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Hybrid Intelligent Systems


19th International Conference on Hybrid
Intelligent Systems (HIS 2019) held
in Bhopal, India, December 10–12, 2019

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Welcome Message

Welcome to VIT Bhopal University, India, and to the 19th International Conference on Hybrid Intelligent Systems (HIS 2019) and the 14th International Conference on Information Assurance and Security (IAS 2019). In 2018, HIS and IAS were held at Instituto Superior de Engenharia do Porto (ISEP), Portugal, during December 13–15.

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 2019 received submissions from 15 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 34 papers will be presented during the conference (acceptance rate of 35% including virtual presentations).

Information assurance and security have become an important research issue in 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. 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 2019 received submissions from ten 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 eight papers will be presented during the conference (acceptance rate of 30% including virtual presentations).

Conference proceedings will be published by Springer Verlag, *Advances in Intelligent Systems and Computing Series*, which is now indexed by ISI Proceedings, DBLP, SCOPUS, etc. 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. We are grateful to our three plenary speakers for the wonderful talks:

- Prof. Dr. Arturas Kaklauskas, Vilnius Gediminas Technical University, Lithuania
- Prof. Dr. Pawan Lingras, Saint Mary's University, Halifax, Canada
- Prof. Dr. Stephen Huang, University of Houston, USA

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 local organizing committee chairs for helping us to formulate a rich technical program.

We are thankful to administrative officers of VIT University Bhopal for hosting HIS–IAS 2019. Special thanks to Dr. Shishir Shandilya (General Chair: HIS–IAS 2019, VIT University Bhopal) and his team for the great local organization.

Looking forward to interacting with all of you during the conferences.

Ajith Abraham
Steering Committee Chairs (HIS–IAS Conference Series)

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