# **Advances in Intelligent Systems and Computing**

Volume 431

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Information Systems
Architecture and Technology:
Proceedings of 36th
International Conference
on Information Systems
Architecture and Technology –
ISAT 2015 – Part III





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# **Preface**

This four volume set of books includes the proceedings of the 2015 36th International Conference Information Systems Architecture and Technology (ISAT), or ISAT 2015 for short, held on September 20–22, 2015, in Karpacz, Poland. The conference was organized by the Department of Computer Science and Department of Management Systems, Faculty of Computer Science and Management, Wrocław University of Technology, Poland.

The International Conference Information Systems Architecture is organized by the Wrocław University of Technology from the seventies of the last century. The purpose of the ISAT is to discuss a state of the art of information systems concepts and applications as well as architectures and technologies supporting contemporary information systems. The aim is also to consider an impact of knowledge, information, computing, and communication technologies on managing the organization scope of functionality as well as on enterprise information systems design, implementation, and maintenance processes taking into account various methodological, technological, and technical aspects. It is also devoted to information systems concepts and applications supporting exchange of goods and services by using different business models and exploiting opportunities offered by Internet-based electronic business and commerce solutions.

ISAT is a forum for specific disciplinary research, as well as on multi-disciplinary studies to present original contributions and to discuss different subjects of today's information systems planning, designing, development, and implementation. The event is addressed to the scientific community, people involved in variety of topics related to information, management, computer, and communication systems, and people involved in the development of business information systems and business computer applications.

This year, we received 130 papers from 17 countries. The papers included in the four proceeding volumes published by Springer have been subject to a thoroughgoing review process by highly qualified peer reviewers. Each paper was reviewed by at least two members of Program Committee or Board of Reviewers. Only 74 best papers were selected for oral presentation and publication in the

vi Preface

36th International Conference Information Systems Architecture and Technology 2015 proceedings. The final acceptance rate was 57 %.

Professor Peter Nelsen (Denmark) presented his keynote speech on Some Insights from Big Data Research Projects. He also organized the special session on the advances in methods for managing complex planning environments.

The conference proceedings are divided into four volumes and present papers in the areas of managing complex planning environments, systems analysis and modeling, finance, logistics and market, artificial intelligence, knowledge-based management, Web systems, computer networks and distributed computing, high performance computing, cloud computing, multi-agent systems, Internet of Things, mobile systems, service-oriented architecture systems, knowledge discovery, and data mining.

We would like to thank the Program Committee and external reviewers, essential for reviewing the papers to ensure a high standard of the ISAT 2015 conference and the proceedings. We thank the authors, presenters, and participants of ISAT 2015; without them, the conference could not have taken place. Finally, we thank the organizing team for the efforts this and previous years in bringing the conference to a successful conclusion.

September 2015

Jerzy Świątek Leszek Borzemski Adam Grzech Zofia Wilimowska

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## ISAT 2015 Keynote Speaker

Professor Peter Nielsen, Aalborg University, Aalborg, Denmark Topic: Some Insights from Big Data Research Projects

## **ISAT 2015 Invited Session**

Advances in Methods for Managing Complex Planning Environments Chair: Peter Nielsen, Denmark

# Contents

Part 1 Mobile and SOA Systems	
Personal Wi-Fi Based Indoor Localization of Mobile Devices in Active Environment	3
Mariusz Fraś, Krzysztof Waśko and Tomasz Wierzowiecki	
The Methodology for Software Development to Support Decision  Making Processes	15
Adam Grzech and Arkadiusz Sławek	
Security Lock System for Mobile Devices Based on Fingerprint Recognition Algorithm	25
Dynamic Resource Management Middleware for Modern Service Oriented Systems	37
Part II High Performance and Cloud Computing	
Method of Solving the Volume Between Triangulated Mesh Surfaces	53
Accelerated Additive Algorithm with Lossy Data Compression Aleksandr Katkow	63
Swarm of Mobile Virtualization Containers	75
<b>Towards Healthcare Cloud Computing</b>	87

xiv Contents

Parallelization of Divide-and-Conquer Applications on Intel Xeon Phi with an OpenMP Based Framework Paweł Czarnul	99
Part III Knowledge Discovery and Data Mining	
Information Technology as an Indirect Factor Supporting Knowledge Management in Organization—Mediating Role of Organizational Structure	115
RT-PLG: Real Time Process Log Generator	127
Medical Data Unification Using Ontology-Based Semantic Model Structural Analysis	139
Decisions as Units of Organizational Knowledge to Manage Complexity	153
Decision Making Process for the Knowledge-Based Enterprise: Fuzzy Sets Theory Application to Strategic Management	163
Part IV Knowledge Based Management	
Computer Science PhD Program Evaluation Proposal  Based on Domain and Non-domain Characteristics  Jan Werewka and Michał Turek	177
Multi-project Scrum Methodology for Projects Using Software Product Lines	189
Test Scenarios and Validation Results of POP Methodology Grzegorz Kołaczek, Paweł Świątek, Jerzy Świątek, Krzysztof Brzostowski, Adam Grzech and Arkadiusz Sławek	201
Modeling Business Rules for Transportation Systems	211
Author Index	221