Communications in Computer and Information Science 1005

Commenced Publication in 2007
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Cognitive Systems and Signal Processing

4th International Conference, ICCSIP 2018
Beijing, China, November 29 – December 1, 2018
Revised Selected Papers, Part I

Springer

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ISSN 1865-0929 ISSN 1865-0937 (electronic)
Communications in Computer and Information Science
ISBN 978-981-13-7982-6 ISBN 978-981-13-7983-3 (eBook)
https://doi.org/10.1007/978-981-13-7983-3

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Preface

Welcome to the proceedings of the International Conference on Cognitive Systems and Information Processing (ICCSIP 2018), which was held in Beijing, the capital of China, from November 29 to December 1, 2018. ICCSIP is the prestigious biennial conference on cognitive systems and information processing with past events held in Beijing (2012, 2014, 2016). Over the past few years, ICCSIP has matured into a well-established series of international conferences on cognitive information processing and related fields over the world. Similar to the previous event, ICCSIP 2018 provided an academic forum for the participants to share their new research findings and discuss emerging areas of research. It also established a stimulating environment for the participants to exchange ideas on future trends and opportunities of cognitive information processing research.

Currently, cognitive systems and information processing are applied in an increasing number of research domains such as cognitive sciences and technology, visual cognition and computation, big data and intelligent information processing, bioinformatics and applications. We believe that cognitive systems and information processing will certainly exhibit greater-than-ever advances in the near future. With the aim of promoting the research and technical innovation in relevant fields domestically and internationally, the fundamental objective of ICCSIP is defined as providing a premier forum for researchers and practitioners from academia, industry, and government to share their ideas, research results, and experiences.

This year, ICCSIP received 169 submissions, all of which are written in English. After a thorough reviewing process, 96 papers were selected for presentation as full papers, resulting in an approximate acceptance rate of 56%. The accepted papers not only address challenging issues in various aspects of cognitive systems and information processing but also showcase contributions from related disciplines that illuminate the state of the art. In addition to the contributed papers, the ICCSIP 2018 technical program included three plenary speeches by Prof. Qionghai Dai, Prof. Feiyue Wang, and Prof. Jianwei Zhang. We would also like to thank the members of the Advisory Committee for their guidance, the members of the international Program Committee and additional reviewers for reviewing the papers, and the members of the Publications Committee for checking the accepted papers in a short period of time. Last but not the least, we would like to thank all the speakers and authors as well as the participants for their great contributions that made ICCSIP2018 successful and all the hard work worthwhile.

December 2018

Fuchun Sun
Huaping Liu
Dewen Hu

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ICCSIP 2018 was organized by the Cognitive Systems and Information Processing Society of Chinese Association for Artificial Intelligence, Cognitive Computing and Systems Society of Chinese Association of Automation, Tsinghua University, Science in China Press, Institute of Software Chinese Academy of Sciences.

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