

Advances in Intelligent Systems and Computing

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Information Systems Architecture and Technology: Proceedings of 38th International Conference on Information Systems Architecture and Technology – ISAT 2017

Part III



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Preface

This three volume set of books includes the proceedings of the 2017 38th International Conference on Information Systems Architecture and Technology (ISAT), or ISAT 2017 for short, which will be held on September 17–19, 2017, in Szklarska Poręba, 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 on Information Systems Architecture has been 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 the 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 for 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 a 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 180 papers. The papers included in the three proceedings volumes published by Springer have been subject to a thoroughgoing review process by highly qualified peer reviewers. At least two members of Program Committee or Board of Reviewers reviewed each paper. The final acceptance rate was 56%. Program Chairs selected 101 best papers for oral presentation and

publication in the 38th International Conference on Information Systems Architecture and Technology 2017 proceedings.

The papers have been grouped into three volumes:

Part I—discouraging about topics including, but not limited to, Artificial Intelligence Methods, Knowledge Discovery and Data Mining, Big Data, Knowledge Discovery and Data Mining, Knowledge Based Management, Internet of Things, Cloud Computing and High Performance Computing, Distributed Computer Systems, Content Delivery Networks, Service Oriented Computing, and E-Business Systems, Web Design, Mobile and Multimedia Systems.

Part II—addressing topics including, but not limited to, System Modelling for Control, Recognition and Decision Support, Mathematical Modeling in Computer System Design, Service Oriented Systems and Cloud Computing and Complex process modelling.

Part III—dealing with topics including, but not limited to, Modeling of Manufacturing Processes, Modeling an Investment Decision Process, Management of Innovation, Management of Organization.

We would like to thank the Program Committee and external reviewers, essential for reviewing the papers to ensure a high standard of the ISAT 2017 conference and the proceedings. We thank the authors, presenters, and participants of ISAT 2017; without them, the conference could not have taken place. Finally, we thank the organizing team for the efforts in bringing the conference to a successful scientific event.

We devote ISAT 2017 to our friend and former ISAT Chair, Professor Adam Grzech.

September 2017

Leszek Borzemski
Jerzy Świątek
Zofia Wilimowska

In Memory of Our Friend and Past ISAT Chair

Professor Adam Grzech



November 2016

Professor DSc. Adam Grzech was born in 1954 in Dębica (Poland). He was graduated at the Wrocław University of Technology 1977—M.Sc. Electronic Engineering. He did his PhD at the Institute of Technical Cybernetics in 1979 and D.Sc. in technical sciences in the field of computer science in 1989 and received the title of full Professor in 2003 from Wrocław University of Technology.

He was an Assistant Professor at the Institute of Technical Cybernetics (1979–1982), an Assistant Professor at the Institute of Control and Systems Engineering (1982–1989), Associate Professor at the Institute of Control and Systems Engineering (1989–1993), a Professor at the Institute for Technical Informatics (1993–2006), and a Full Professor at the Institute of Computer Science, Faculty of Computer Science and Management at Wrocław University of Technology (since 2006).

He was an author and co-author of over 350 published research works. His areas of research were as follows: analysis, modeling, and design information and communication systems and networks. Since 2002, he was a Chief of Telecommunication Department. He was a leader of Scientific School on Information and Communication Systems and Networks. He was a promoter of the 10 completed Ph.D. theses.

During the years 1991–1993 and 1999–2002, he was a Director of the Institute of Control and Systems Engineering. Since 2002, he was a delegate of the Rector for Information Technology, and then during the years 2003–2005, he was a Vice President for Development at the Wrocław University of Technology and in 2002–2008 a member of the Senate of the Wrocław University of Technology. During the years 2005–2012, he was a Vice Dean of Computer Science and Management Faculty.

He was active in the work at the national, international committees of conferences and scientific journals. He was Co-chair of Information Systems Architecture and Technology (ISAT) and Systems Science International Conferences. Since 1982, he served as Scientific Secretary, and since 2006 Editor-in-Chief of the Science Systems journal published quarterly.

Professor Adam Grzech was a member of the Wrocław Scientific Society, the Polish Informatics Society, the Council of Information Technology, the Committee on Informatics of the Polish Academy of Sciences, and Technical Committee TC6 (Communication Systems) IFIP.



Leszek Borzowski
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ISAT 2017 Szklarska Poręba, September 17–19, 2017

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ISAT 2017 Special Session

Modeling of Manufacturing Processes
Anna Burduk (Chair), Poland

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