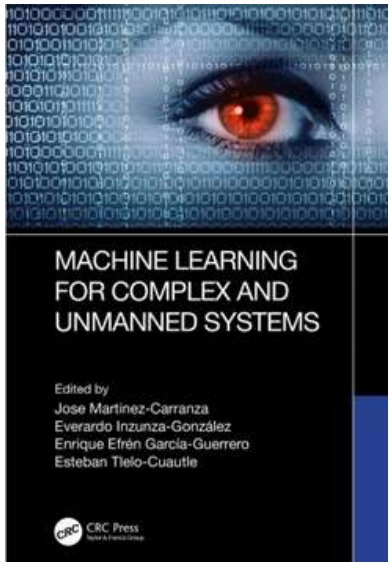
Buku Baharu/ New Books

April 2026

PERPUSTAKAAN LINGKUNGAN KEDUA



Title : **Machine learning for complex and unmanned systems**
Editor : **Enrique Efren Garcia-Guerrero, Esteban Tlelo-Cuautle, Everardo Inzunza-Gonzalez, Jose Martinez-Carranza**
ISBN : **9781032472249**
Publisher : **CRC Press**
Year : **2024**
Call Number : **TJ217.5.M333 3**

Abstract

This book highlights applications that include machine learning methods to enhance new developments in complex and unmanned systems. The contents are organized from the applications requiring few methods to the ones combining different methods and discussing their development and hardware/software implementation. The book includes two parts: the first one collects machine learning applications in complex systems, mainly discussing developments highlighting their modeling and simulation, and hardware implementation. The second part collects applications of machine learning in unmanned systems including optimization and case studies in submarines, drones, and robots.

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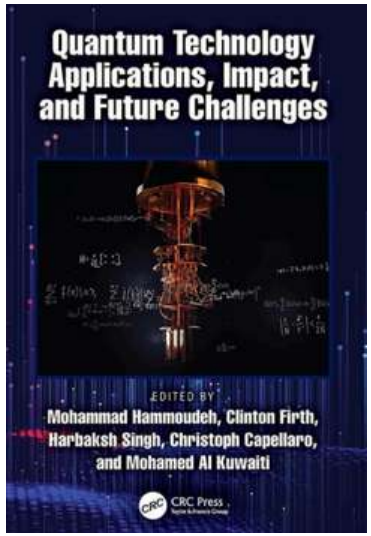

Title : **Quantum technology applications, impact and future challenges**
Editor : **Christoph Capellaro, Clinton M. Firth, Harbaksh Singh, Mohamed Al Kuwaiti, Mohammad Hammoudeh**
ISBN : **9781032883304**
Publisher : **CRC Press**
Year : **2025**
Call Number : **QC174.12.Q364 3**

Abstract

This book presents a comprehensive exploration of quantum computing, exploring its wide-ranging applications across industries, elucidating its transformative impact on diverse sectors, and addressing the forthcoming challenges and future directions within this rapidly evolving field.

Quantum Technology Applications, Impact, and Future Challenges explores the current state of quantum hardware and software, providing readers with a clear understanding of the challenges and opportunities posed by this technology. It also examines how quantum computing is being used today in industries such as energy, finance, healthcare, and logistics, offering real-world examples of the potential impact of this technology. Readers will gain an understanding of quantum computing's potential applications and its profound implications for businesses, individuals, and society at large.

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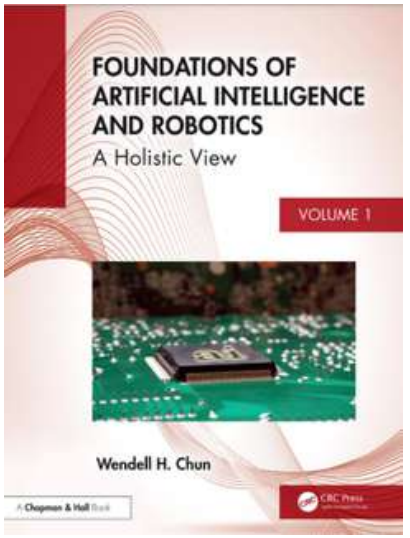

Title : **Foundations of artificial intelligence and robotics : a holistic view**
Author : **Wendell H. Chun**
ISBN : **9781032673110**
Publisher : **CRC Press**
Year : **2025**
Call Number : **Q335.C488 3**

Abstract

Artificial intelligence (AI) is a complicated science that combines philosophy, cognitive psychology, neuroscience, mathematics and logic (logicism), economics, computer science, computability, and software. Meanwhile, robotics is an engineering field that compliments AI. There can be situations where AI can function without a robot (e.g., Turing Test) and robotics without AI (e.g., teleoperation), but in many cases, each technology requires each other to exhibit a complete system: having "smart" robots and AI being able to control its interactions (i.e., effectors) with its environment. This book provides a complete history of computing, AI, and robotics from its early development to state-of-the-art technology, providing a roadmap of these complicated and constantly evolving subjects.

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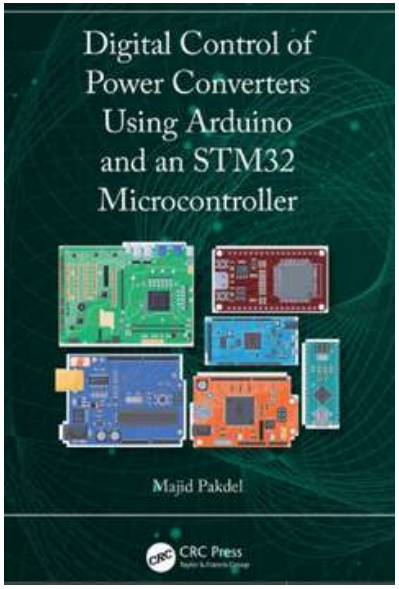

Title : **Digital control of power converters using arduino and an STM32 microcontroller**
Author : **Majid Pakdel**
ISBN : **9781032890388**
Publisher : **CRC Press**
Year : **2025**
Call Number : **QA76.9.A43.P335 3**

Abstract

Through this book, Majid Pakdel covers a range of topics including digital control theory, switching converters theory, the design and implementation of control algorithms (such as proportional–integral–derivative and advanced digital control techniques), programming of STM32 microcontrollers, and interfacing with power electronics components. He also provides step-by-step tutorials and code examples to help readers understand and implement the concepts in their own projects. Readers will gain a deep understanding of digital control techniques in power converters, learn how to program STM32 microcontrollers for control applications, and be able to design and implement their own digital control algorithms in power electronics systems. The practical examples provided in the book will help readers apply the knowledge gained to real-world projects and improve their skills in developing digital control systems.

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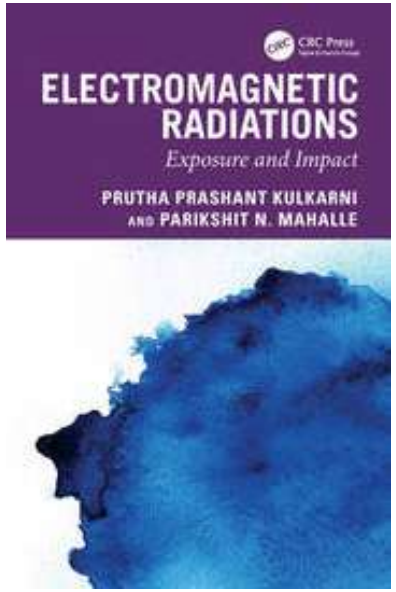

Title : **Electromagnetic radiations : exposure, and impact**
Author : **Prutha Prashant Kulkarni and Parikshit N. Mahalle**
ISBN : **9781032715667**
Publisher : **CRC Press**
Year : **2025**
Call Number : **QC665.K835 3**

Abstract

"The book delivers an understanding of emission theory and its effects on different strata of life. It contains seven chapters including probable remedial measures and solutions to increase reduced radiation life expectancy. The text explains important topics such as the compatibility of the human body and wireless communication, applications and effectiveness of radiating power, energy harvesting, green energy solutions, and the human nervous system"-- Provided by publisher.

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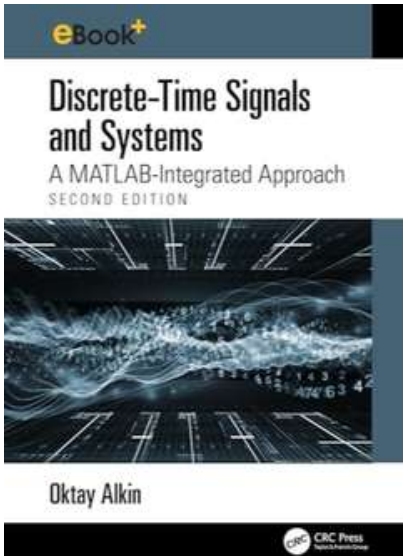

Title : **Discrete-time signals and systems : a MATLAB integrated approach**
Author : **Oktay Alkin**
ISBN : **9781032943909**
Publisher : **CRC Press**
Year : **2025**
Call Number : **QA402.A565 2025 3**

Abstract

.Drawing on author's 30+ years of teaching experience, "Discrete-Time Signals and Systems: A MATLAB Integrated Approach" represents a novel and comprehensive approach to understanding signals and systems theory. Many textbooks use MATLAB as a computational tool, but Alkin's text employs MATLAB both computationally and pedagogically to provide interactive, visual reinforcement of fundamental concepts important in the study of discrete-time signals and systems.

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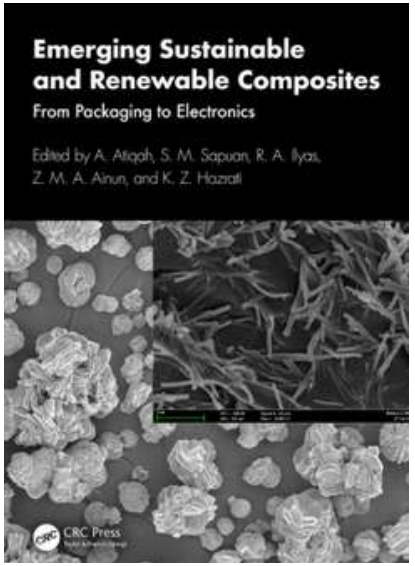

Title : **Emerging Sustainable and Renewable Composites From Packaging to Electronics**
Editor : **Atiqah Mohd Afdzaluddin, Mohd Sapuan Salit, Ahmad Ilyas Rushdan, Zatil Hazrati Kamaruddin**
ISBN : **9781032527536**
Publisher : **CRC Press**
Year : **2025**
Call Number : **TA418.9.C6E464 3**

Abstract

Readers will gain a comprehensive understanding of the development and characterization of sustainable and renewable composites from fibres such as sugar palm, kenaf, sisal, curau, and coir. They will also learn about new potential materials from such fibres and their potential use in various nanoelectronics applications. Each chapter provides recent insight from some of the field's most prominent industry and academic professionals. Chapter contributors present valuable case studies and describe related environmental issues, environmental advantages, and challenges. Topics include biodegradability, tensile and other physical properties, and applications. Consequently, readers can apply this knowledge to the further development of sustainable and renewable composites toward their global use in place of petroleum-based materials and in new electronics products.

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More Info :
https://tinyurl.com/2f9zk8c9

Title : **Sewage – Management and Treatment Techniques**
Editor : **Hassimi Abu Hasan**
ISBN : **9781837699674**
Publisher : **IntechOpen**
Year : **2025**
Call Number : **TD745.S49 3**

Abstract

Sewage - Management and Treatment Techniques explores innovative strategies to treat and manage sewage. It provides a comprehensive overview of technological and socio-environmental aspects, making it a valuable resource for policymakers, academicians, researchers, engineers, and students. The book discusses biological treatment techniques, covering both aerobic and anaerobic processes. It emphasizes microbial interactions, treatment efficiency, and the advantages of each approach in reducing organic and inorganic pollutants in sewage. Microalgae and black soldier fly larvae are also promising biological methods for sewage treatment, emphasizing their role in nutrient recovery and environmental sustainability.

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