

1. Record Nr.	UNINA9910253966703321
Titolo	Intelligent Computing Systems [[electronic resource]] : Emerging Application Areas // edited by George A. Tsihrintzis, Maria Virvou, Lakhmi C. Jain
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2016
ISBN	3-662-49179-6
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (X, 368 p. 144 illus., 20 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 627
Disciplina	620
Soggetti	Computational intelligence Artificial intelligence Computational Intelligence Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Editorial -- Semantic tools; Their <use for Knowledge Management in the Public Sector -- Semantic Tools; Their Use for Knowledge Management in the Public Sector -- A Semantic Approach for Representing and Querying Business Processes -- Using Conversational Knowledge Management as a Lens for Virtual Collaboration in the Course of Small Group Activities -- Spatial Environments for m-learning: Review and Potentials -- Science Teachers' Metaphors of Digital Technologies and Social Media in Pedagogy in Finland and in Greece -- Data Driven Monitoring of Energy Systems: Gaussian Process Kernel Machines for Fault Identification with Application to Boiling Water Reactors -- A Framework to Assess the Behavior and Performance of a City Towards Energy Optimization -- An Energy Management Platform for Smart Microgrids -- Transit Journaling and Traffic Sensitive Routing for a Mixed Mode Public Transportation System -- Adaptation of Automatic Information Extraction Method for Environmental Heatmaps to U-matrices of Self Organising Maps -- Evolutionary Computing and Genetic Algorithms: Paradigm Applications in 3D Printing Process Optimization -- Sotirios Spanogianopoulos and Konstantinos Sirlantzis -- Computing a Similarity Coefficient for Mining

Massive Data Sets -- A Probe Guided Crossover Operator for More Efficient Exploration of the Search Space.

Sommario/riassunto

This book at hand explores emerging scientific and technological areas in which Intelligent Computing Systems provide efficient solutions and, thus, may play a role in the years to come. It demonstrates how Intelligent Computing Systems make use of computational methodologies that mimic nature-inspired processes to address real world problems of high complexity for which exact mathematical solutions, based on physical and statistical modelling, are intractable. Common intelligent computational methodologies are presented including artificial neural networks, evolutionary computation, genetic algorithms, artificial immune systems, fuzzy logic, swarm intelligence, artificial life, virtual worlds and hybrid methodologies based on combinations of the previous. The book will be useful to researchers, practitioners and graduate students dealing with mathematically-intractable problems. It is intended for both the expert/researcher in the field of Intelligent Computing Systems, as well as for the general reader in the fields of Artificial and Computational Intelligence who wishes to learn more about the field of Intelligent Computing Systems and its applications. An extensive list of bibliographic references at the end of each chapter guides the reader to probe further into application area of interest to him/her.