

1. Record Nr.	UNISA996465341303316
Titolo	Big data in emergency management : exploitation techniques for social and mobile data // Rajendra Akerkar, editor
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2020] ©2020
ISBN	3-030-48099-2
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XVIII, 183 p. 97 illus., 79 illus. in color.)
Disciplina	363.340285
Soggetti	Emergency management - Data processing Big data Natural disasters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Introduction to Emergency Management -- 2. Big Data -- 3. Learning Algorithms for Emergency Management -- 4. Knowledge Graphs and Natural-Language Processing -- 5. Social Media Mining for Disaster Management and Community Resilience -- 6. Big Data-Driven Citywide Human Mobility Modeling for Emergency Management -- 7. Smartphone based Emergency Communication -- 8. Emergency Information Visualisation. .
Sommario/riassunto	This contributed volume discusses essential topics and the fundamentals for Big Data Emergency Management and primarily focusses on the application of Big Data for Emergency Management. It walks the reader through the state of the art, in different facets of the big disaster data field. This includes many elements that are important for these technologies to have real-world impact. This book brings together different computational techniques from: machine learning, communication network analysis, natural language processing, knowledge graphs, data mining, and information visualization, aiming at methods that are typically used for processing big emergency data. This book also provides authoritative insights and highlights valuable lessons by distinguished authors, who are leaders in this field. Emergencies are severe, large-scale, non-routine events that disrupt

the normal functioning of a community or a society, causing widespread and overwhelming losses and impacts. Emergency Management is the process of planning and taking actions to minimize the social and physical impact of emergencies and reduces the community's vulnerability to the consequences of emergencies. Information exchange before, during and after the disaster periods can greatly reduce the losses caused by the emergency. This allows people to make better use of the available resources, such as relief materials and medical supplies. It also provides a channel through which reports on casualties and losses in each affected area, can be delivered expeditiously. Big Data-Driven Emergency Management refers to applying advanced data collection and analysis technologies to achieve more effective and responsive decision-making during emergencies. Researchers, engineers and computer scientists working in Big Data Emergency Management, who need to deal with large and complex sets of data will want to purchase this book. Advanced-level students interested in data-driven emergency/crisis/disaster management will also want to purchase this book as a study guide.

---