Record Nr. UNINA9910299371903321 Information Fusion and Intelligent Geographic Information Systems **Titolo** (IF&IGIS'17): New Frontiers in Information Fusion and Intelligent GIS: From Maritime to Land-based Research / / edited by Vasily Popovich, Manfred Schrenk, Jean-Claude Thill, Christophe Claramunt, Tianzhen Wang Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 3-319-59539-3 **ISBN** Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (XII, 269 p. 119 illus.) Lecture Notes in Geoinformation and Cartography, , 1863-2246 Collana Disciplina 910.285 Soggetti Geographical information systems **Environmental monitoring** Marine sciences Freshwater Artificial intelligence Acoustics Computer simulation Geographical Information Systems/Cartography Monitoring/Environmental Analysis Marine & Freshwater Sciences Artificial Intelligence Simulation and Modeling Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Part 1: Data Modelling, Integration, Fusion and Analysis in IGIS -- Space Theory for Intelligent GIS -- Detecting Attribute-based Homogeneous Patches Using Spatial Clustering: A Comparison Test -- Part 2: Maritime Traffic Control Methods -- Vessel scheduling optimization in different

types of waterway -- The Route Planning for Vessel Based on the Dynamic Complexity Map -- Part 3: IGIS integration with acoustic, remote sensing and radar systems -- Calibration and verification of the

models defining radar visibility zones in marine geoinformation systems -- Geoinformational Support of Search Efforts Distribution in Changing Environmental Conditions -- Part 4: Ports, Maritime Transportation and Logistics -- Community Structures in Networks of Disaggregated Cargo Flows to Maritime Ports -- Simulation Modeling of Maritime Monitoring Systems with Application of Information Technology Complex -- Part 5: IGIS for Land-based Research -- ST-PF: Spatio-Temporal Particle Filter for Floating Car Data Pre-processing -- Geochronologic Tracking – Specialized GIS Analysis Tool for Historic Research.

Sommario/riassunto

This book presents the proceedings of the 8th international Symposium "Information Fusion and Intelligent Geographic Information Systems 2017" (IF&ICIS'2017), which took place at Shanghai Maritime University, China, from May 10 to 12, 2017. The goal of the symposium was to bring together leading global experts in the field of spatial information integration and intelligent GIS (IGIS) to exchange cutting-edge research ideas and experiences, to discuss perspectives on the fast-paced development of geospatial information theory, methods and models in order to demonstrate the latest advances in IGIS and discover new ways of collaboration. The topics focus on IGIS fundamentals, models, technologies and services in maritime research, such as underwater acoustics, radiolocation, navigation, marine energy, logistics, environmental management, seafood, safety of maritime navigation and others. In addition the book discusses the integration of IGIS technologies in the emerging field of digital humanities research.