1. Record Nr. UNINA9910830744903321 Enabling healthcare 4. 0 for pandemics: a roadmap using AI, machine **Titolo** learning, IoT and cognitive technologies // edited by Abhinav Juneja [and four others] Hoboken, NJ:,: John Wiley & Sons, Inc.,, 2021 Pubbl/distr/stampa **ISBN** 1-119-76906-X 1-119-76908-6 1-119-76907-8 Descrizione fisica 1 online resource (352 pages) Disciplina 610.285 Soggetti Artificial intelligence - Medical applications Medical technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Cover -- Half-Title Page -- Series Page -- Title Page -- Copyright Page Nota di contenuto -- Contents -- Preface -- Part 1: MACHINE LEARNING FOR HANDLINGCOVID-19 -- 1 COVID-19 and Machine Learning Approaches to Deal With the Pandemic -- 1.1 Introduction -- 1.1.1 COVID-19 and its Various Transmission Stages Depending Upon the Severity of the Problem -- 1.2 COVID-19 Diagnosis in Patients Using Machine Learning -- 1.2.1 Machine Learning to Identify the People who are at More Risk of COVID-19 -- 1.2.2 Machine Learning to Speed Up Drug Development -- 1.2.3 Machine Learning for Re-Use of Existing Drugs

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Sommario/riassunto

ENABLING HEALTHCARE 4.0 for PANDEMICS The book explores the role and scope of AI, machine learning and other current technologies to handle pandemics. In this timely book, the editors explore the current state of practice in Healthcare 4.0 and provide a roadmap for harnessing artificial intelligence, machine learning, and Internet of Things, as well as other modern cognitive technologies, to aid in dealing with the various aspects of an emergency pandemic outbreak. There is a need to improvise healthcare systems with the intervention of modern computing and data management platforms to increase the reliability of human processes and life expectancy. There is an urgent need to come up with smart IoT-based systems which can aid in the detection, prevention and cure of these pandemics with more precision. There are a lot of challenges to overcome but this book proposes a new approach to organize the technological warfare for tackling future pandemics. In this book, the reader will find: State-of-the-art technological advancements in pandemic management; AI and MLbased identification and forecasting of pandemic spread; Smart IoTbased ecosystem for pandemic scenario. Audience The book will be used by researchers and practitioners in computer science, artificial intelligence, bioinformatics, data scientists, biomedical statisticians, as well as industry professionals in disaster and pandemic management.