1. Record Nr. UNISALENTO991002182329707536

Titolo	Nonlinear operators and the calculus of variations [e-book] : summer school held in Bruxelles 8–19 september 1975 / edited by Jean Pierre Gossez ... [et al.]
Pubbl/distr/stampa	Berlin : Springer, 1976
ISBN	9783540380757
Descrizione fisica	1 online resource (237 p.)
Collana	Lecture Notes in Mathematics, 0075-8434 ; 543
Altri autori (Persone)	Gossez, Jean Pierre
Disciplina	510
Soggetti	Mathematics
Lingua di pubblicazione	Inglese
Formato	Risorsa elettronica
Livello bibliografico	Monografia

2. Record Nr. UNINA9910958637103321

Autore	Glasstone Samuel
Titolo	Nuclear Reactor Engineering : Reactor Systems Engineering / / by Samuel Glasstone, Alexander Sesonske
Pubbl/distr/stampa	New York, NY : , : Springer US : , : Imprint : Springer, , 1994
ISBN	1-4615-2083-5
Edizione	[4th ed. 1994.]
Descrizione fisica	1 online resource (XVI, 381 p.)
Disciplina	621.3
Soggetti	Electrical engineering Mechanical engineering Biotechnology Nuclear physics Electrical and Electronic Engineering Mechanical Engineering Nuclear Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	8 The Systems Concept, Design Decisions, and Information Tools -- Systems -- The Computer as a Decision Tool -- Information as a Decision Tool -- 9 Energy Transport -- Heat Sources in Reactor Systems -- Heat-Transmission Principles -- Heat Transfer to Ordinary Fluids -- Heat Transfer to Liquid Metals -- Boiling Heat Transfer -- Core Fluid Flow -- Subchannel Analysis and System Codes -- Core Design Constraints -- 10 Reactor Fuel Management and Energy Cost Considerations -- Pre-Reactor Fuel Operations -- In-Core Management -- Pressurized Water Reactor Core Management -- Boiling Water Reactor Core Management -- Nuclear Fuel Utilization -- Nuclear Energy Costs -- Nuclear Material Safeguards -- Nuclear Criticality Safety -- 11 Environmental Effects of Nuclear Power and Waste Management -- Radiation Exposure Pathways -- The Spent-Fuel Management Challenge -- On-Site Spent-Fuel Storage -- Characteristics of Spent Fuel -- Storage and Disposal Options -- Migration of Waste Radionuclides -- The Reprocessing Option -- Reactor Radwaste

Management -- Waste Heat Management -- 12 Nuclear Reactor Safety and Regulation -- Accident Prevention -- Engineered Safety Features -- Abnormal Event Analysis -- Severe Accidents -- The Source Term -- Safety Modeling Methods -- Siting Requirements -- Accident Experience and Analysis -- Severe Accident Management -- Reliability and Risk Assessment -- Licensing and Regulation of Nuclear Plants -- Nuclear Reactor Safeguards -- 13 Power Reactor Systems -- Present Pressurized-Water Reactors -- Evolutionary Pressurized-Water Reactors -- Present Boiling-Water Reactors -- Evolutionary Boiling-Water Reactors -- Heavy-Water-Moderated Reactors -- 14 Plant Operations -- Plant Operational Strategy -- Plant Control -- Expert Systems and Neural Networks in Plant Operations -- Plant Maintenance -- Regulatory Aspects ofOperations -- Reactor Decommissioning -- 15 Advanced Plants and the Future -- The AP600 -- Simplified Boiling-Water Reactor -- Modular HTGR -- Advanced Liquid-Metal-Cooled Reactor -- Commercialization Issues -- The Future.

Sommario/riassunto

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 oper- ation, 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 objec- tives of this book. Nuclear power reactors have become much more complex, with an ac- companying 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.