1. Record Nr. UNINA9910583384303321

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Titolo	Thermal-hydraulics of water cooled nuclear reactors / / Francesco D'Auria
Pubbl/distr/stampa	London, [England] : , : Academic Press, , 2017 ©2017
ISBN	0-08-100679-9 0-08-100662-4
Edizione	[1st edition]
Descrizione fisica	1 online resource (1,121 pages) : illustrations
Disciplina	539.7213
Soggetti	Water cooled reactors Thermal hydraulics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	Thermal Hydraulics of Water-Cooled Nuclear Reactors reviews flow and heat transfer phenomena in nuclear systems and examines the critical contribution of this analysis to nuclear technology development. With a strong focus on system thermal hydraulics (SYS TH), the book provides a detailed, yet approachable, presentation of current approaches to reactor thermal hydraulic analysis, also considering the importance of this discipline for the design and operation of safe and efficient water-cooled and moderated reactors. Part One presents the background to nuclear thermal hydraulics, starting with a historical perspective, defining key terms, and considering thermal hydraulics requirements in nuclear technology. Part Two addresses the principles of thermodynamics and relevant target phenomena in nuclear systems. Next, the book focuses on nuclear thermal hydraulics modeling, covering the key areas of heat transfer and pressure drops, then moving on to an introduction to SYS TH and computational fluid dynamics codes. The final part of the book reviews the application of thermal hydraulics in nuclear technology, with chapters on V&V and uncertainty in SYS TH codes, the BEPU approach, and applications to new reactor design, plant lifetime extension, and accident analysis.

	This book is a valuable resource for academics, graduate students, and professionals studying the thermal hydraulic analysis of nuclear power plants and using SYS TH to demonstrate their safety and acceptability. Contains a systematic and comprehensive review of current approaches to the thermal-hydraulic analysis of water-cooled and moderated nuclear reactors Clearly presents the relationship between system level (top-down analysis) and component level phenomenology (bottom-up analysis) Provides a strong focus on nuclear system thermal hydraulic (SYS TH) codes Presents detailed coverage of the applications of thermal-hydraulics to demonstrate the safety and acceptability of nuclear power plants

2. Record Nr. UNINA9910961445603321

Titolo	Artificial Intelligence : Reflections in Philosophy, Theology, and the Social Sciences / IM Ing. DI Dragos-Cristian Vasilescu, Michael Filzmoser, PhD, Diana Löffler, Andreas Theodorou, Johannes Grössl, Jan G. Michel, Vanessa Schäffner, Stefan Reining, Julia Alessandra Harzheim, Rebecca Davnall, Kilian Karger, Leonie Seng, Lukas Brand, Agnieszka Wykowska, Daniel Neumann, Walther Ch. Zimmerli, Scarlet Schaffrath, David J. Gunkel, Carmen Krämer, Astrid Marieke Rosenthal-von der Pütten, Benedikt Paul Göcke, Andreas Bischof, Arne Maibaum, Gábor L. Ambrus, Tobias Müller, Benedikt Paul Goecke, Astrid Marieke Rosenthal-von der Pütten
Pubbl/distr/stampa	Paderborn, : Brill | mentis, 2020
ISBN	3-95743-748-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (XVIII + 404 pages)
Disciplina	100
Soggetti	Superintelligenz Autonomes Fahren Bewusstsein Big data Robotik super intelligence autonomous driving consciousness robotics
Lingua di pubblicazione	Inglese

Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	This book discusses major issues of the current AI debate from the perspectives of philosophy, theology, and the social sciences: Can AI have a consciousness? Is superintelligence possible and probable? How does AI change individual and social life? Can there be artificial persons? What influence does AI have on religious worldviews? In Western societies, we are surrounded by artificially intelligent systems. Most of these systems are embedded in online platforms. But embodiments of AI, be it by voice or by actual physical embodiment, give artificially intelligent systems another dimension in terms of their impact on how we perceive these systems, how they shape our communication with them and with fellow humans and how we live and work together. AI in any form gives a new twist to the big questions that humanity has concerned herself with for centuries: What is consciousness? How should we treat each other - what is right and what is wrong? How do our creations change the world we are living in? Which challenges do we have to face in the future?