

2012 International Conference on Data and Knowledge Engineering

Wu Yi Shan, Fujian, China November 21-23, 2012

The International Conference on Data and Knowledge Engineering (ICDKE) is a leading international forum for researchers, developers, and end-users to explore cutting-edge ideas and results, and to exchange techniques. The missions of ICDKE are to share novel research solutions to problems of today's information society that fulfil the needs of heterogeneous applications and environments and to identify new issues and directions for future research and development work.

Following the great success of ICDKE '11, we are now seeking submissions for ICDKE '12 from academia and industry presenting research on all practical and theoretical aspects of advanced data-intensive applications, data and knowledge engineering as well as case studies and implementation experiences. All topic areas related to data and knowledge engineering are of interest and in scope. ICDKE '12 gives researchers and practitioners a unique opportunity to share their perspectives with others interested in the various aspects of engineering.

The scope of ICDKE '12 is broad and encompasses diverse topics in data and knowledge management. The topics of interest to ICDKE '12 include (but are not limited to):

- Data Models and Languages
- Database Indexing and Search
- Query Processing and Optimisation
- Data Mining and Knowledge Discovery
- Semi-structured and Unstructured Data Management
- Data Quality
- Data Integration
- Information Extraction and Retrieval
- Data Privacy and Security
- Workflows and Data Provenance
- Performance of Data Management
- Web Services and Semantic Web
- Web Intelligence
- P2P, Mobile and Ubiquitous Data Management
- Fuzzy, Uncertain and Probabilistic Databases
- Scientific Databases
- Spatial, Temporal & Multimedia Databases
- Stream Databases
- Parallel and Distributed Databases
- Grid and Cloud Computing
- Bioinformatics and Health Informatics
- Enterprise and Business Data Management

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Preface

The International Conference on Data and Knowledge Engineering (ICDKE) 2012 was held in WuyiShan, Fujian, China, during November 21–23, 2012, jointly with the 6th International Conference on Network and System Security (NSS 2012) and the 5th International Conference on Internet and Distributed Computing Systems (IDCS 2012). ICDKE 2012 was organized and supported by the School of Mathematics and Computer Science, Fujian Normal University, China, and the Faculty of Sciences, University of Southern Queensland, Australia.

ICDKE is a leading international forum for researchers, developers, and end-users to explore cutting-edge ideas and results for the problems in the data and knowledge fields, and to exchange related techniques and methodologies. The missions of ICDKE are to share novel research solutions to problems of today's information society that fulfill the needs of heterogeneous applications and environments, as well to identify new issues and directions for future research and development.

The First International Conference on Data and Knowledge Engineering (ICDKE 2010) was held in Melbourne, Australia, during September 1–3, 2010; the Second International Conference on Data and Knowledge Engineering (ICDKE 2011) was held in Milan, Italy, during September 6–8, 2011. Following the great success of ICDKE 2010 and 2011, the Third International Conference on Data and Knowledge Engineering (ICDKE 2012) was held in Wuyishan, China, providing a forum for academics and industry practitioners to present research on all practical and theoretical aspects of advanced data-intensive applications, data and knowledge engineering as well as case studies and implementation experiences. ICDKE 2012 gave researchers and practitioners a unique opportunity to share their perspectives with others interested in the various aspects of engineering.

ICDKE 2012 attracted 53 submissions from 11 countries and regions: Australia, Brazil, China, Egypt, France, Germany, Hong Kong, Iran, Ireland, Pakistan, and Tunisia. The review process was rigorous. Each paper was reviewed by at least two reviewers, and most of them reviewed by three to four reviewers. The Program Committee accepted 13 submissions as full papers (giving an approximate acceptance rate of 25%) and seven short papers for inclusions in the proceedings.

We would like to thank the members of the Program Committee and Organizing Committee who contributed to the success of the conference. Last, but certainly not least, our thanks go to all authors and attendees. We hope you enjoy the conference proceedings!

November 2012

Yang Xiang
Mukaddim Pathan
Xiaohui Tao
Hua Wang

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