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| Autore                  | Liu Hui                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Titolo                  | Smart Cities: Big Data Prediction Methods and Applications [[electronic resource] /] / by Hui Liu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Pubbl/distr/stampa      | Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ISBN                    | 981-15-2837-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Edizione                | [1st ed. 2020.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Descrizione fisica      | 1 online resource (XXXV, 314 p. 251 illus., 20 illus. in color.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Disciplina              | 307.760285                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Soggetti                | Artificial intelligence<br>Big data<br>Computational intelligence<br>Architecture<br>Neural networks (Computer science)<br>Artificial Intelligence<br>Big Data<br>Computational Intelligence<br>Cities, Countries, Regions<br>Mathematical Models of Cognitive Processes and Neural Networks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Formato                 | Materiale a stampa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Nota di bibliografia    | Includes bibliographical references.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Nota di contenuto       | Part 1 Exordium -- 1. Key Issues of Smart Cities -- Part 2 Smart Grid and Buildings -- 2. Electrical Characteristics and Correlation Analysis in Smart Grid -- 3. Prediction Model of City Electricity Consumption -- 4. Prediction Models of Energy Consumption in Smart Urban Buildings -- Part 3 Smart Traffic Systems -- 5. Characteristics and Analysis of Urban Traffic Flow in Smart Traffic Systems -- 6. Prediction Model of Traffic Flow Driven Based on Single Data in Smart Traffic Systems -- 7. Prediction Models of Traffic Flow Driven Based on Multi-dimensional Data in Smart Traffic Systems -- Part 4 Smart Environment 8 Prediction Models of Urban Air Quality in Smart Environment -- 9. Prediction Models of Urban Hydrological Status in Smart Environment -- 10. Prediction Model of Urban Environmental Noise in Smart Environment. |
| Sommario/riassunto      | Smart Cities: Big Data Prediction Methods and Applications is the first                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

reference to provide a comprehensive overview of smart cities with the latest big data predicting techniques. This timely book discusses big data forecasting for smart cities. It introduces big data forecasting techniques for the key aspects (e.g., traffic, environment, building energy, green grid, etc.) of smart cities, and explores three key areas that can be improved using big data prediction: grid energy, road traffic networks and environmental health in smart cities. The big data prediction methods proposed in this book are highly significant in terms of the planning, construction, management, control and development of green and smart cities. Including numerous case studies to explain each method and model, this easy-to-understand book appeals to scientists, engineers, college students, postgraduates, teachers and managers from various fields of artificial intelligence, smart cities, smart grid, intelligent traffic systems, intelligent environments and big data computing.

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