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Advances in Databases and Information Systems

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Preface

These proceedings contain 27 contributed papers presented at the 16th East-European Conference on Advances in Databases and Information Systems (ADBIS 2012), held on September 18–21, 2012, in Poznań, Poland.

The ADBIS 2012 conference continues the series of ADBIS conferences organized every year in different countries of Eastern and Central Europe, beginning in St. Petersburg (Russia, 1997), Poznań (Poland, 1998), Maribor (Slovenia, 1999), Prague (Czech Republic, as a joint ADBIS-DASFAA conference, 2000), Vilnius (Lithuania, 2001), Bratislava (Slovakia, 2002), Dresden (Germany, 2003), Budapest (Hungary, 2004), Tallinn (Estonia, 2005), Thessaloniki (Greece, 2006), Varna (Bulgaria, 2007), Pori (Finland, 2008), Riga (Latvia, 2009), Novi Sad (Serbia, 2010), and Vienna (Austria, 2011). The main objective of the series of ADBIS conferences is to provide a forum for the dissemination of research achievements as well as to promote interaction and collaboration between the database and information systems research communities from Central and East European countries and the rest of the world. The conferences are initiated and supervised by an international Steering Committee, which consists of representatives from Armenia, Austria, Bulgaria, Czech Republic, Greece, Estonia, Finland, Germany, Hungary, Israel, Latvia, Lithuania, Poland, Russia, Serbia, Slovakia, Slovenia, Ukraine, and Italy.

The ADBIS 2012 conference attracted 122 paper submissions from Algeria, Argentina, Belgium, Bosnia and Herzegovina, Brazil, Colombia, Czech Republic, Egypt, Estonia, Finland, France, FYR Macedonia, Germany, Greece, Hungary, India, Iran, Italy, Japan, Latvia, Poland, Romania, Russia, Slovakia, Spain, Sweden, Sultanate of Oman, The Netherlands, Tunisia, UK, and USA. In a rigorous reviewing process the international program committee of 74 members from 31 countries selected 32 contributions for publishing in a separate volume of proceedings by Springer-Verlag in the Lecture Notes in Computer Science series and 27 contributions for publishing in this volume. Typically, the selected papers cover a wide spectrum of topics in the database and information systems field, including database theory, database architectures, query languages, query processing and optimization, design methods, data integration, view selection, nearest neighbor searching, analytical query processing, indexing and caching, concurrency control, distributed

systems, data mining, data streams, ontology engineering, social networks, multi-agent systems, business processes modeling, knowledge management, and application oriented topics like RFID, XML, and data on the web.

Additionally, ADBIS 2012 aimed to create conditions for experienced researchers to impart their knowledge and experience to the young researchers participating at the Doctoral Consortium organized in association with the ADBIS 2012 conference. Moreover, this year, the 6 following workshops associated with the conference were organized: GPUs in Databases (GID), Mining Complex and Stream Data (MCSD), OAIS: Ontologies meet Advanced Information Systems, Second Workshop on Modeling Multi-commodity Trade: Data models and processing (MMT), Social Data Processing, Social and Algorithmic Issues in Business Support. The accepted workshop papers were published in a separate volume by Springer-Verlag in the Advances in Intelligent Systems and Computing series.

We would like to express our thanks to all people who contributed to the success of ADBIS 2012. We thank the authors, who submitted papers to the conference, the program committee members and external reviewers for ensuring the quality of the scientific program. We thank the colleagues of our universities for their help in the conference and workshops organization, all members of the local organizing team in Poznań for giving their time and expertise to ensure the success of the conference. We express our gratitude to Alfred Hofmann, from Springer-Verlag, for accepting these proceedings for the LNCS series and to Professor Janusz Kacprzyk, from the Polish Academy of Sciences, for accepting the short contributions and workshops proceedings in the Advances in Intelligent Systems and Computing series. We thank the Steering Committee and, in particular, its chair, Leonid Kalinichenko, for their help and guidance. Last but not least, we thank the Sponsors and Supporters of our conference, including: **Allegro Group, the City of Poznań, IBM, Roche, Microsoft, Targit, Samsung, Edge Solutions, ITelligence**. Without their financial support the high quality of the conference proceedings and events would not be possible to achieve.

September 2012

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