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Yves Demazeau · Bo An Javier Bajo · Antonio Fernández-Caballero (Eds.)

Advances in Practical Applications of Agents, Multi-Agent Systems, and Complexity

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#### **Preface**

Research on agents and multi-agent systems has matured during the past decade and many effective applications of this technology are now deployed. An international forum to present and discuss the latest scientific developments and their effective applications, to assess the impact of the approach, and to facilitate technology transfer, became a necessity and was created almost two decades ago.

PAAMS, the International Conference on Practical Applications of Agents and Multi-Agent Systems, is the international yearly forum in which to present, to discuss, and to disseminate the latest developments and the most important outcomes related to real-world applications. It provides a unique opportunity to bring multi-disciplinary experts, academics, and practitioners together to exchange their experience in the development and deployment of agents and multi-agent systems.

This volume presents the papers that were accepted for the 2018 edition of PAAMS. These articles report on the application and validation of agent-based models, methods, and technologies in a number of key application areas, including: energy and security, engineering and tools, evaluation and ethics, negotiation and organizations, personalization and learning, simulation applications, simulation platforms, social networks and humans. Each paper submitted to PAAMS went through a stringent peer review by three members of the Program Committee composed of 121 internationally renowned researchers from 26 countries. From the 64 submissions received, ten were selected for full presentation at the conference; another ten papers were accepted as short presentations. In addition, a demonstration track featuring innovative and emergent applications of agent and multi-agent systems and technologies in real-world domains was organized. In all, 21 demonstrations were shown, and this volume contains a description of each of them.

We would like to thank all the contributing authors, the members of the Program Committee, the sponsors (IEEE SMC Spain, IBM, AEPIA, AFIA, APPIA, NTU, and CNRS), and the Organizing Committee for their hard and highly valuable work. Their work contributed to the success of the PAAMS 2018 event. Thanks for your help – PAAMS 2018 would not exist without your contribution.

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## **Contents**

Invited Speaker	
Hammer or Tongs: How Best to Build Agent-Based Models?	3
Towards Autonomous AI Systems for Resource Management: Applications in Industry and Lessons Learned	12
Regular Papers	
A Holonic Multi-agent Based Diagnostic Decision Support System for Computer-Aided History and Physical Examination	29
A Resilient Agent-Based Re-organizing Traffic Network for Urban Evacuations	42
Coping with Bad Agent Interaction Protocols When Monitoring Partially Observable Multiagent Systems	59
SimFI: A Transmission Agent-Based Model of Two Interacting Pathogens Hélène Arduin and Lulla Opatowski	72
Electric Vehicles Fleet for Frequency Regulation Using a Multi-Agent System	84
Using Run-Time Biofeedback During Virtual Agent-Based Aggression De-escalation Training	97
Multi-Agent Systems and Blockchain: Results from a Systematic  Literature Review	110

A Model and Platform for Building Agent-Based Pervasive Mixed Reality Systems	127
Classification of Spatio-Temporal Trajectories Based on Support Vector Machines	140
A Cooperative Multi-Agent System for Wind Power Forecasting	152
Cooperative Agents for Discovering Pareto-Optimal Classifiers Under Dynamic Costs	164
Unemployment Expectations in an Agent-Based Model with Education Luca Gerotto and Paolo Pellizzari	175
Towards Reducing Complexity of Multi-agent Simulations by Applying Model-Driven Techniques	187
Environment for Identification of Significant Subjects on Information Portals	200
Evaluation of Multi-agent Coordination on Embedded Systems	212
AgentUDE17: A Genetic Algorithm to Optimize the Parameters of an Electricity Tariff in a Smart Grid Environment	224
A First Step Towards a General-Purpose Distributed Cyberdefense System	237
A Network-Oriented Adaptive Agent Model for Learning Regulation of a Highly Sensitive Person's Response	248
SAIL: A Social Artificial Intelligence Layer for Human-Machine Teaming Bob van der Vecht, Jurriaan van Diggelen, Marieke Peeters, Jonathan Barnhoorn, and Jasper van der Waa	262

## XVI Contents

in Oilfields	339
Yazan Mualla, Robin Vanet, Amro Najjar, Olivier Boissier, and Stéphane Galland	337
A Social Robot Assisting in Cognitive Stimulation Therapy	344
Swarm of Satellites: Multi-agent Mission Scheduler for Constellation of Earth Remote Sensing Satellites	348
Demonstration of Tools Control Center for Multi-agent Energy Systems Simulation	353
MATISSE 3.0: A Large-Scale Multi-agent Simulation System for Intelligent Transportation Systems	357
The SAIL Framework for Implementing Human-Machine Teaming Concepts	361
A Novel Web Services Infrastructure Leveraging Agent Oriented Middleware Environment for Realizing Agent Oriented Information System Models	366
A Demonstration of Simulation Modeling for SIoV  Recommendations System	371
Author Index	375