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| 1. Record Nr.           | UNINA9910255010903321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Autore                  | Yan Wei Qi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Titolo                  | Introduction to Intelligent Surveillance // by Wei Qi Yan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Pubbl/distr/stampa      | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ISBN                    | 3-319-28515-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Edizione                | [1st ed. 2016.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Descrizione fisica      | 1 online resource (XIII, 148 p. 69 illus., 38 illus. in color.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Collana                 | Texts in Computer Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Disciplina              | 621.38928                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Soggetti                | Pattern recognition systems<br>Computer networks<br>Automated Pattern Recognition<br>Computer Communication Networks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Formato                 | Materiale a stampa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Note generali           | Bibliographic Level Mode of Issuance: Monograph                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Nota di contenuto       | Introduction -- Surveillance Data Capturing and Compression -- Surveillance Data Secure Transmissions -- Surveillance Data Analytics -- Biometrics for Surveillance -- Visual Event Computing I -- Visual Event Computing II -- Surveillance Alarm Making -- Surveillance Computing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Sommario/riassunto      | This concise textbook/reference examines the fundamental aspects of intelligent computing for surveillance systems, from camera calibration and data capturing, to secure data transmission. The text covers digital surveillance from the level of an individual object or biometric feature, to the full lifecycle of an event. This is followed by a detailed discussion on how an intelligent system can independently monitor and learn from an event, and invite human input when necessary. The book concludes with a presentation on how the computation speed of the system can be enhanced through the use of supercomputing technology. Topics and features: Contains exercises at the end of every chapter, and a glossary of important terms Provides a thorough introduction to the fundamentals of intelligent surveillance, including surveillance data capture and surveillance data compression Covers the key issues of computer network infrastructure, security, monitoring and forensics, and the essential aspects of object analysis Presents a detailed review |

of algorithms for surveillance data analytics using biometric features Introduces the concept of surveillance events, and discusses how artificial intelligence can be used for the automated observation and understanding of such events Reviews algorithms that apply decision-making approaches to determine the need for triggering an alarm to alert a member of security staff Describes the use of cutting-edge supercomputing technologies for digital surveillance, such as FPGA, GPU and parallel computing This accessible work serves as a classroom-tested textbook on intelligent surveillance for undergraduate and postgraduate students, as well as a self-study reference for researchers entering this area. Dr. Wei Qi Yan is an Associate Professor in the Department of Computer Science at Auckland University of Technology, New Zealand. His other publications include the Springer title Visual Cryptography for Image Processing and Security.

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