

Lamarsh Introduction To Nuclear Engineering Solutions

For junior- and senior-level courses in Nuclear Engineering. Applying nuclear engineering essentials to the modern world Introduction to Nuclear Engineering , 4th Edition reflects changes in the industry since the 2001 publication of its predecessor. With recent data and information, including expanded discussions about the worldwide nuclear renaissance and the development and construction of advanced plant designs, the text aims to provide students with a modern, high-level introduction to nuclear engineering. The nuclear industry is constantly in flux, and the 4th Edition helps students understand real-world applications of nuclear technology--in the United States and across the globe.

An Introduction to Travel and Tourism is a new activity-based text to cover the GCSE in Travel and Tourism. The text takes a workbook approach to the syllabus and includes many activities to help reinforce learning and understanding. The writing style is appropriate for students at this level. Over one hundred activities are included in the book. They vary from simple tasks to check recall or understanding in terms of more complicated activities requiring research and leading to extended writing, planning, designing or discussion work. Many activities begin with straightforward tasks that can be completed in class and go on to extension activities which can be set as homework. This book presents an overview of the physics of radiation detection and its applications. It covers the origins and properties of different kinds of ionizing radiation, their detection and measurement, and the procedures used to protect people and the environment from their potentially harmful effects. It details the experimental techniques and instrumentation used in different detection systems in a very practical way without sacrificing the physics content. It provides useful formulae and explains methodologies to solve problems related to radiation measurements. With abundance of worked-out examples and end-of-chapter problems, this book enables the reader to understand the underlying physical principles and their applications. Detailed discussions on different detection media, such as gases, liquids, liquefied gases, semiconductors, and scintillators make this book an excellent source of information for students as well as professionals working in related fields. Chapters on statistics, data analysis techniques, software for data analysis, and data acquisition systems provide the reader with necessary skills to design and build practical systems and perform data analysis. * Covers the modern techniques involved in detection and measurement of radiation and the underlying physical principles * Illustrates theoretical and practical details with an abundance of practical, worked-out examples * Provides practice problems at the end of each chapter

Building upon the success of the first edition, the Nuclear Engineering Handbook, Second Edition, provides a comprehensive, up-to-date overview of nuclear power engineering. Consisting of chapters written by leading experts, this volume spans a wide range of topics in the areas of nuclear power reactor design and operation, nuclear fuel cycles, and radiation detection. Plant safety issues are addressed, and the economics of nuclear power generation in the 21st century are presented. The Second Edition also includes full coverage of Generation IV reactor designs, and new information on MRS technologies, small modular reactors, and fast reactors.

An Introduction to Travel and Tourism

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Introduction to Nuclear Reactor Theory

Principles, Practices, and Prospects

Introduction to Nuclear Concepts for Engineers

Classic textbook for an introductory course in nuclear reactor analysis that introduces the nuclear engineering student to the basic scientific principles of nuclear fission chain reactions and lays a foundation for the subsequent application of these principles to the nuclear design and analysis of reactor cores. This text introduces the student to the fundamental principles governing nuclear fission chain reactions in a manner that renders the transition to practical nuclear reactor design methods most natural. The authors stress throughout the very close interplay between the nuclear analysis of a reactor core and those nonnuclear aspects of core analysis, such as thermal-hydraulics or materials studies, which play a major role in determining a reactor design.

In a part of North Africa where, within miles, the backdrop can change dramatically from snow-blasted mountains to wind-scoured dunes live the Berber people of the Atlas Mountains. In the third book of her trilogy on African women, world-renowned photojournalist Margaret Courtney-Clarke examines the difficult lives and remarkable arts of Berber women. As modern times and modern warfare in Algeria, Morocco, and Tunisia have encroached on their centuries-old traditions, Berber women have begun to give up the old ways. Imazighen: The Vanishing Traditions of Berber Women is a record of a quickly disappearing way of life. As in her earlier books, Ndebele: The Art of an African Tribe and African Canvas: The Art of West African Women, Courtney-Clarke succeeds in capturing the spirit of the women by experiencing their world from season to season and by respecting their values and traditions. Through photographs, interviews, and observations, Courtney-Clarke documents the Berber women as they stoically carry water and firewood on their backs for miles of rocky terrain. And she records the beauty they have magically produced in their lives - through their spinning and weaving and their carefully coiled pottery - a metaphor for survival and creativity. Geraldine Brooks, award-winning journalist and an expert on life in the Middle East, accompanied Courtney-Clarke on her last trip to North Africa, and has written moving, thoughtful essays on the struggle of existence among the Berbers. With a glossary of Berber terms and a detailed map of the region, this book is not only a handsomely illustrated volume of the triumph of the arts of the Berber women, but a dramatic record of a people yielding to the pressures of the twentieth century.

This newly published book is intended for dual use as a textbook for students in radiation shielding courses and a reference work for shielding practitioners. It emphasizes the principles behind techniques used in various aspects of shield analysis and presents these principles in many different contexts. This approach is intended to provide a strong base of understanding in order to facilitate use of the large shielding codes that have come to dominate shielding design and analysis. An assumption is made that the reader has an understanding of mathematics through basic calculus and vector analysis as well as a knowledge of the nuclear physics of radioactive decay. For most chapters, problem sets are provided.

Offering the most current and complete introduction to nuclear engineering available, this book contains new information on French, Russian, and Japanese nuclear reactors. All units have been revised to reflect current standards. Includes discussions of new reactor types including the AP600, ABWR, and SBWR as well as an extensive section on non-US design reactors; the nuclear Navy and its impact on the development of nuclear energy; binding energy and such topics as the semi-empirical mass formula and elementary quantum mechanics; and solutions to the diffusion equation and a more general derivation of the point kinetics equation. Topics in reactor safety include a complete discussion of the Chernobyl accident and an updated section on TMI and the use of computer codes in safety analysis. For nuclear engineers.

Effects of Radiation on Materials

Elements Of Thermal Design

Nuclear Principles in Engineering

Thermal Hydraulic Fundamentals, Third Edition

U.S. Nuclear Mythology from Electricity "too Cheap to Meter" to "inherently Safe" Reactors

This expanded, revised, and updated fourth edition of Nuclear Energy maintains the tradition of providing clear and comprehensive coverage of all aspects of the subject, with emphasis on the explanation of trends and developments. As in earlier editions, the book is divided into three parts that achieve a natural flow of ideas: Basic Concepts, including the fundamentals of energy, particle interactions, fission, and fusion; Nuclear Systems, including accelerators, isotope separators, detectors, and nuclear reactors; and Nuclear Energy and Man, covering the many applications of radionuclides, radiation, and reactors, along with a discussion of wastes and weapons. A minimum of mathematical background is required, but there is ample opportunity to learn characteristic numbers through the illustrative calculations and the exercises. An updated Solution Manual is available to the instructor. A new feature to aid the student is a set of some 50 Computer Exercises, using a diskette of personal computer programs in BASIC and spreadsheet, supplied by the author at a nominal cost. The book is of principal value as an introduction to nuclear science and technology for early college students, but can be of benefit to science teachers and lecturers, nuclear utility trainees and engineers in other fields. Since the publication of the bestselling first edition, there have been numerous advances in the field of nuclear science. In medicine, accelerator based teletherapy and electron-beam therapy have become standard. New demands in national security have stimulated major advances in nuclear instrumentation. An ideal introduction to the fundamentals of nuclear science and engineering, this book presents the basic nuclear science needed to understand and quantify an extensive range of nuclear phenomena. New to the Second Edition— A chapter on radiation detection by Douglas McGregor Up-to-date coverage of radiation hazards, reactor designs, and medical applications Flexible organization of material that allows for quick reference This edition also takes an in-depth look at particle accelerators, nuclear fusion reactions and devices, and nuclear technology in medical diagnostics and treatment. In addition, the author discusses applications such as the direct conversion of nuclear energy into electricity. The breadth of coverage is unparalleled, ranging from the theory and design characteristics of nuclear reactors to the identification of biological risks associated with ionizing radiation. All topics are supplemented with extensive nuclear data compilations to perform a wealth of calculations. Providing extensive coverage of physics, nuclear science, and nuclear technology of all types, this up-to-date second edition of Fundamentals of Nuclear Science and Engineering is a key reference for any physicists or engineer. An introductory text for broad areas of nuclear reactor physics Nuclear Reactor Physics and Engineering offers information on analysis, design, control, and operation of nuclear reactors. The author—a noted expert on the topic—explores the fundamentals and presents the mathematical formulations that are grounded in differential equations and linear algebra. The book puts the focus on the use of neutron diffusion theory for the development of techniques for lattice physics and global reactor system analysis. The author also includes recent developments in numerical algorithms, including the Krylov subspace method, and the MATLAB software, including the Simulink toolbox, for efficient studies of steady-state and transient reactor configurations. In addition, nuclear fuel cycle and associated economics analysis are presented, together with the application of modern control theory to reactor operation. This important book: Provides a comprehensive introduction to the fundamental concepts of nuclear reactor physics and engineering Contains information on nuclear reactor kinetics and reactor design analysis Presents illustrative examples to enhance understanding Offers self-contained derivation of ?uid conservation equations Written for undergraduate and graduate students in nuclear engineering and practicing engineers, Nuclear Reactor Physics and Engineering covers the fundamental concepts and tools of nuclear reactor physics and analysis.

Nuclear reactor physics is the core discipline of nuclear engineering. Nuclear reactors now account for a significant portion of the electrical power generated worldwide, and new power reactors with improved fuel cycles are being developed. At the same time, the past few decades have seen an ever-increasing number of industrial, medical, military, and research applications for nuclear reactors. The second edition of this successful comprehensive textbook and reference on basic and advanced nuclear reactor physics has been completely updated, revised and enlarged to include the latest developments.

Nuclear Reactor Physics

Nuclear Fission Reactors

Solutions Manual for Introduction to Nuclear Engineering

Nuclear Reactor Analysis

Dr. Samuel Glasstone, the senior author of the previous editions of this book, was anxious to live until his ninetieth birthday, but passed away in 1986, a few months short of this milestone. I am grateful for the many years of stimulation received during our association, and in preparing this edition have attempted to maintain his approach. Previous editions of this book were intended to serve as a text for students and a reference for practicing engineers. Emphasis was given to the broad perspective, particularly for topics important to reactor design and operation, with basic coverage provided in such supporting areas as neutronics, thermal-hydraulics, and materials. This, the Fourth Edition, was prepared with these same general objectives in mind. However, during the past three decades, the nuclear industry and university educational programs have matured considerably, presenting some challenges in meeting the objectives of this book. Nuclear power reactors have become much more complex, with an accompanying growth in supporting technology. University programs now offer separate courses covering such basic topics as reactor physics, thermal hydraulics, and materials. Finally, the general availability of inexpensive xv xvi Preface powerful micro-and minicomputers has transformed design and analysis procedures so that sophisticated methods are now commonly used instead of earlier, more approximate approaches.

Have you ever wondered how a nuclear power station works? This lively book will answer that question. It'll take you on a journey from

the science behind nuclear reactors, through their start-up, operation and shutdown. Along the way it covers a bit of the engineering, reactor history, different kinds of reactors and what can go wrong with them. Much of this is seen from the viewpoint of a trainee operator on a Pressurised Water Reactor - the most common type of nuclear reactor in the world. Colin Tucker has spent the last thirty years keeping reactors safe. Join him on a tour that is the next best thing to driving a nuclear reactor yourself!

NUCLEAR ENGINEERING FUNDAMENTALS is the most modern, up-to-date, and reader friendly nuclear engineering textbook on the market today. It provides a thoroughly modern alternative to classical nuclear engineering textbooks that have not been updated over the last 20 years. Printed in full color, it conveys a sense of awe and wonder to anyone interested in the field of nuclear energy. It discusses nuclear reactor design, nuclear fuel cycles, reactor thermal-hydraulics, reactor operation, reactor safety, radiation detection and protection, and the interaction of radiation with matter. It presents an in-depth introduction to the science of nuclear power, nuclear energy production, the nuclear chain reaction, nuclear cross sections, radioactivity, and radiation transport. All major types of reactors are introduced and discussed, and the role of internet tools in their analysis and design is explored. Reactor safety and reactor containment systems are explored as well. To convey the evolution of nuclear science and engineering, historical figures and their contributions to evolution of the nuclear power industry are explored. Numerous examples are provided throughout the text, and are brought to life through life-like portraits, photographs, and colorful illustrations. The text follows a well-structured pedagogical approach, and provides a wide range of student learning features not available in other textbooks including useful equations, numerous worked examples, and lists of key web resources. As a bonus, a complete Solutions Manual and .PDF slides of all figures are available to qualified instructors who adopt the text. More than any other fundamentals book in a generation, it is student-friendly, and truly impressive in its design and its scope. It can be used for a one semester, a two semester, or a three semester course in the fundamentals of nuclear power. It can also serve as a great reference book for practicing nuclear scientists and engineers. To date, it has achieved the highest overall satisfaction of any mainstream nuclear engineering textbook available on the market today.

This second edition represents an extensive revision of the first edition, - though the motivation for the book and the intended audiences, as described in the previous preface, remain the same. The overall length has been increased substantially, with revised or expanded discussions of a number of topics, - cluding Yucca Mountain repository plans, new reactor designs, health effects of radiation, costs of electricity, and dangers from terrorism and weapons proliferation. The overall status of nuclear power has changed rather little over the past eight years. Nuclear reactor construction remains at a very low ebb in much of the world, with the exception of Asia, while nuclear power's share of the electricity supply continues to be about 75% in France and 20% in the United States.

However, there are signs of a heightened interest in considering possible nuclear growth. In the late 1990s, the U. S. Department of Energy began new programs to stimulate research and planning for future reactors, and many candidate designs are now contending—at least on paper—to be the next generation leaders. Outside the United States, the commercial development of the Pebble Bed Modular Reactor is being pursued in South Africa, a French- German consortium has won an order from Finland for the long-planned EPR (European Pressurized Water Reactor), and new reactors have been built or planned in Asia. In an unanticipated positive development for nuclear energy, the capacity factor of U. S. reactors has increased dramatically in recent years, and most operating reactors now appear headed for 20-year license renewals.

Radiation Shielding

Outlines and Highlights for Introduction to Nuclear Engineering by Lamarsh and Baratta, ISBN

Nuclear Energy

Introduction to Nuclear Power

Nuclear Systems Volume I

Fundamental of Nuclear Engineering is derived from over 25 years of teaching undergraduate and graduate courses on nuclear engineering. The material has been extensively class tested and provides the most comprehensive textbook and reference on the fundamentals of nuclear engineering. It includes a broad range of important areas in the nuclear engineering field; nuclear and atomic theory; nuclear reactor physics, design, control/dynamics, safety and thermal-hydraulics; nuclear fuel engineering; and health physics/radiation protection. It also includes the latest information that is missing in traditional texts, such as space radiation. The aim of the book is to provide a source for upper level undergraduate and graduate students studying nuclear engineering.

Nuclear Systems, Volume I: Thermal Hydraulic Fundamentals, Third Edition, provides an in-depth introduction to nuclear power, focusing on thermal hydraulic design and analysis of the nuclear core and other key nuclear plant components. The authors stress the integration of fluid flow and heat transfer as applied to all power reactor types and energy source distribution. They cover nuclear reactor concepts and systems, including GEN III+, GEN IV, and SMR reactors and new power cycles. The text includes new chapter examples and problems using concept parameters, full-color text and art, computer programs, figure slides, and a solutions manual. FEATURES
Rigorous coverage of nuclear power generation fundamentals Description and analysis of the latest nuclear power plant designs and technologies Extensive examples in each chapter to illustrate the analysis methods which have been presented New full-color art and text features to enhance the presentation of topics Integration of fluid flow and heat transfer as applied to single- and two-phase coolants Readers will develop the knowledge and design skills needed to improve the next generation of nuclear reactors.

The authors of this text aim to educate the reader on nuclear power and its future potential. It focuses on nuclear accidents such as Chernobyl and Three Mile Island, and their consequences, with the understanding that there are safety lessons to be learned if nuclear power generation is going to be expanded to meet our growing energy needs.

INTRODUCTION TO NUCLEAR REACTOR PHYSICS is the most comprehensive, modern and readable textbook for this course/module. It explains reactors, fuel cycles, radioisotopes, radioactive materials, design, and operation. Chain reaction and fission reactor concepts are presented, plus advanced coverage including neutron diffusion theory. The diffusion equation, Fisk's Law, and steady state/time-dependent reactor behavior. Numerical and analytical solutions are also covered. The text has full color illustrations throughout, and a wide range of student learning

features.

Nuclear Reactor Theory

Nuclear Systems

The Physics of Nuclear Reactors

Reactor Systems Engineering

Nuclear Reactor Engineering

This book provides critical analysis and historical evidence to refute the claims of the nuclear power industry that nuclear power can alleviate the build-up of greenhouse gases and reduce U.S. dependence on foreign oil. It also reveals the hazards of the proliferation of nuclear weapons from the growing quantities of plutonium generated by existing nuclear power plants throughout the world. Prepared under the auspices of a scientifically respected institute, "The Nuclear Power Deception" exposes the flagrant misrepresentation of nuclear power as "too cheap to meter" and environmentally benign and safe by government and industry officials in the 1940s and 1950s when they had ample evidence to the contrary. Instead they suppressed the truth, much of which is presented in this book. Essential background reading for students, teachers, peace and environmentalists, and others concerned about the threat nuclear power continues to pose for the future of humankind.

The text is designed for junior and senior level Nuclear Engineering students. The third edition of this highly respected text is the most current and complete introduction to nuclear engineering available. Introduction to Nuclear Engineering has been thoroughly updated with new information on French, Russian, and Japanese nuclear reactors. All units have been revised to reflect current standards. In addition to the numerous end-of-chapter problems, computer exercises have been added. This textbook presents students with nuclear concepts, models, vocabulary, and problem-solving skills that are essential for success in subsequent course work in reactor theory and engineering. Designed for a sophomore science or engineering student with a firm foundation in the basics of college physics and mathematics through ordinary differential equations, Maxwell's equations, and addresses concepts in modern physics (special relativity, quantum concepts, etc.) and develops those concepts as needed for the presentation of the text material. The text objective is to present fundamental nuclear principles in a clear and understandable, physically sound manner.

Never HIGHLIGHT a Book Again! Virtually all of the testable terms, concepts, persons, places, and events from the text are included. Cram101 Just the FACTS101 studyguides give all of the outlines, highlights, notes, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanys: 9780201824988 .

Nuclear Reactor Physics and Engineering

Nuclear Engineering Handbook

Fundamentals of Nuclear Reactor Physics

NUCLEAR PHYSICS: PRINCIPLES AND APPLICATIONS

Introduction to Nuclear Engineering

This edition builds on earlier traditions in providing broad subject-area coverage, application of theory to practical aspects of commercial nuclear power, and use of instructional objectives. Like the first edition, it focuses on what distinguishes nuclear engineering from the other engineering disciplines. However, this edition includes a major reorganization and overall update of descriptions of reactor designs and fuel-cycle steps, and more emphasis on reactor safety, especially related to technical and management lessons learned from the TMI-2 and Chernobyl - 4 accidents.

This volume presents papers delivered at the First International Conference on Difference Equations (FICDE) held at Trinity University in San Antonio, Texas, USA. During the course of this meeting, 66 papers were presented by participants from across the United States and more than 20 other countries. Topics of papers include chaotic dynamics, mathematical biology, robust control theory, stochastic differential systems, dynamics of satellite and rocket systems, theory of orthogonal polynomials, and epidemiological modelling. Many current expository papers will be of value to students and researchers in the mathematical and physical sciences.

Introduction to Nuclear Engineering Addison Wesley Publishing Company

This book is intended to provide an introduction to the basic principles of nuclear fission reactors for advanced undergraduate or graduate students of physics and engineering. The presentation is also suitable for physicists or engineers who are entering the nuclear power field without previous experience with nuclear reactors. No previous background knowledge is required beyond that typically acquired in the first two years of an undergraduate program in physics or engineering. Throughout, the emphasis is on explaining why particular reactor systems have evolved in the way they have, without going into great detail about reactor physics or methods of design analysis, which are already covered in a number of excellent specialist texts. The first two chapters serve as an introduction to the basic physics of the atom and the nucleus and to nuclear fission and the nuclear chain reaction. Chapter 3 deals with the fundamentals of nuclear reactor theory, covering neutron slowing down and the spatial dependence of the neutron flux in the reactor, based on the solution of the diffusion equations. The chapter includes a major section on reactor kinetics and control, including temperature and void coefficients and xenon poisoning effects in power reactors. Chapter 4 describes various aspects of fuel management and fuel cycles, while Chapter 5 considers materials problems for fuel and other constituents of the reactor. The processes of heat generation and removal are covered in Chapter 6.

A Practical Perspective

Diffusion of Thermal Neutrons

The Nuclear Power Deception

17th International Symposium

Introduction to Nuclear Reactor Physics

Market_Desc: This text is aimed at undergraduates in science and engineering who require knowledge of the fundamental principles of nuclear physics and its applications. Special Features:

The book offers numerous practical examples and problems to enhance the material. It avoids complex and extensive mathematical treatments. It covers the basic theory but emphasizes the applications About The Book: This title provides the latest information on applications of Nuclear Physics. Written from an experimental point of view this text is broadly divided into two parts, firstly a general introduction to Nuclear Physics and secondly its applications. The book also includes chapters on practical examples and problems. It also contains hints to solving problems which are included in the appendix.

Fundamentals of Nuclear Reactor Physics offers a one-semester treatment of the essentials of how the fission nuclear reactor works, the various approaches to the design of reactors, and their safe and efficient operation . It provides a clear, general overview of atomic physics from the standpoint of reactor functionality and design, including the sequence of fission reactions and their energy release. It provides in-depth discussion of neutron reactions, including neutron kinetics and the neutron energy spectrum, as well as neutron spatial distribution. It includes ample worked-out examples and over 100 end-of-chapter problems. Engineering students will find this applications-oriented approach, with many worked-out examples, more accessible and more meaningful as they aspire to become future nuclear engineers. A clear, general overview of atomic physics from the standpoint of reactor functionality and design, including the sequence of fission reactions and their energy release In-depth discussion of neutron reactions, including neutron kinetics and the neutron energy spectrum, as well as neutron spatial distribution Ample worked-out examples and over 100 end-of-chapter problems Full Solutions Manual

This comprehensive volume offers readers a progressive and highly detailed introduction to the complex behavior of neutrons in general, and in the context of nuclear power generation. A compendium and handbook for nuclear engineers, a source of teaching material for academic lecturers as well as a graduate text for advanced students and other non-experts wishing to enter this field, it is based on the author's teaching and research experience and his recognized expertise in nuclear safety. After recapping a number of points in nuclear physics, placing the theoretical notions in their historical context, the book successively reveals the latest quantitative theories concerning:

- The slowing-down of neutrons in matter
- The charged particles and electromagnetic rays
- The calculation scheme, especially the simplification hypothesis
- The concept of criticality based on chain reactions
- The theory of homogeneous and heterogeneous reactors
- The problem of self-shielding
- The theory of the nuclear reflector, a subject largely ignored in literature
- The computational methods in transport and diffusion theories

Complemented by more than 400 bibliographical references, some of which are commented and annotated, and augmented by an appendix on the history of reactor physics at EDF (Electricité De France), this book is the most comprehensive and up-to-date introduction to and reference resource in neutronics and reactor theory.

Nuclear Energy is one of the most popular texts ever published on basic nuclear physics, systems, and applications of nuclear energy. This newest edition continues the tradition of offering a holistic treatment of everything the undergraduate engineering student needs to know in a clear and accessible way. Presented is a comprehensive overview of radioactivity, radiation protection, nuclear reactors, waste disposal, and nuclear medicine.

- New coverage on nuclear safety concerns following 9/11, including radiation and terrorism, nuclear plant security, and use of nuclear techniques to detect weapons materials
- New facts on nuclear waste management, including the Yucca Mountain repository
- New developments in the use of nuclear-powered systems for generating cheap and abundant hydrogen from water using nuclear technology
- New information on prospects for new nuclear power reactors and their applications for electricity and desalination
- New end-of-chapter Exercises and Answers, lists of Internet resources, and updated references.
- New instructor web site including Solutions to Exercises and PowerPoint slides
- New student web site containing computer programs for use with Computer Exercises

Analytical Benchmarks for Nuclear Engineering Applications

Nuclear-reactor Analysis

An Introduction to the Concepts, Systems, and Applications of Nuclear Processes

Case Studies in Neutron Transport Theory

Proceedings of the First International Conference on Difference Equations

Nuclear engineering plays an important role in various industrial, health care, and energy processes. Modern physics has generated its fundamental principles. A growing number of students and practicing engineers need updated material to access the technical language and content of nuclear principles. "Nuclear Principles in Engineering, Second Edition" is written for students, engineers, physicians and scientists who need up-to-date information in basic nuclear concepts and calculation methods using numerous examples and illustrative computer application areas. This new edition features a modern graphical interpretation of the phenomena described in the book fused with the results from research and new applications of nuclear engineering, including but not limited to nuclear engineering, power engineering, homeland security, health physics, radiation treatment and imaging, radiation shielding systems, aerospace and propulsion engineering, and power production propulsion.

Nuclear Engineering Fundamentals

Fundamentals of Nuclear Engineering

Physics and Engineering of Radiation Detection

Fundamentals of Nuclear Science and Engineering Second Edition

How to Drive a Nuclear Reactor