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Advances in Neural Networks – ISNN 2019

16th International Symposium on Neural Networks, ISNN 2019
Moscow, Russia, July 10–12, 2019
Proceedings, Part II

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Preface

This volume contains the papers presented at ISNN 2019: the 16th International Symposium on Neural Networks held during July 10–12, 2019, in Moscow. Located by the Moskva River, Moscow is the capital and largest city in Russia with a population of over 13 million. Thanks to the success of the previous events, ISNN has become a well-established series of popular and high-quality conferences on the theory and methodology of neural networks and their applications. ISNN 2019 aimed to provide a high-level international forum for scientists, engineers, and educators to present the state of the art of neural network research and applications in related fields. The symposium also featured plenary speeches given by world renowned scholars, regular sessions with a broad coverage, and special sessions focusing on popular topics.

This year, the symposium received more submissions than previous years. Each submission was reviewed by at least two, and on average, 4.5 Program Committee members. After the rigorous peer reviews, the committee decided to accept 111 papers for publication in the *Lecture Notes in Computer Science* (LNCS) proceedings. These papers cover many topics of neural network-related research including learning system, graph model, adversarial learning, time series analysis, dynamic prediction, uncertain estimation, model optimization, clustering, game theory, stability analysis, control method, industrial application, image recognition, scene understanding, biomedical engineering, hardware. In addition to the contributed papers, the ISNN 2019 technical program included three keynotes and plenary speeches by renowned scholars: Prof. Andrzej Cichocki (IEEE Fellow, Skolkovo Institute of Science and Technology, Moscow, Russia), Prof. Yaochu Jin (IEEE Fellow, University of Surrey, Guildford, UK), and Prof. Nikhil R. Pal (IEEE Fellow, Indian Statistical Institute, Calcutta, India).

Many organizations and volunteers made great contributions toward the success of this symposium. We would like to express our sincere gratitude to Skolkovo Institute of Science and Technology and City University of Hong Kong for their sponsorship, the International Neural Network Society, Asian Pacific Neural Network Society, Polish Neural Network Society, and Russian Neural Network Society for their technical co-sponsorship. We would also like to sincerely thank all the committee members for their great efforts in organizing the symposium. Special thanks to the Program Committee members and reviewers whose insightful reviews and timely feedback ensured the high quality of the accepted papers and the smooth flow of the symposium. We would also like to thank Springer for their cooperation in publishing the proceedings in the prestigious LNCS series. Finally, we would like to thank all the speakers, authors, and participants for their support.

June 2019

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