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Hybrid Intelligent Systems

21st International Conference on Hybrid Intelligent Systems (HIS 2021), December 14–16, 2021

Springer

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Preface

Welcome to the 21st International Conference on Hybrid Intelligent Systems (HIS 2021) and the 17th International Conference on Information Assurance and Security (IAS 2021) held in the World Wide Web during December 14–16, 2021. Due to the ongoing pandemic situation, both events were held online.

Hybridization of intelligent systems is a promising research field of modern artificial/computational intelligence concerned with the development of the next generation of intelligent systems. A fundamental stimulus to the investigations of hybrid intelligent systems (HIS) is the awareness in the academic communities that combined approaches will be necessary if the remaining tough problems in computational intelligence are to be solved. Recently, hybrid intelligent systems are getting popular due to their capabilities in handling several real-world complexities involving imprecision, uncertainty, and vagueness. HIS 2021 received submissions from 19 countries, and each paper was reviewed by at least five reviewers in a standard peer-review process. Based on the recommendation by five independent referees, finally forty-five papers were presented during the conference (acceptance rate of 32%).

Information assurance and security have become an important research issue in the networked and distributed information sharing environments. Finding effective ways to protect information systems, networks, and sensitive data within the critical information infrastructure is challenging even with the most advanced technology and trained professionals. The 16th International Conference on Information Assurance and Security (IAS) aims to bring together researchers, practitioners, developers, and policy makers involved in multiple disciplines of information security and assurance to exchange ideas and to learn the latest development in this important field. IAS 2021 received submissions from 11 countries, and each paper was reviewed by at least five reviewers in a standard peer-review process. Based on the recommendation by five independent referees, finally sixteen papers were presented during the conference (acceptance rate of 34%).

Many people have collaborated and worked hard to produce this year successful HIS–IAS conferences. First and foremost, we would like to thank all the authors for submitting their papers to the conference, for their presentations and discussions

during the conference. Our thanks to program committee members and reviewers, who carried out the most difficult work by carefully evaluating the submitted papers. Our special thanks to the following plenary speakers, for their exciting plenary talks:

- Yukio Ohsawa, The University of Tokyo, Japan
- Juergen Branke, University of Warwick, UK
- Cengiz Toklu, Beykent University, Turkey
- Günther Raidl, Technische Universität Wien, Austria
- Kalyanmoy Deb, Michigan State University, USA
- Oscar Cordon, University of Granada, Spain
- Andries Engelbrecht, University of Stellenbosch, South Africa
- Antônio de Padua Braga, Federal University of Minas Gerais, Brazil
- Frédéric Guinand, Le Havre Normandy University, France
- Marco Dorigo, Université Libre de Bruxelles, Belgium

Our special thanks to the Springer Publication team for the wonderful support for the publication of these proceedings. We express our sincere thanks to the session chairs and organizing committee chairs for helping us to formulate a rich technical program. We express our sincere thanks to the organizing committee chairs for helping us to formulate a rich technical program. Enjoy reading the articles!

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