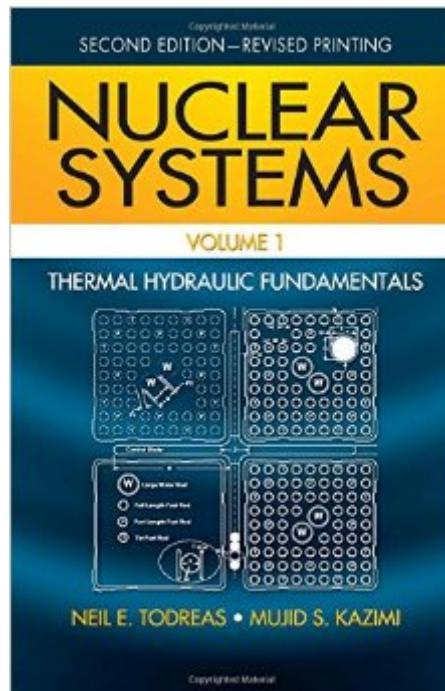


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# Nuclear Systems Volume I: Thermal Hydraulic Fundamentals, Second Edition



## Synopsis

Nuclear power is in the midst of a generational changeâ with new reactor designs, plant subsystems, fuel concepts, and other information that must be explained and exploredâ and after the 2011 Japan disaster, nuclear reactor technologies are, of course, front and center in the public eye. Written by leading experts from MIT, Nuclear Systems Volume I: Thermal Hydraulic Fundamentals, Second Edition provides an in-depth introduction to nuclear power, with a focus on thermal hydraulic design and analysis of the nuclear core. A close examination of new developments in nuclear systems, this book will help readersâ particularly studentsâ to develop the knowledge and design skills required to improve the next generation of nuclear reactors. Tables for Computation available for download at [www.crcpress.com/product/ISBN/9781439808870](http://www.crcpress.com/product/ISBN/9781439808870) Intended for experts and senior undergraduate/early-stage graduate students, the material addresses: Different types of reactors Core and plant performance measures Fission energy generation and deposition Conservation equations Thermodynamics Fluid flow Heat transfer Imparting a wealth of knowledge, including their longtime experience with the safety aspects of nuclear installations, authors Todreas and Kazimi stress the integration of fluid flow and heat transfer, various reactor types, and energy source distribution. They cover recent nuclear reactor concepts and systems, including Generation III+ and IV reactors, as well as new power cycles. The book features new chapter problems and examples using concept parameters, and a solutions manual is available with qualifying course adoption.

## Book Information

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## Customer Reviews

Tough subject to make a quality text for since it is a true mashup of many areas of engineering science. There are some nice diagrams and figures. It is an overall good piece to have on the shelf for a nuclear engineer.

A very comprehensive text covering Nuclear Reactor Thermohydraulics. Cover Thermodynamics of nuclear power plants, and both single phase and two phase heat transfer and fluid flow. A excellent text by an expert and well respected nuclear engineering Professor!

I found out there was another copy with more corrections (that includes red dot on the back). Even though I was sold this erroneous version without any prior information on different versions.

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