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   Nota di contenuto   Existing, new and emerging technologies for Disaster Resilience -- Developing the eXtended tangible user interface as an experimental platform for Geo CPS -- Innovation in earthquake early warning system: A case study of EQ Guard -- Drones for disaster risk reduction and crisis response -- VR/ AR and its application to disaster risk reduction -- Communication structure, protocol and data model towards resilient cities in Japan -- A conceptual framework for designing an effective community resilience management system -- Social media and disaster management -- Use of IT for situation awareness for DRR -- Emergency communication and use of ICT in disaster management -- Experimental command and control center for crisis and disaster management: A Living-Lab approach -- Real-time mapping system of shelter conditions for safe evacuation -- Decision support system and new technologies. .

   Sommario/riassunto   Technological advances have helped to enhance disaster resilience through better risk reduction, response, mitigation, rehabilitation and reconstruction. In former times, it was local and traditional knowledge that was mainly relied upon for disaster risk reduction. Much of this local knowledge is still valid in today's world, even though possibly in different forms and contexts, and local knowledge remains a shared part of life within the communities. In contrast, with the advent of science and technology, scientists and engineers have become owners of advanced technologies, which have contributed significantly to

reducing disaster risks across the globe. This book analyses emerging technologies and their effects in enhancing disaster resilience. It also evaluates the gaps, challenges, capacities required and the way forward for future disaster management. A wide variety of technologies are addressed, focusing specifically on new technologies such as cyber physical systems, geotechnology, drone, and virtual reality (VR)/ augmented reality (AR). Other sets of emerging advanced technologies including an early warning system and a decision support system are also reported on. Moreover, the book provides a variety of discussions regarding information management, communication, and community resilience at the time of a disaster. This book's coverage of different aspects of new technologies makes it a valuable resource for students, researchers, academics, policymakers, and development practitioners.