricity Fundamentals, Network Theory, Electromagnetism, Electric Machines, Transformers, and Measuring Instruments.  
*Basic Electrical Engineering* CBS Publishers & Distributors Pvt Limited, India  
 The book is written per the syllabus of first year engineering degree

course for various universities. It covers basic topics of electrical and electronics engineering. It also includes worked out examples, University examination questions and answers, exercise, etc in every chapter. This book is suitable for course in basic electrical engineering under various Universities. Authors have tried to elucidate the topics in such a way that even a mediocre student can assimilate them. Many solved problems, sample question papers



and exercise given in every section will provide a thorough understanding of the topics. Other features include attractive writing style, well structured equations and numerical examples, pictures of high clarity, etc. This book is one of the prescribed text books for the syllabus of Kerala University B. Sc Electronics course.

**A Textbook of Electrical Technology - Volume I (Basic Electrical Engineering)**  
Springer  
Basic Electrical

Engineering is a core course for the first-year students of all engineering disciplines across the country. This course enables them to apply the basic concepts of Electrical engineering for multi-disciplinary tasks, and lays the foundation for higher level courses in electrical and electronics engineering degrees. An established hallmark, this revised edition of the book continues to dwell on all the key concepts and applications in the field and covers the subject in

its entirety. Curated with great care, it provides an unmatched exposure to the fundamentals of Electricity, Network theory, Electric machines and Measuring instruments. Rich pool of problems and appendices enhance the utility of the book and make it a lasting resource for students as well as instructors.

**ABC of Electrical Engineering** McGraw-Hill Education

This is the only book on the market that has been conceived and deliberately written as a

one-semester text on basic electric circuit theory. As such, this book employs a novel approach to the exposition of the material in which phasors and ac steady-state analysis are introduced at the beginning. This allows one to use phasors in the discussion of transients excited by ac sources, which makes the presentation of transients more comprehensive and meaningful. Furthermore, the machinery of phasors paves the road to the introduction of transfer functions, which are then

used in the analysis of transients and the discussion of Bode plots and filters. Another salient feature of the text is the consolidation into one chapter of the material concerned with dependent sources and operational amplifiers. Dependent sources are introduced as linear models for transistors on the basis of small signal analysis. In the text, PSpice simulations are prominently featured to reinforce the basic material and understanding of circuit

analysis. Key Features \* Designed as a comprehensive one-semester text in basic circuit theory \* Features early introduction of phasors and ac steady-state analysis \* Covers the application of phasors and ac steady-state analysis \* Consolidates the material on dependent sources and operational amplifiers \* Places emphasis on connections between circuit theory and other areas in electrical engineering \* Includes PSpice tutorials and

examples \* Introduces the design of active filters \* Includes problems at the end of every chapter \* Priced well below similar books designed for year-long courses

Basic Electrical Engineering McGraw-Hill Education

This third edition of Basic Electrical Engineering provides a lucid exposition of the principles of electrical engineering. The book provides an exhaustive coverage of topics such as network theory and analysis, magnetic circuits

and energy conversion, ac and dc machines, basic analogue instruments, and power systems. The book also gives an introduction to illumination concepts.

### **Basic Electrical Engineering**

Tata McGraw-Hill Education

The primary objective of vol. I of A Text Book of Electrical Technology is to provide a comprehensive treatment of topics in Basic Electrical Engineering both for electrical as well as nonelectrical students pursuing their studies in

civil, mechanical, mining, textile, chemical, industrial, environmental, aerospace, electronic and computer engineering both at the Degree and diploma level. Based on the suggestions received from our esteemed readers, both from India and abroad, the scope of the book has been enlarged according to their requirements. Almost half the solved examples have been deleted and replaced by latest examination papers set upto 1994 in different engineering collage and

technical institutions in India and abroad.

RAJATH PUBLISHERS

The aim of this book is to provide a consolidated text for the first year B.E. Computer Science and Engineering students and B.Tech Information Technology students of Anna University. The syllabus has been thoroughly revised for the non-semester yearly pattern by the University. The book, made up of five chapters, systematically covers the five units of the syllabus. It begins with a detailed discussion

on the fundamentals of electric circuits. DC circuits, AC circuits, 3-phase circuits, resonance and the network theorems. Lecture-type presentation of the rudiments of the fundamentals in conjunction with hundreds of solved examples is the strength of this book. Magnetic circuits and various magnetic elements and their properties, with number of illustrations are presented. DC machines and transformers are further dealt with.

Equivalent circuits of machines supported with the respective photographs will ease the reader to understand the concepts of machines much better. Synchronous machines and asynchronous machines and fundamentals of control systems with various practical examples and relevant worked illustrations conclude this book. A large number of numerical illustrations and diagrammatic representations make this book valuable for students

and teachers.

### **Electrical Engineering**

#### **101 Firewall Media**

This book serves as a tool for any engineer who wants to learn about circuits, electrical machines and drives, power electronics, and power systems basics. From time to time, engineers find they need to brush up on certain fundamentals within electrical engineering. This clear and concise book is the ideal learning tool for them to quickly learn the basics or develop an understanding of

newer topics.

Fundamentals of Electric Power Engineering:

From Electromagnetics to Power Systems helps non-electrical engineers amass power system information quickly by imparting tools and trade tricks for remembering basic concepts and grasping new developments.

Created to provide more in-depth knowledge of fundamentals—rather than a broad range of applications only—this comprehensive and up-to-date book: Covers topics

such as circuits, electrical machines and drives, power electronics, and power system basics as well as new generation technologies. Allows non-electrical engineers to build their electrical knowledge quickly. Includes exercises with worked solutions to assist readers in grasping concepts found in the book. Contains “in-depth” side bars throughout which pique the reader’s curiosity. Fundamentals of Electric Power Engineering is an ideal refresher course for

those involved in this interdisciplinary branch. For supplementary files for this book, please visit <http://booksupport.wiley.com/> <http://booksupport.wiley.com/a>

*Basic Electrical Engineering* Elsevier

Electrical Engineering 101 covers the basic theory and practice of electronics, starting by answering the question "What is electricity?" It goes on to explain the fundamental principles and components, relating them constantly to real-world examples. Sections

on tools and troubleshooting give engineers deeper understanding and the know-how to create and maintain their own electronic design projects. Unlike other books that simply describe electronics and provide step-by-step build instructions, EE101 delves into how and why electricity and electronics work, giving the reader the tools to take their electronics education to the next level. It is written in a down-to-earth style and explains jargon,

technical terms and schematics as they arise. The author builds a genuine understanding of the fundamentals and shows how they can be applied to a range of engineering problems. This third edition includes more real-world examples and a glossary of formulae. It contains new coverage of:

- Microcontrollers
- FPGAs
- Classes of components
- Memory (RAM, ROM, etc.)
- Surface mount
- High speed design
- Board layout
- Advanced digital electronics (e.g.

processors) Transistor circuits and circuit design Op-amp and logic circuits Use of test equipment Gives readers a simple explanation of complex concepts, in terms they can understand and relate to everyday life. Updated content throughout and new material on the latest technological advances. Provides readers with an invaluable set of tools and references that they can use in their everyday work.

Principles, Designs & Applications S. Chand Publishing

The book is written per the syllabus of first year engineering degree course for various universities. It covers basic topics of electrical engineering. It also includes worked out examples, University examination questions and answers, exercise, etc in every chapter. This book is suitable for course in basic electrical engineering under various Universities. Authors have tried to elucidate the topics in such a way that even a mediocre student can assimilate them.

Many solved problems, sample question papers and exercise given in every section will provide a thorough understanding of the topics. Other features include attractive writing style, well structured equations and numerical examples, pictures of high clarity, etc.

Basic Electrical Engineering McGraw-Hill Higher Education

A comprehensive guide to electrical engineering.

*Basic Electrical Engineering* Arcler Press  
In recent years Basic

Electrical Engineering: Principles, Designs & Applications are being used extensively in Electrical Engineering, Microprocessor, Electrical Drives and Power Electronics research and many other things. This rapid progress in Electrical & Electronics Engineering has created an increasing demand for trained Electrical Engineering personnel. This book is intended for the undergraduate and postgraduate students specializing in Electronics Engineering. It will also

serve as reference material for engineers employed in industry. The fundamental concepts and principles behind electronics engineering are explained in a simple, easy-to-understand manner. Each chapter contains a large number of solved example or problem which will help the students in problem solving and designing of Electronics system. This text book is organized into thirteen chapters. Chapter-1: AC and DC Circuit Analysis Chapter 2: Network Reduction and

Network Theorems  
Chapter-3: Resonance and Coupled Circuits  
Chapter-4: Transformer  
Chapter-5: Three Phase Circuits  
Chapter-6: Electrical Generator and Motor  
Chapter- 7: Switchgear, Protection & Earthing System  
Chapter- 8: Electricity Usage Monitors, Power Factor Correction and Basics of Battery & Its applications  
The book Basic Electrical Engineering: Principles, Designs & Applications is written to cater to the needs of the



undergraduate courses in the discipline of Electronics & Communication Engineering, Computer Science Engineering, Information Technology, Electronics & Instrumentation Engineering, Electrical & Electronics Engineering and postgraduate students specializing in Electronics. It will also serve as reference material for engineers employed in industry. The fundamental concepts and principles behind of Transformer, Three Phase

Circuits and Electrical Generator and Motor are explained in a simple, easy- to- understand manner. Each Chapter of book gives the design of Electrical Engineering that can be done by students of B.E./B.Tech/ M/Tech. level. Salient Features\*Detailed coverage of AC and DC Circuit Analysis, Network Reduction and Network Theorems and Resonance and Coupled Circuits.\*Comprehensive Coverage of Transformer, Three Phase Circuits and Electrical Generator and

Motor.\*Detailed coverage of Switchgear, Protection & Earthing System, Electricity Usage Monitors, Power Factor Correction and Basics of Battery & Its applications.\*Each chapter contains a large number of solved example or objective type's problem which will help the students in problem solving and designing of Electrical Engineering.\*Clear perception of the various problems with a large number of neat, well drawn and illustrative diagrams. \*Simple

Language, easy- to- understand manner. I do hope that the text book in the present form will meet the requirement of the students doing graduation in Electronics & Communication Engineering, Computer Science Engineering, Information Technology, Electronics & Instrumentation Engineering and Electrical & Electronics Engineering. I will appreciate any suggestions from students and faculty members alike so that we can strive to make the text book more

useful in the edition to come.

*Basics of Electrical Engineering for Diploma Engineer* KHANNA PUBLISHING HOUSE

This comprehensive book, in its third edition, continues to provide an in-depth analysis on the fundamental principles of electrical engineering. The exposition of these principles is fully reinforced by many practical problems that illustrate the concepts discussed. Beginning with a precise and quantitative detailing of the basics of

electrical engineering, the text moves on to explain the fundamentals of circuit theory, electrostatic and electromagnetism and further details on the concept of electromechanical energy conversion. The book provides an elaborate and systematic analysis of the working principle, applications and construction of each electrical machine. In addition to circuit responses under steady state conditions, the book contains the chapters on

dynamic responses of networks and analysis of a three-phase circuit. In this third edition, two chapters on Electrical Power System and Domestic Lighting have been added to fulfil the syllabus requirement of various universities. The chapters discuss different methods of generating electrical power, economic consideration and tariff of power system, illumination, light sources

used in lighting systems, conductor size and insulation, lighting accessories used in wiring systems, fuses and MCBs, meter board, main switch and distribution board, earthing methods, types of wiring, wiring system for domestic use and cost estimation of wiring system. Designed as a text for the undergraduate students of almost all branches of

engineering, the book will also be useful to the practising engineers as reference. Key Features • Discusses statements with numerical examples • Includes answers to the numerical problems at the end of the book • Enhances learning of the basic working principles of electrical machines by using a number of supporting examples, review questions and illustrative examples

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