

Studies in Computational Intelligence

Volume 647

Series editor

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About this Series

The series “Studies in Computational Intelligence” (SCI) publishes new developments and advances in the various areas of computational intelligence—quickly and with a high quality. The intent is to cover the theory, applications, and design methods of computational intelligence, as embedded in the fields of engineering, computer science, physics and life sciences, as well as the methodologies behind them. The series contains monographs, lecture notes and edited volumes in computational intelligence spanning the areas of neural networks, connectionist systems, genetic algorithms, evolutionary computation, artificial intelligence, cellular automata, self-organizing systems, soft computing, fuzzy systems, and hybrid intelligent systems. Of particular value to both the contributors and the readership are the short publication timeframe and the worldwide distribution, which enable both wide and rapid dissemination of research output.

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Emerging Trends and Advanced Technologies for Computational Intelligence

Extended and Selected Results
from the Science and Information Conference
2015

 Springer

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Editor's Preface

The Science and Information (SAI) Organization is an international professional organisation dedicated to promoting research, technology and development by providing multiple platforms for professionals and researchers to exchange and disseminate the latest research results and findings. It has covered a wide range of topics with special emphasis being placed on the general areas of computer science and information technologies. This includes the emerging technology trends, e.g. cloud computing, big data and ambient intelligence; communication systems, e.g. 3G/4G network evolution and mobile ad hoc networks; electronics, e.g. novel sensing and sensor networks; security, e.g. secure transactions, cryptography and cyber law; machine vision, e.g. virtual reality and video analysis; and intelligent data management, e.g. artificial intelligence, neural networks, data mining and knowledge management and e-learning and e-business. Science and Information (SAI) Conference is a premier event organised by SAI for researchers and industry practitioners to share their new ideas, original research results and practical development experiences from all of the aforementioned areas.

In addition to providing researchers with an opportunity for presenting their findings and views, SAI2015 also helps increase public engagement with science and community. The conference features a number of interviews, publicity of presentations and keynotes in social platforms such as YouTube, which are made available to the general public to raise awareness of the advancements and application of science and information technologies.

SAI Conference 2015 has attracted huge attention from researchers and practitioners around the world. During the three-day event, 260 scientists, technology developers, young researcher including Ph.D. students, and industrial practitioners from 56 countries have engaged intensively in presentations, demonstrations, open panel sessions and informal discussions. The inspiring keynote speeches and the state-of-the-art lectures have deeply motivated attendees and envisioned future research directions. The conference has greatly facilitated knowledge transfer and synergy, bridged gaps between different research communities/groups, laid down

foundation for common purposes and helped identify opportunities and challenges for interested researchers and technology and system developers.

To further the dissemination of high-quality research and novel technologies presented in SAI Conference 2015, 21 papers, which received highly recommended feedback from peer review, have been selected for this special edition of Springer book on SAI Conference 2015. All papers have gone through substantial extension and consolidation and are subject to another round of rigorous review and additional modification. We believe that these papers represent the state of the art of the cutting-edge research and technologies in related areas and can help inform relevant research communities and individuals of the future development in science and information.

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