Record Nr. UNINA9910821278803321 Data fusion for situation monitoring, incident detection, alert and **Titolo** response management / / edited by Elisa Shahbazian, Galina Rogova, Pierre Valin Amsterdam,: IOS Press, 2005 Pubbl/distr/stampa **ISBN** 661050489X 1-280-50489-7 9786610504893 1-4294-0579-1 1-60750-124-4 600-00-0390-0 1-60129-105-1 Edizione [1st ed.] Descrizione fisica 1 online resource (832 p.) NATO science series. Series III, Computer and systems sciences;; vol. Collana 198 Altri autori (Persone) ShahbazianE (Elisa) RogovaGalina ValinPierre 621.38928 Disciplina Soggetti Computer vision Image processing Multisensor data fusion Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali published in cooperation with NATO Public Diplomacy Division. Includes bibliographical references and index. proceedings of the NATO Advanced Study Institute on Data fusion for situation monitoring, incident detection, alert and response management. Includes bibliographical references and index. Nota di bibliografia Title page; Preface; Contents; Fusion Methodology; Information Fusion Nota di contenuto

for Decision Making; A Gentle Introduction to Fusion of Multiple Pattern

Knowledge, Uncertainty and Belief in Information Fusion and Situation Analysis; Information Evaluation: A Formalisation of Operational Recommendations; Fusion Techniques for Airborne and Spaceborne

Classifiers; Uncertainty Management for Intelligence Analysis;

Identification of Objects; Distributed Fusion: Learning in Multi-Agent Systems for Time Critical Decision Making; Active Robotic Sensing as Decision Making with Statistical Methods

A New Genetic Algorithm for Global Optimization of Resources in Naval WarfareCalculus of Variations and Data Fusion; Reliability in Multiple Hypotheses Testing and Identification Problems; Human Computer Interaction; Decision Support in Command and Control; Multimodal Input Fusion in Human-Computer Interaction; Spatio-Temporal Data Visualization and Analysis for Multi-Target Tracking; Systems and Architectures; Principles of Systems Engineering for Data Fusion Systems; A Taxonomy of Sensor Processing Architectures; Knowledge Fusion in the Scalable Infosphere

Multi-Agent Data and Information FusionArchitecture Analysis and Demonstration of Distributed Data Fusion; Data Fusion Testbed for Recognized Maritime Picture: Comparisons of Track-Level Fusion Results with Tracklets Application Within a Simulation Environment; Data Fusion for Imagery; Multisensors and Contextual Information Fusion; Fusion of Two Imagery Classifiers; Application of Multi-Dimensional Discrete Transforms on Lie Groups for Image Processing; Application of Continuous Extension of DCT to FLIR Images Neural Network-Based Fusion of Image and Non-Image Data for Surveillance and Tracking ApplicationsSuper-Resolution of Tactical Surveillance and Tracking Data for Fusion of Images; Design of Fusion Architectures for Surveillance and Tracking Using Information Value Mappings; Intelligent Fusion of Visual, Radio and Heterogeneous Embedded Sensor Information Within Cooperative and Distributed Smart Spaces; Multimodal Cooperative Modulation Estimation and Terminal Location for Multisource Sensor Networks Issues in Multicamera Dynamic Metadata Information Extraction and Interpretation for Ambient IntelligenceAn Expert System for Surveillance Picture Understanding; Tracking and Sensor Fusion; Group Tracking; Robust Modification of the EM-Algorithm for Parametric Multitrajectory Estimation in Noise and Clutter; Non-Parametric Multi-Trajectory Estimation: Integrated Estimation and Guidance for Target Interception: An Adaptive, Variable Structure, Multiple Model Estimator; A Distributed Sensor Network for Real-Time Multisensor Surveillance Against Possible **Terrorist Actions**

Advantages and Drawbacks of Multisite Radar Systems

Sommario/riassunto

Data Fusion is an interdisciplinary technology domain. This work focuses on the mature phase of data fusion, namely the detection and identification/classification of phenomena being observed and exploitation of the related methods for Security-Related Civil Science and Technology (SST) applications.