

Preface

Intelligent computing covers a hybrid palette of methods and techniques derived from classical artificial intelligence, computational intelligence, multi-agent systems a.o. Distributed computing studies systems that contain loosely-coupled components running on networked computers and that communicate and coordinate their actions by exchange of messages. The emergent field of intelligent distributed computing is expected to pose special challenges of adaptation and fruitful combination of results of both areas with a great impact on the development of new generation intelligent distributed information systems.

Intelligent Distributed Computing – IDC Symposium Series was started as an initiative of research groups from: (i) *Systems Research Institute, Polish Academy of Sciences in Warsaw, Poland* and (ii) *Software Engineering Department of the University of Craiova, Craiova, Romania*. IDC aims at bringing together researchers and practitioners involved in all aspects of intelligent distributed computing. IDC 2009 was the third event in this series and was hosted by *Department of Computer Science, University of Cyprus in Ayia Napa, Cyprus* during October 13-14, 2009.

This book represents the peer-reviewed proceedings of the IDC 2009. We received 47 submissions from 24 countries. Each submission was carefully reviewed by at least 3 members of the Program Committee. Acceptance and publication were judged based on the relevance to the symposium themes, clarity of presentation, originality and accuracy of results and proposed solutions. Finally 16 regular papers and 18 short papers were selected for presentation and were included in this volume, resulting in acceptance rates of 34.04 % for regular papers and 72.34 % for regular and short papers. The book contains also 2 invited papers authored by well-known professors in the field.

The 36 contributions in this book address many topics related to theory and applications of intelligent distributed computing, including: actor-agent systems, agent-based simulation, autonomic computing, computational service economies, defeasible reasoning, distributed data mining, distributed

logic programming, e-learning, emergent properties in complex systems, formal methods of intelligent distributed systems, genetic and evolutionary algorithms, information retrieval, knowledge fusion, multi-sensor networks, mobile ad hoc networks, mobile computing, ontologies and metadata, peer-to-peer networks, process modeling and integration, remote sensing distributed systems, secure e-payment systems, social networks, surveillance and disaster management applications, swarm computing, Web services and systems.

We would like to thank to Prof. Janusz Kacprzyk, editor of *Studies in Computational Intelligence* series and member of the Steering Committee for their kind support and encouragement in starting and continuing the IDC Symposium Series. We would like to thank to the Program Committee members for their work in promoting the event and refereeing submissions and also to all colleagues who submitted papers to the IDC 2009. We deeply appreciate the efforts of our invited speakers (in alphabetical order): Prof. Nicholas R. Jennings and Prof. Dana Petcu and thank them for their interesting lectures. Special thanks also go to members of the Department of Computer Science, University of Cyprus for their help with organizing the IDC 2009 event.

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