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	Descrizione fisica	1 online resource (XVI, 189 p. 1 illus.)
	Collana	Medical Virology: From Pathogenesis to Disease Control, , 2662-9828
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	Nota di contenuto	Chapter 1. Artificial Intelligence for Global Healthcare -- Chapter 2. Artificial Intelligence for Epidemiology COVID-19: Quick Assessment -- Chapter 3. Artificial Intelligence in rural health in developing countries -- Chapter 4. THE ROLE OF ARTIFICIAL INTELLIGENCE TO TRACK COVID-19 DISEASE -- Chapter 5. Artificial Intelligence Techniques based on K-Means two way Clustering and Greedy Triclustering approach for 3D Gene Expression Data (GED) -- Chapter 6. Detection of COVID-19 cases from X-Ray and CT Images using Transfer Learning & Deep Convolution Neural Networks -- Chapter 7. Computer Vision: Augmented Reality (AR), Virtual Reality (VR), Telehealth and Digital Radiology -- Chapter 8. STROKE DISEASE PREDICTION MODEL USING ANOVA WITH CLASSIFICATION ALGORITHMS -- Chapter 9. A CONCISE REVIEW ON DEVELOPMENTAL AND EVALUATION METHODS OF ARTIFICIAL INTELLIGENCE ON COVID 19 DETECTION -- Chapter 10. Artificial Intelligence based Healthcare Industry 4.0 for Disease Detection using Machine Learning Techniques -- Chapter 11. Deep Autoencoder Neural Networks for Heart Sound Classification.
	Sommario/riassunto	This book comprehensively reviews the potential of Artificial Intelligence (AI) in biomedical research and healthcare, with a major

emphasis on virology. The initial chapter presents the applications of machine learning methods for structured data, such as the classical support vector machine and neural network, modern deep learning, and natural language processing for unstructured data in biomedical research and healthcare. The subsequent chapters explore the applications of AI in tackling COVID-19, analysis of the pandemic, viral infection, disease spread, and control. The book further identifies the potential applications of machine learning in the field of virology with a focus on the key aspects of infection: diagnosis, transmission, response to treatment, and resistance. The book also discusses progress and challenges in developing viral vaccines and examines the application of viruses in translational research and human healthcare. Furthermore, the book covers the applications of artificial intelligence-mediated diagnosis and the development of drugs to treat the disease. Towards the end, the book summarizes the ethical and legal challenges posed by AI in healthcare and biomedical research. This book is an invaluable source for researchers, medical and industry practitioners, academicians, and students exploring the applications of AI in biomedical research and healthcare.