

Basic Electrical Engineering Videos

Are you looking for a simple and understandable introduction to the basics of electrical engineering and electronics? Then you are well advised with this book! As an engineer (M.Eng.) I would like to teach you the basics of electrical engineering and electronics. In summary, this book offers you an easy to understand, intuitively structured and practical introduction to the world of electrical engineering! What is current and what is voltage? What is charge? What is power, what is 1 kWh? How does an electric motor work? What is the difference between direct current and alternating current? This electrical engineering handbook not only answers these questions, but also covers many other topics in depth and detail. In addition, in this compact beginner's guide, you will quickly and easily learn the functions as well as the application of important electronic components such as resistors, diodes, transistors, capacitors and much more. This book offers you a comprehensive yet compact introduction to the basics of electrical engineering and electronics! In addition to important basic terms and principles, you will also learn, for example, how to analyze circuits (Kirchhoff's rules), what a bipolar transistor is, what a MOSFET is, and how a RLC circuit is designed. We will also look at what happens when you place an inductor in a magnetic field and what practical applications these basic principles have in our modern world. We will also do some calculations together and we will learn the mathematical equations behind the basic principles of electrical engineering in each chapter. However, depending on how deep you want to go into the material, you can also just take note of them. This fundamentals book is aimed specifically at anyone who has no prior knowledge of electrical and electronic engineering, or who already has some knowledge but is looking for a practical and understandable guide to electrical engineering. No matter what age you are, what profession you have, whether you are a pupil, student or pensioner. This book is for anyone who wants or needs to learn about electrical engineering and electronics. The aim of this book is to introduce you to how electrical engineering accompanies us in everyday life and the basic principles involved. In addition, you will learn the basics of direct current technology and alternating current technology, their theoretical backgrounds and much more! Develop a basic understanding of electrical engineering and electronics in no time! Therefore, do not hesitate any longer, best take a look at the book and get your copy home as an ebook or paperback! Briefly summarized, you will learn the following in detail in this course: - Basic concepts and basic quantities of electrical engineering - How to analyze and solve electrical engineering circuits - Ohm's law, Ampere's law and Farady's law - Components such as resistor, diode (e.g. LED), transistor, capacitor, transformer, ..., and how they work and what they are used for - The difference between direct current and alternating current, as well as single-phase and multi-phase systems - How does electricity get into the house? Getting to know the power supply system - Direct current and alternating current motors and their structure / mode of operation - Outlook: Renewable energies such as photovoltaics and wind power - and much more! Take a look at the book and get your copy as an ebook or paperback!

Capitalist Nigger is an explosive and jarring indictment of the black race. The book asserts that the Negro race, as naturally endowed as any other, is culpably a non-productive race, a consumer race that depends on other communities for its culture, its language, its feeding and its clothing. Despite enormous natural resources, blacks are economic slaves because they lack the 'devil-may-care' attitude and the 'killer instinct' of the Caucasian, as well as the spider web mentality of the Asian. A Capitalist Nigger must embody ruthlessness in pursuit of excellence in his drive towards achieving the goal of becoming an economic warrior. In putting forward the idea of the Capitalist Nigger, Chika Onyeanyi charts a road to success whereby black economic warriors employ the 'Spider Web Doctrine' – discipline, self-reliance, ruthlessness – to escape from their victim mentality. Born in Nigeria, Chika Onyeanyi is a journalist, editor and former diplomat.

How to Build a Digital Library reviews knowledge and tools to construct and maintain a digital library, regardless of the size or purpose. A resource for individuals, agencies, and institutions wishing to put this powerful tool to work in their burgeoning information treasuries. The Second Edition reflects developments in the field as well as in the Greenstone Digital Library open source software. In Part I, the authors have added an entire new chapter on user groups, user support, collaborative browsing, user contributions, and so on. There is also new material on content-based queries, map-based queries, cross-media queries. There is an increased emphasis placed on multimedia by adding a "digitizing" section to each major media type. A new chapter has also been added on "internationalization," which will address Unicode standards, multi-language interfaces and collections, and issues with non-European languages (Chinese, Hindi, etc.). Part II, the software tools section, has been completely rewritten to reflect the new developments in Greenstone Digital Library Software, an internationally popular open source software tool with a comprehensive graphical facility for creating and maintaining digital libraries. Outlines the history of libraries on both traditional and digital Written for both technical and non-technical audiences and covers the entire spectrum of media, including text, images, audio, video, and related XML standards Web-enhanced with software documentation, color illustrations, full-text index, source code, and more Real-world engineering problems are rarely, if ever, neatly divided into mechanical, electrical, chemical, civil, and other categories. Engineers from all disciplines eventually encounter computer and electronic controls and instrumentation, which require at least a basic knowledge of electrical and other engineering specialties, as well as associated economics, and environmental, political, and social issues. Co-authored by Charles Gross—one of the most well-known and respected professors in the field of electric machines and power engineering—and his world-renowned colleague Thad Roppel, Fundamentals of Electrical Engineering provides an overview of the profession for engineering professionals and students whose specialization lies in areas other than electrical. For instance, civil engineers must contend with commercial electrical service and lighting design issues. Mechanical engineers have to deal with motors in HVAC applications, and chemical engineers are forced to handle problems involving process control. Simple and easy-to-use, yet more than sufficient in rigor and coverage of fundamental concepts, this resource teaches EE fundamentals but omits the typical analytical methods that hold little relevance for the audience. The authors provide many examples to illustrate concepts, as well as homework problems to help readers understand and apply presented material. In many cases, courses for non-electrical engineers, or non-EEs, have presented watered-down classical EE material, resulting in unpopular courses that students hate and senior faculty members understandingly avoid teaching. To remedy this situation—and create more well-rounded practitioners—the authors focus on the true EE needs of non-EEs, as determined through their own teaching experience, as well as significant input from non-EE faculty. The book provides several important contemporary interdisciplinary examples to support this approach. The result is a full-color modern narrative that bridges the various EE and non-EE curricula and serves as a truly relevant course that students and faculty can both enjoy.

Schaum's Outline of Basic Electrical Engineering

Fundamentals of Electronics: Book 2

Electronic Devices And Circuits

AC DVD Set (5-9)

Proceedings of the 2014 International Conference on Mechatronics Engineering and Electrical Engineering (CMEEE 2014), Sanya, Hainan, P.R. China, 17-19 October 2014

This book, Amplifiers: Analysis and Design, is the second of four books of a larger work, Fundamentals of Electronics. It is comprised of four chapters that describe the fundamentals of amplifier performance. Beginning with a review of two-port analysis, the first chapter introduces the modeling of the response of transistors to AC signals. Basic one-transistor amplifiers are extensively discussed. The next chapter expands the discussion to multiple transistor amplifiers. The coverage of simple amplifiers is concluded with a chapter that examines power amplifiers. This discussion defines the limits of small-signal analysis and explores the realm where these simplifying assumptions are no longer valid and distortion becomes present. The final chapter concludes the book with the first of two chapters in Fundamental of Electronics on the significant topic of feedback amplifiers. Fundamentals of Electronics has been designed primarily for use in an upper division course in electronics for electrical engineering students. Typically such a course spans a full academic years consisting of two semesters or three quarters. As such, Amplifiers: Analysis and Design, and two other books, Electronic Devices and Circuit Applications, and Active Filters and Amplifier Frequency Response, form an appropriate body of material for such a course. Secondary applications include the use with Electronic Devices and Circuit Applications in a one-semester electronics course for engineers or as a reference for practicing engineers.

Ketan is a young and smart information technology professional living in Pune. Like any other information technology professional, his heart is torn with doubts and uncertainties about his future. The layoff fear sends shivers down his spine whenever he is alone. But soon, a time comes when he is intrigued by something that makes his heart skip a beat. That marks the beginning of his journey into a future that is full of ambitions, adventure, success, failure, and high-octane drama. During this hair-raising journey, he travels to America, the land he adores for the opportunity, freedom, and comfort it offers. His life takes unexpected turns and testing twists when he is trying to build an identity for himself. Wavy Bob is an interesting and exciting journey everyone should experience at least once. It speaks the language of heart and sings the song of desire. It's a phantasmagoric voyage brimming with waves of joy, despair, and delight. Wavy Bob is a story no one can miss; no one should miss.

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.

It Has Often Been Experienced That Students Are Required To Perform Experiments On Certain Topic Before The Relevant Theory Has Been Taught In The Class. A Laboratory Manual Which, In Addition To A Set Of Instructions For Performing Experiments, Includes Related Theory In Brief Could Help Students Understand Experiments Better.In Response Of Demand From A Large Number Of States For An Appropriate Laboratory Manual In Basic Electricity And Electrical Measurements, The T.T.T.L., Chandigarh, Has Prepared This Manual Which Has Been Tried Out In Various Polytechnics And Improved Based On The Feedback. The Basic Objective Of The Manual Is To Encourage Students To Perform Experiments Independently And Purposefully. The Manual Organises The Information To Enable The Students To Verify Known Concepts And Principles And To Follow Certain Procedures And Practices And Thereby Acquire Relevant Skills.Detailed Instructions For Carrying Out Each Experiment Alongwith Relevant Theory In Brief Have Been Given. The Objectives For Performing An Experiment Have Been Included At The Beginning Of Each Experiment. A List Of Questions Given At The End Of Each Experiment Will Help Students Evaluate His Own Understanding.The Manual Also Includes Guidelines For Students And Teachers For Its Effective Use. An Assessment Proforma Given At The Beginning Of The Manual May Be Used By The Teachers In Evaluating The Students.

A Text-Lab Manual

How to Build a Digital Library

Mechatronics Engineering and Electrical Engineering

The Road To Success – A Spider Web Doctrine

Amazing Feats of Electrical Engineering

This textbook provides comprehensive, in-depth coverage of the fundamental concepts of electrical engineering. It is written from an engineering perspective, with special emphasis on circuit functionality and applications. Reliance on higher-level mathematics and physics, or theoretical proofs has been intentionally limited in order to prioritize the practical aspects of electrical engineering. This text is therefore suitable for a number of introductory circuit courses for other majors such as mechanical, biomedical, aerospace, civil, architecture, petroleum, and industrial engineering. The authors' primary goal is to teach the aspiring engineering student all fundamental tools needed to understand, analyze and design a wide range of practical circuits and systems. Their secondary goal is to provide a comprehensive reference, for both major and non-major students as well as practicing engineers.

In 24 clear and easily accessible lectures, Professor Wolfson combines his academic expertise and his lifelong vocation as an electronics hobbyist to examine how these remarkable devices work, bypassing much of the higher mathematics without sacrificing functional and theoretical understanding. Whether you're an aspiring engineer, an enthusiastic tinkerer, or simply intellectually curious, this course will demystify the behavior and inner circuitry of electronic devices and inspire you to see technology in a whole new light.

This volume includes extended and revised versions of a set of selected papers from the International Conference on Electric and Electronics (EEIC 2011) , held on June 20-22 , 2011, which is jointly organized by Nanchang University, Springer, and IEEE IAS Nanchang Chapter. The objective of EEIC 2011 Volume 2 is to provide a major interdisciplinary forum for the presentation of new approaches from Electrical engineering and controls, to foster integration of the latest developments in scientific research. 133 related topic papers were selected into this volume. All the papers were reviewed by 2 program committee members and selected by the volume editor Prof. Min Zhu. We hope every participant can have a good opportunity to exchange their research ideas and results and to discuss the state of the art in the areas of the Electrical engineering and controls.

1 Elementary Concepts 2 Magnetic Circuits 3 Electromagnetic Induction 4 Single Phase Transformers 5 Electrostatics 6 A C fundamentals 7 Single Phase A C circuits 8 Three Phase A C Circuits 9 D C Circuits Appendix

Basic Concepts of Electrical Engineering

Basics, Components & Circuits Explained for Beginners

Basic Electrical Engineering

Selected Papers from the 2011 International Conference on Electric and Electronics (EEIC 2011) in Nanchang, China on June 20-22, 2011, Volume 2

Electrical Engineering and Control

As the name implies, this course is designed to provide a "Fundamental" approach to Electrical Engineering following the Fundamentals I course. We begin our journey with some basic circuit elements and develop a mathematically motivated approach to linear circuit analysis using Ordinary Differential Equations (ODEs) to discover Convolution, Laplace Transforms, Transfer Functions, and Frequency Filtering. The later lectures will cover variable frequency behavior. The series ends with how circuits behave and are modeled at high frequencies.Our goal with this text is two fold: 1. To provide a more specific, lecture-style approach for formal course documentation. Although large encyclopedic texts are useful as references, one will not be required for this course.2. To dramatically reduce the cost for students and increase the flexibility of future editions by unconventionally self-publishing. The textbook industry has become too expensive for students to afford new books year after year and we feel that students should not have to bear the financial burden in addition to continually rising tuition costs. The low cost will hopefully encourage students to keep this packet as a reference as they professionally progress (rather than sell it back for cash to buy new semester's books!) Funds collected from sales directly help support further development of this packet and the course for future generations. We appreciate your help!

Basic Concepts of Electrical Engineering

The book is a review of essential skills that an entry-level or experienced engineer must be able to demonstrate on a job interview and perform when hired. It will help engineers prepare for interviews by demonstrating application of basic principles to practical problems. Hiring managers will find the book useful because it defines a common ground between the student's academic background and the company's product or technology-specific needs, thereby allowing managers to minimize their risk when making hiring decisions. Ten Essential Skills contains a series of "How to" chapters. Each chapter realizes a goal, such as designing an active filter or designing a discrete servo. The primary value of these chapters, however, is that they apply engineering fundamentals to practical problems. The book is a handy reference for engineers in their first years on the job. Enables recent graduates in engineering to succeed in challenging technical interviews Written in an intuitive, easy-to-follow style for the benefit of busy students and employers Book focuses on the intersection between company-specific knowledge and engineering fundamentals Companion website includes interview practice problems and advanced material

Unlike books currently on the market, this book attempts to satisfy two goals: combine circuits and electronics into a single, unified treatment, and establish a strong connection with the contemporary world of digital systems. It will introduce a new way of looking not only at the treatment of circuits, but also at the treatment of introductory coursework in engineering in general. Using the concept of "abstraction," the book attempts to form a bridge between the world of physics and the world of large complex systems. In particular, it attempts to unify electrical engineering and computer science as the art of creating and exploiting successive abstractions to manage the complexity of building useful electrical systems. Computer systems are simply one type of electrical systems. +Balances circuits theory with practical digital electronics applications. +Illustrates concepts with real devices. +Supports the popular circuits and electronics course on the MIT OpenCourse Ware from which professionals worldwide study this new approach. +Written by two educators well known for their innovative teaching and research and their collaboration with industry. +Focuses on contemporary MOS technology.

Baby Loves Electrical Engineering on Christmas!

Electrical Engineering Fundamentals

Fundamentals of Electrical Engineering

Understanding Circuits

Occupational Outlook Handbook

Students will quickly understand the popularity of this helpful sourcebook--the first edition sold 46,000 copies! The chief emphasis is on solving realistic problems, hundreds of which are included with detailed solutions. This popular study guide concisely yet clearly covers all the areas taught in two-semester survey courses and serves as an ideal review for electrical engineers and others looking for high ratings on the Professional Engineer's Examination.

For close to 30 years, [Basic Electrical Engineering] has been the go-to text for students of Electrical Engineering. Emphasis on concepts and clear mathematical derivations, simple language coupled with systematic development of the subject aided by illustrations makes this text a fundamental read on the subject. Divided into 17 chapters, the book covers all the major topics such as DC Circuits, Units of Work, Power and Energy, Magnetic Circuits, fundamentals of AC Circuits and Electrical Instruments and Electrical Measurements in a straightforward manner for students to understand.

This book is designed based on revised syllabus of JNTU, Hyderabad (AICTE model curriculum) for under-graduate (B.Tech/BE) students of all branches, those who study Basic Electrical Engineering as one of the subject in their curriculum. The primary goal of this book is to establish a firm understanding of the basic laws of Electric Circuits, Network Theorems, Resonance, Three-phase circuits, Transformers, Electrical Machines and Electrical Installation.

Big, brainy science for the littlest listeners. Baby discovers the science behind Christmas lights! Accurate enough to satisfy an expert, yet simple enough for baby, this clever board book explores electricity, circuits, and electrical safety. Beautiful, visually stimulating illustrations complement age-appropriate language to encourage baby's sense of wonder. Parents and caregivers may learn a thing or two as well.

Basic Electricity

Basic Electrical and Electronics Engineering:

An Integrated Course In Electrical Engineering (3rd Edition)

Electrical Engineering | Step by Step

Electrical Engineering Fundamentals II

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.

This book/lecture is intended for a college freshman level class in problem solving, where the particular problems deal with electrical and electronic circuits. It can also be used in a junior/senior level class in high school to teach circuit analysis. The basic problem-solving paradigm used in this book is that of resolution of a problem into its component parts. The reader learns how to take circuits of varying levels of complexity using this paradigm. The problem-solving exercises also familiarize the reader with a number of different circuit components including resistors, capacitors, diodes, transistors, and operational amplifiers and their use in practical circuits. The reader should come away with both an understanding of how to approach complex problems and a "feel" for electrical and electronic circuits.

The 2014 International Conference on Mechatronics Engineering and Electrical Engineering (CMEEE2014) was held October 18-19, 2014 in Sanya, Hainan, China. CMEEE2014 provided a valuable opportunity for researchers, scholars and scientists to exchange their new ideas and application experiences face to face together, to establish business or research

This textbook "Basic Electrical Engineering" is based on the latest syllabus of the Universities, AICTE and Educational Institutes. In this edition, some material of the book has been rewritten to make the presentation easily comprehensible. More illustrative examples mainly from IAS, IES and GATE and other competitive examinations have been added. Various problems with answers have been added to support the text. For quick revision, summary/highlights are given at the end of each chapter. Salient Features: · DC Circuits · AC Circuits · Transformers · Electrical Machines · Power converters · Electrical Installations

Electrical Engineering 101

Capitalist Nigger

Circuit Analysis Laboratory Workbook

English for Electrical Engineering in Higher Education

An earnest attempt has been made in the book 'Basic Concepts of Electrical Engineering' to elucidate the principles and applications of Electrical Engineering and also its importance, so as to evince interest on the topics so that the student gets motivated to study the subject with interest.

A manual on the basic concepts of electrical engineering includes discussions of circuit elements, network theory, digital systems, and feedback control

Attuned to the needs of undergraduate students of engineering in their first year, Basic Electrical Engineering enables them to build a strong foundation in the subject. A large number of real-world examples illustrate the applications of complex theories. The book comprehensively covers all the areas taught in a one-semester course and serves as an ideal study material on the subject.

This workbook integrates theory with the concept of engineering design and teaches troubleshooting and analytical problem-solving skills. It is intended to either accompany or follow a first circuits course, and it assumes no previous experience with breadboarding or other lab equipment. This workbook uses only those components that are traditionally covered in a first circuits course (e.g., voltage sources, resistors, potentiometers, capacitors, and op amps) and gives students clear design goals, requirements, and constraints. Because we are using only components students have already learned how to analyze, they are able to tackle the design exercises, first working through the theory and math, then drawing and simulating their designs, and finally building and testing their designs on a breadboard.

Amplifiers: Analysis and Design

Experiments In Basic Electrical Engineering

Principles Of Electrical Engineering And Electronics

Wavy Bob

Practical Electrical Engineering

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

English for Electrical Engineering in Higher Education Studies The Garnet Education English for Specific Academic Purposes series won the Duke of Edinburgh English Speaking Union English Language Book Award in 2009. English for Electrical Engineering is a skills-based course designed specifically for students of electrical engineering who are about to enter English-medium tertiary level studies. It provides carefully graded practice and progressions in the key academic skills that all students need, such as listening to lectures and speaking in seminars. It also equips students with the specialist electrical engineering language they need to participate successfully within an electrical engineering faculty. Extensive listening exercises come from electrical engineering lectures, and all reading texts are taken from the same field of study. There is also a focus throughout on the key electrical engineering vocabulary that students will need. The Teacher's Book includes: Comprehensive teaching notes on all exercises to help teachers prepare effective lessons Complete answer keys to all exercises Full transcripts of listening exercises Facsimiles of Course Book pages at the appropriate point in each unit Photocopiable resource pages and ideas for additional activities The Garnet English for Specific Academic Purposes series covers a range of academic subjects. All titles present the same skills and vocabulary points. Teachers can therefore deal with a range of ESAP courses at the same time, knowing that each subject title will focus on the same key skills and follow the same structure. Key Features Systematic approach to developing academic skills through relevant content. Focus on receptive skills (reading and listening) to activate productive skills (writing and speaking) in subject area. Eight-page units combine language and academic skills teaching. Vocabulary and academic skills bank in each unit for reference and revision. Audio CDs for further self-study or homework. Ideal coursework for EAP teachers.

Engineers design our modern world. They combine science and technology to create incredible vehicles, structures, and objects. This title examines amazing feats of electrical engineering. Engaging text explores the global positioning system, solar power plants, and self-driving cars. It also examines the engineers who made these projects a reality and traces the history of the discipline. Relevant sidebars, stunning photos, and a glossary aid readers' understanding of the topic. A hands-on project and career-planning chart give readers a sense of what it takes to become an engineer. Additional features include a table of contents, a selected bibliography, source notes, and an index, plus essential facts about each featured feat of engineering. Aligned to Common Core standards and correlated to state standards.

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Understanding Modern Electronics

Ten Essential Skills for Electrical Engineers

Fundamental Theories of Electric Circuit

Everything You Should Have Learned in School...but Probably Didn't

Foundations of Analog and Digital Electronic Circuits