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Advances in Databases and Information Systems

16th East European Conference, ADBIS 2012
Poznań, Poland, September 18-21, 2012
Proceedings



Springer

Volume Editors

Tadeusz Morzy
Robert Wrembel
Poznań University of Technology
Institute of Computing Science
Piotrowo 2, 60-965 Poznań, Poland
E-mail: {tadeusz.morzy; robert.wrembel}@put.poznan.pl

Theo Härder
University of Kaiserslautern
Department of Computer Science, AG DBIS
P.O. Box 3049, 67653 Kaiserslautern, Germany
E-mail: haerder@informatik.uni-kl.de

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Preface

These proceedings contain 32 scientific contributions presented at the 16th East-European Conference on Advances in Databases and Information Systems (ADBIS 2012), held during September 18–21, 2012, in Poznań, Poland.

The ADBIS 2012 conference continued 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 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 of the Central and East European countries and the rest of the world. The conferences are initiated and supervised by an international Steering Committee consisting 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. Using a rigorous reviewing process, the international Program Committee consisting of 74 members from 31 countries selected these 32 contributions for publication in this *LNCS* volume. Moreover, 27 additional papers were selected as short contributions and have been published in a special volume of the *Advances in Intelligent Systems and Computing* series edited by Springer. Topically, the selected papers cover a wide spectrum of issues concerning the area of database and information systems, 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 process 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 share their knowledge and experience with the young researchers participating in the Doctoral Consortium organized in association with the

ADBIS 2012 conference. Moreover, this year, the following six workshops associated with the ADBIS 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. Each workshop had its own international Program Committee. The accepted papers were published by Springer in the *Advances in Intelligent Systems and Computing* series.

We would like to express our thanks to everyone 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 concerning the conference and workshops organization, all members of the local organization team at Poznań for dedicating their time and expertise to ensure the success of the conference. We express our gratitude to Alfred Hofmann, Springer, for accepting these proceedings for the *LNCS* series and to Janusz Kacprzyk, 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 these *LNCS* proceedings and the conference events would not have been possible to achieve.

September 2012

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