1. Record Nr. UNINA9910438106403321

Titolo	Co-evolution of Intelligent Socio-technical Systems : Modelling and Applications in Large Scale Emergency and Transport Domains / / edited by Evangelia Mitleton-Kelly
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013
ISBN	9783642366147 3642366147
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (VI, 293 p. 88 illus., 77 illus. in color.)
Collana	Understanding Complex Systems, , 1860-0832
Disciplina	620
Soggetti	Computational complexity Application software Social sciences Sociophysics Econophysics Automotive engineering Complexity Computer Appl. in Social and Behavioral Sciences Methodology of the Social Sciences Data-driven Science, Modeling and Theory Building Automotive Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Part I : Introduction and literature reviews -- The Socionical FP7 Project and an outline of the volume -- Enhancing Crowd Evacuation & Traffic Management, through AmI technologies - A Review of the Literature -- A The Concept of ‘Co-evolution’ and its Application in the Social Sciences – A Review of the literature -- Part II: EMERGENCY -- Using mobile technology and a participatory sensing approach for crowd monitoring during large-scale mass gatherings -- Agent-based Modelling of Social Emotional Decision Making in Emergency Situations, - Designing Complex Socio-technical Systems: Empirically Grounded

Simulations as Tools for Experience-based Design Space Explorations -- Part III: TRANSPORT -- Enhancing Future Mass ICT with Social Capabilities -- Emerging Phenomena During Driving Interactions -- Effective Assessment of AmI Intervention in Traffic Through Quantitative Measures -- Part IV: CITY SCALE -- City Scale Evacuation Simulation: A High-Performance Multi-Agent Simulation Framework.

Sommario/riassunto

As the interconnectivity between humans through technical devices is becoming ubiquitous, the next step is already in the making: ambient intelligence, i.e. smart (technical) environments, which will eventually play the same active role in communication as the human players, leading to a co-evolution in all domains where real-time communication is essential. This topical volume, based on the findings of the Socionical European research project, gives equal attention to two highly relevant domains of applications: transport, specifically traffic, dynamics from the viewpoint of a socio-technical interaction and evacuation scenarios for large-scale emergency situations. Care was taken to investigate as much as possible the limits of scalability and to combine the modeling using complex systems science approaches with relevant data analysis.