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Agents and Artificial Intelligence

11th International Conference, ICAART 2019
Prague, Czech Republic, February 19–21, 2019
Revised Selected Papers

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Preface

The present book includes extended and revised versions of a set of selected papers from the 11th International Conference on Agents and Artificial Intelligence (ICAART 2019), held in Prague, Czech Republic, during February 19–21, 2019.

ICAART 2019 received 202 paper submissions from 43 countries, of which 8,4% were included in this book. The selection procedure was as follows. First, the papers were selected by the event chairs. Their selection was based on a number of criteria that include (1) the classifications and comments provided by the Program Committee members, (2) the session chairs' assessments, and (3) the program chairs' global view of all papers presented in the technical program. Then the authors of the selected papers were invited to submit a revised and extended version of their papers having at least 30% innovative material. Finally, the remaining submissions were thoroughly reviewed, leading to the publication of 17 submissions.

The purpose of the ICAART is to bring together researchers, engineers, and practitioners interested in the theory and applications in the areas of Agents and Artificial Intelligence (AI). Two simultaneous related tracks have been held, covering both applications and current research work. One track focused on Agents, Multi-Agent Systems and Software Platforms, Distributed Problem Solving, and Distributed AI in general. The other track focused mainly on AI, Knowledge Representation, Planning, Learning, Scheduling, Perception, Reactive AI Systems, Evolutionary Computing, and other topics related to Intelligent Systems and Computational Intelligence.

The book opens with a publication on Natural Language Processing (NLP), titled "The Dynamics of Semantic Change." This is then followed by 12 publications on AI. The topics, vast and interesting, range from wide and deep reinforcement learning via Neural Hidden Markov Model to the Social Golfer Problem Revisited. Thereafter, the book includes four publications on Agents, ranging from inspiring the multi-agent cooperation to the application of conversational agents. Here the books shows four interesting topics to the ICAART community.

Finally, we would like to thank all the authors for their contributions and the reviewers who have helped us ensure the quality of this publication.

February 2019

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