

Preface

The International conference on Business Informatics Research (BIR) focusses on fields of business informatics. In particular, it targets the research that bridges management and engineering aspects and facilitates communication between scientific and practical applications. This volume contains publications presented at workshops and doctoral consortium of the BIR 2016 conference, organised in Prague, Czech Republic, 14-16 September, 2016.

This volume includes publications presented at the 4th International Workshop on Intelligent Educational Systems, Technology-enhanced Learning and Technology Transfer Models (INTEL-EDU 2016), the 1st Workshop on Managed Complexity (ManComp 2016), the 9th Workshop on Information Logistics and Applications of Semantic Technologies (ILOG 2016), and the doctoral consortium of the 15th International Conference on Business Informatics Research (BIR 2016).

The 4th International Workshop on Intelligent Educational Systems, Technology-enhanced Learning and Technology Transfer Models (INTEL-EDU 2016) was organised by Janis Grundspenkis, Leonids Novickis and Egils Ginters. INTEL-EDU 2016 continues the series of workshops held in 2009, 2011 and 2012. The main aim of the INTEL-EDU is to provide an international platform for presentation of research on intelligent educational systems theory, development of advanced software tools and technologies, their innovative applications, and dissemination and technologies transfer. Eleven papers were presented this year, devoted to the representation of knowledge structures in educational collaborative systems, mobile-assisted education, adaptive intelligent tutoring systems based on learner models and emotion recognition, geospatial data based environment, simulation training, learning process assessment, and development and implementation of innovation strategies.

The 1st Workshop on Managed Complexity (ManComp 2016) was organised by Marite Kirikova and Peter Forbrig. The workshop had its focus on managing complexity. Managing complexity has a long tradition for algorithms and general problems. One well known strategy used is “divide and conquer”. Managing complexity is important even for algorithms of problems with small size. However nowadays informatics require managing complexity at different levels and configurations of social, physical, enterprise, software and hardware systems. The workshop focused on approaches and methods for managing complexity in the domain of applied informatics that may concern an interplay of systems and ecosystems of various sizes and substance. Its purpose was to share and transfer knowledge on complexity identification, representation, controlling and reduction as well as to exploit possible synergies in development of innovative complexity handling strategies, approaches, and methods. The goal of the workshop in which seven papers were presented was to bring together researchers and practitioners to discuss theoretical approaches or real-life case studies featuring success and/or failure stories in managing complexity.

The 9th Workshop on Information Logistics and Applications of Semantic Technologies (ILOG 2016) was organised by Kurt Sandkuhl and Ulf Seigerroth. The workshop focuses on approaches, methods, technologies and solution for reducing information overflow and for improving information flow in organizations. Knowledge-intensive industry and service sectors, public organizations and governmental bodies are dependent on accurate and timely information supply for efficient and high quality processes and services. Intelligent information supply has become an important issue that is characterized by just-in-time, demand-oriented and context-sensitive information. The digitization of businesses including Internet-of-Things applications (IoT), Cyber-Physical Systems (CPS) and big data (BD) challenges pose new requirements to optimized information supply and emphasize the importance of information logistics solutions.

A specific focus of this year’s ILOG edition in which 6 papers were presented is on semantic technologies, like ontologies, semantic nets, semantic web standards and other knowledge technologies.

This year’s BIR Doctoral Consortium was organized by Tomáš Pitner. The BIR 2016 DC provided doctoral students with a good place for receiving an early feedback on their progress from the field experts and experienced researchers. This year four doctoral papers were presented. The discussed topics included Enterprise Architecture (EA), Business Process Management (BPM), object modeling, advanced metering management and smart grid related legislation.

We would like to thank all Workshop Chairs and their Program Committee members for their diligence in selecting the papers and ensuring their high scientific quality.

Björn Johansson
Filip Vencovský
September 2016

Organisation

BIR 2016 Workshop Chair

Björn Johansson Department of Informatics, School of Economics and Management,
Lund University, Sweden

BIR 2016 Doctoral Consortium Chair

Tomáš Pitner Masaryk University, Czech Republic

9th Workshop on Information Logistics and Applications of Semantic Technologies (ILOG 2016)

ILOG 2016 Workshop Co-Chairs

Kurt Sandkuhl University of Rostock, Germany
Ulf Seigerroth Jönköping University, Sweden

ILOG 2016 Workshop Committee Members

Clara Bassano	“Parthenope” University of Naples, Italy
Andreas Billig	Fraunhofer ISST Berlin, Germany
Eva Blomqvist	CNR-ISTC, Italy
Susanne Busse	FH Brandenburg, Germany
Francesco Calza	“Parthenope” University of Naples, Italy
Olov Candell	Saab Group, Sweden
Albertas Čaplinskas	Institute of Mathematics and Informatics, Lithuania
Wolfgang Deiters	Fraunhofer ISST, Germany
Barbara Dinter	University of Chemnitz, Germany
Henrik Eriksson	Linköping University, Sweden
Janis Grabis	Riga Technical University, Latvia
Darek Haftor	Linnus University, Sweden
Yanbo Han	Inst. Computing Techn., Chin. Acad. of Science, China
Ramin Karim	Luleå University of Technology, Sweden
Marite Kirikova	Riga TU, Latvia
Ralf D. Kutsche	TU Berlin, Germany

1st Workshop on Managed Complexity (ManComp 2016)

ManComp 2016 Workshop Co-Chairs

Marite Kirikova Riga Technical University, Latvia
Peter Forbrig University of Rostock, Germany

ManComp 2016 Workshop Committee Members

Clara Bassano	Parthenope University of Naples, Napoli, Italy
Albertas Chaplinskis	Vilnius University, Lithuania
Bertrand David	Ecole Centrale Lyon, France
Ebba Þóra Hvannberg	Iceland University, Iceland
Paul Johanneson	Stockholm University, Sweden
Marite Kirikova	Riga Technical University Latvia
Christoph Kolski	University Valenciennes, France
Paula Kotze	CSIR Meraka Institute Pretoria, South Africa
Edward Lewis	UNSW Canberra, Australia
Philippe Palanque	Paul Sabatier University Toulouse, France
Malgorzata Pankowska	Katowice University, Poland
Jose Perez Rio	Universidad de Valladolid, Spain
Monique Snoeck	Leuven University, Belgium
Chris Stary	University of Linz, Austria
Marco Winckler	Paul Sabatier University Toulouse, France

4th International Workshop on Intelligent Educational Systems, Technology-enhanced Learning and Technology Transfer Models (INTEL-EDU 2016)

INTEL-EDU 2016 Workshop co-chairs

Janis Grundspenkis	Riga Technical University, Latvia
Leonids Novickis	Riga Technical University, Latvia
Egils Ginters	Riga Technical University, Latvia

INTEL-EDU 2016 Program Committee Members

Michael Boronowski	University of Bremen / TZI, Germany
Tanja Woronowics	University of Bremen / TZI, Germany
Abdel-Badeeh M.Salem	Ain Shams University, Egypt
Krzysztof Amborski	Warsaw University of Technology, Poland
Egils Ginters	Riga Technical University, Latvia
Antanas Mitasiunas	MITSOFT Ltd., Lithuania
Jurijs Merkurjevs	Riga Technical University, Latvia
Boriss Mishnev	Transport and Telecommunication Institute, Latvia
Leonids Novickis	Riga Technical University, Latvia
Boriss Krassi	Delta Cygni Lab, Finland
Natalija Prokofjeva	Riga Technical University, Latvia
Tatiana Rikure	EU Agency EASO, Malta
Marco Schumann	HSB Wernigerode, Germany
Vjacheslav Shitikov	Riga Technical University, Latvia
Maris Vitins	University of Latvia, Latvia
Marina Uhanova	Riga Technical University, Latvia
Karel Charvat	Czech Centre for Science and Society, Czech Republic
Marjan Gusev	University Sts Cyril and Methodius, Macedonia

Technical Secretary

Viktorija Ponomarenko	Riga Technical University, Latvia
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