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Nota di contenuto	Introduction -- Machine Intelligence Techniques for Identification and Diagnosis of COVID-19 -- AI and ML approaches for Drug Discovery and Manufacturing for COVID-19 -- Medical Imaging Diagnosis and Analysis for COVID-19 -- Personalized Medicines and vaccines development for COVID-19 -- Machine Learning and Behavioral Modification for COVID-19 -- Smart Health Record Management Techniques for COVID-19 -- Intelligent Clinical Trials for COVID-19 -- Crowdsourcing and Data Collection for COVID-19 -- Radiotherapy for COVID-19 -- Outbreak Prediction for COVID-19 -- Intelligent Mobile Applications for COVID-19 -- Internet of Things enabled applications and design Challenges -- Big Data Enabled Solutions for COVID-19 -- Electronic Governance Policies for Pandemic Crisis -- Use of Automation and Robots to Fight Coronavirus -- AR, VR and New-Age Technologies Demand Escalates Amid COVID-19 -- Unlocking Potentials of NLP to Fight against COVID-19 Crisis -- Chatbots for Coronavirus -- Conclusion.

Sommario/riassunto

This book presents the latest cutting edge research, theoretical methods, and novel applications in the field of computational intelligence and computational biological approaches that are aiming to combat COVID-19. The book gives the technological key drivers behind using AI to find drugs that target the virus, shedding light on the structure of COVID-19, detecting the outbreak and spread of new diseases, spotting signs of a COVID-19 infection in medical images, monitoring how the virus and lockdown is affecting mental health, and forecasting how COVID-19 cases and deaths will spread across cities and why. Further, the book helps readers understand computational intelligence techniques combating COVID-19 in a simple and systematic way. Provides a comprehensive reference covering innovations and development of theories, conceptual models and computational algorithms focused on COVID-19; Asserts all relevant research, key themes, complex adaptive systems, metrics and paradigms dedicated towards COVID-19, enabled with evolutionary methods of computational sciences; Explores how AI and computational techniques can help to predict which patients with the virus would go on to develop Acute Respiratory Distress Syndrome (ARDS).