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Titolo	Machine Learning for Critical Internet of Medical Things : Applications and Use Cases / / edited by Fadi Al-Turjman, Anand Nayyar
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ISBN	3-030-80928-5
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (267 pages)
Disciplina	610.28563 610.285631
Soggetti	Cooperating objects (Computer systems) Artificial intelligence Medical informatics Telecommunication Biomedical engineering Cyber-Physical Systems Artificial Intelligence Health Informatics Communications Engineering, Networks Biomedical Engineering and Bioengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- An Introduction to Basic Concepts on Machine Learning, its architecture and framework -- Machine Learning Models and techniques -- Diseases diagnosis and prediction using Machine Learning -- Machine learning for Mobile/e-health, Tele-medical and Remote healthcare networks -- Machine learning in biomedical, Neuro-critical and medical image processing field -- AI, Deep learning and machine learning enabled connected health informatics -- Machine learning enabled smart healthcare system -- Machine learning based efficient health monitoring systems -- Machine learning case study for virus disease Ebola, COVID-19 consequences -- CASE Study: Machine Learning in Medical domain for Cervical Cancer -- Use cases and applications of machine learning in medical domain -- Conclusion.

Sommario/riassunto	This book discusses the applications, challenges, and future trends of machine learning in medical domain, including both basic and advanced topics. The book presents how machine learning is helpful in smooth conduction of administrative processes in hospitals, in treating infectious diseases, and in personalized medical treatments. The authors show how machine learning can also help make fast and more accurate disease diagnoses, easily identify patients, help in new types of therapies or treatments, model small-molecule drugs in pharmaceutical sector, and help with innovations via integrated technologies such as artificial intelligence as well as deep learning. The authors show how machine learning also improves the physician's and doctor's medical capabilities to better diagnosis their patients. This book illustrates advanced, innovative techniques, frameworks, concepts, and methodologies of machine learning that will enhance the efficiency and effectiveness of the healthcare system. Provides researchers in machine and deep learning with a conceptual understanding of various methodologies of implementing the technologies in medical areas; Discusses the role machine learning and IoT play into locating different virus and diseases across the globe, such as COVID-19, Ebola, and cervical cancer; Includes fundamentals and advances in machine learning in the medical field, supported by significant case studies and practical applications.