This book provides a comprehensive review of the design characteristics of small modular reactors and the development and deployment of this emerging trend in nuclear power.


**KEY FEATURES**

- Gives an overview of small modular reactor technology
- Reviews the design characteristics of integral pressurized water reactors and focuses on reactor core and fuel technologies, key reactor system components, instrumentation and control, human-system interfaces and safety
- Considers the economics, financing, licensing, construction methods and hybrid energy systems of small modular reactors
- Describes SMR development activities worldwide, and concludes with a discussion of how SMR deployment can contribute to the growth of developing countries

**DESCRIPTION**

Small modular reactors (SMRs) are an advanced, safe type of nuclear reactor technology that are suitable for small and medium sized applications including both power and heat generation. In particular, their use as individual units or in combination to scale-up capacity offer benefits in terms of siting, installation, operation, lifecycle and economics in comparison to the development of larger nuclear plant for centralised electricity power grids. Interest has increased in the research and development of SMRs for both developing countries as well as such additional cogeneration options as industrial/chemical process heat, desalination and district heating, and hydrogen production. This book reviews key issues in their development as well as international R&D in the field.

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TABLE OF CONTENTS

Preface

Part I Fundamentals of small modular nuclear reactors (SMRs)

1 Small modular reactors (SMRs) for producing nuclear energy: an introduction
   N. Todreas, Massachusetts Institute of Technology, USA
2 Small modular reactors (SMRs) for producing nuclear energy: international developments
   D. T. Ingersoll, NuScale Power LLC, USA
3 Integral pressurized water reactors (iPWRs) for producing nuclear energy: a new paradigm
   M. D. Carelli, formerly of Westinghouse Electric Co., USA

Part II Small modular nuclear reactor (SMR) technologies

4 Core and fuel technologies in small modular reactors (SMRs)
   A. Worrall, Oak Ridge National Laboratory, USA
5 Key reactor system components in integral pressurized water reactors (iPWRs)
   R. J. Belles, Oak Ridge National Laboratory, USA
6 Instrumentation and control technologies for small modular reactors (SMRs)
   D. Cummins, Rock Creek Technologies, LLC., USA
7 Human-system interfaces (HSIs) in small modular reactors (SMRs)
   J. Hugo, Idaho National Laboratory, USA
8 Safety of integral pressurized water reactors (iPWRs)
   B. Petrovic, Georgia Institute of Technology, USA
9 Proliferation resistance and physical protection in small modular reactors (SMRs)
   R. A. Bari, Brookhaven National Laboratory, USA

Part III Implementation and applications

10 Economics and financing of small modular reactors (SMRs)
   S. Boarin, M. Mancini and M. Ricotti, Politecnico di Milano, Italy and G. Locatelli, University of Lincoln, UK
11 Licensing of small modular reactors (SMRs)
   R. L. Black, Consultant, USA
12 Construction methods for small modular reactors (SMRs)
   N. Town and S. Lawler, Rolls-Royce plc, UK
13 Hybrid energy systems using small modular reactors (SMRs)
   S. Bragg-Sitton, Idaho National Laboratory, USA

Part IV International R&D and deployment

14 Small modular reactors (SMRs): the case of the USA
   G. Mays, Oak Ridge National Laboratory, USA
15 Small modular reactors (SMRs): the case of the Republic of Korea
   S. Choi, Korea Atomic Energy Research Institute, Republic of Korea
16 Small modular reactors (SMRs): the case of Argentina
   D. F. Delmaestro, Centro Atómico Bariloche (CNEA), Argentina
17 Small modular reactors (SMRs): the case of Russia
   V. Kuznetsov, Consultant, Austria
18 Small modular reactors (SMRs): the case of China
   D. Song, Nuclear Power Institute of China, People’s Republic of China
19 Small modular reactors (SMRs): the case of Japan
   T. Okubo, Japan Atomic Energy Agency, Japan
20 Small modular reactors (SMRs): the case of developing countries
   D. Goodman, Consultant, USA