1. Record Nr. UNINA9910865235903321

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Titolo	IoT Edge Intelligence / / edited by Souvik Pal, Claudio Savaglio, Roberto Minerva, Flávia C. Delicato
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031583889 9783031583872
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (392 pages)
Collana	Internet of Things, Technology, Communications and Computing, , 2199-1081
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Disciplina	621.382
Soggetti	Telecommunication Signal processing Application software Communications Engineering, Networks Digital and Analog Signal Processing Computer and Information Systems Applications
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1 Architecture, Systems, and Services -- Chapter 1 Modeling, Simulating, and Evaluating Complex End-to-End Edge Intelligence Systems -- Chapter 2 Exploring Edge AI Inference in Heterogeneous Environments: Requirements, Challenges, and Solutions -- Chapter 3 Artificial Intelligence Enabled Edge Computing: Necessity of Next Generation Future Computing System -- Chapter 4 Artificial Intelligence-based IoT-Edge Environment for Industry 5.0 -- Chapter 5 Service Provisioning at the Edge: An AI Approach based on Policies -- Chapter 6 Unsupervised Time Series Anomaly Detection for Edge Computing Applications - A Review -- Part 2 Security and Privacy paradigm -- Chapter 7 Secure, Trusted, Privacy-Protected Data Exchange in an Edge-Cloud Continuum Environment -- Chapter 8 Security, Privacy, Trust and Provenance issues in Internet of Things based Edge Environment -- Chapter 9 Secure Neural Network Inference

for Edge Intelligence: Implications of Bandwidth and Energy Constraints -- Part 3 Applications -- Chapter 10 Internet of Things in Intelligent Transportation Systems -- Chapter 11 IoT- Driven Analytics and Edge Intelligence in Autonomous Navigation Systems -- Chapter 12 Edge-AI for Monitoring Air Pollution from Urban Waste Incineration : A Survey -- Chapter 13 Enabling Artificial Intelligence on IoT Edge: Smart Approaches and Solutions for Providing Remote Dental and Medical Services.

Sommario/riassunto

This book explores fundamental and advanced concepts related to the AI-enabled Edge Technology paradigm, also known as Edge Intelligence, within the framework of the Internet of Things (IoT). Expanding the application of Edge computing is increasingly necessary. This can involve exploring automated, intelligent computational learning theorems, and ANN-oriented, trustworthy machine learning perspectives to enhance computational intelligence. The book functions as a valuable resource for professionals in the sector and also acts as a comprehensive learning tool for newcomers in the field of AI-enabled Edge Technologies and their applications, covering both fundamental and advanced concepts. This book uses data and network engineering and intelligent decision support system-by-design principles to design a reliable IoT edge-cloud ecosystem and to implement cyber-physical pervasive infrastructure solutions. The book will help readers understand the design architecture and AI algorithms and learn analytics through IoT edge, device-edge and the state-of-the-art in cloud-IoT countermeasures. The book is a valuable reference for anyone doing undergraduate or postgraduate studies, conducting research, or working in the computer science, information technology, electronics engineering, and complicated mathematical modeling domains. Serves as a manual for both basic and advanced aspects in edge-enabled technologies; Explores intelligent object identification and object discovery through the edge computing ecosystem; Addresses the complete functional framework and knowledge hierarchy for edge computing and IoT edge.