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# Intelligent Information and Database Systems

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# Preface

ACIIDS 2012 was the fourth event of the series of international scientific conferences for research and applications in the field of intelligent information and database systems. The aim of ACIIDS 2012 was to provide an international forum for scientific research in the technologies and applications of intelligent information, database systems and their applications. ACIIDS 2012 took place March 19–21, 2012, in Kaohsiung, Taiwan. It was co-organized by the National Kaohsiung University of Applied Sciences (Taiwan), National Taichung University of Education (Taiwan), Taiwanese Association for Consumer Electronics (TACE) and Wroclaw University of Technology (Poland), in cooperation with the University of Information Technology (Vietnam), International Society of Applied Intelligence (ISAI), and Gdynia Maritime University (Poland). ACIIDS 2009 and ACIIDS 2010 took place in Dong Hoi and Hue in Vietnam, respectively, and ACIIDS 2011 in Deagu, Korea.

We received more than 472 papers from 15 countries over the world. Each paper was peer reviewed by at least two members of the International Program Committee and International Reviewer Board. Only 161 papers with the highest quality were selected for oral presentation and publication in the three volumes of ACIIDS 2012 proceedings.

The papers included in the proceedings cover the following topics: intelligent database systems, data warehouses and data mining, natural language processing and computational linguistics, Semantic Web, social networks and recommendation systems, collaborative systems and applications, e-business and e-commerce systems, e-learning systems, information modeling and requirements engineering, information retrieval systems, intelligent agents and multi-agent systems, intelligent information systems, intelligent Internet systems, intelligent optimization techniques, object-relational DBMS, ontologies and knowledge sharing, semi-structured and XML database systems, unified modeling language and unified processes, Web services and Semantic Web, computer networks and communication systems.

Accepted and presented papers highlight new trends and challenges of intelligent information and database systems. The presenters showed how new research could lead to novel and innovative applications. We hope you will find these results useful and inspiring for your future research.

We would like to express our sincere thanks to the Honorary Chairs: Cheng-Qi Zhang (University of Technology Sydney, Australia), Szu-Wei Yang (President of National Taichung University of Education, Taiwan) and Tadeusz Wieckowski (Rector of Wroclaw University of Technology, Poland) for their support.

Our special thanks go to the Program Chairs, all Program and Reviewer Committee members and all the additional reviewers for their valuable efforts in the review process, which helped us to guarantee the highest quality of the

selected papers for the conference. We cordially thank the organizers and chairs of special sessions, which essentially contribute to the success of the conference.

We would also like to express our thanks to the keynote speakers Jerzy Swiatek from Poland, Shi-Kuo Chang from the USA, Jun Wang, and Rong-Sheng Xu from China for their interesting and informative talks of world-class standard.

We cordially thank our main sponsors, National Kaohsiung University of Applied Sciences (Taiwan), National Taichung University of Education (Taiwan), Taiwanese Association for Consumer Electronics (TACE) and Wroclaw University of Technology (Poland). Our special thanks are due also to Springer for publishing the proceedings, and other sponsors for their kind support.

We wish to thank the members of the Organizing Committee for their very substantial work, especially those who played essential roles: Thou-Ho Chen, Chin-Shuih Shieh, Mong-Fong Horng and the members of the Local Organizing Committee for their excellent work.

We cordially thank all the authors for their valuable contributions and the other participants of this conference. The conference would not have been possible without their support.

Thanks are also due to the many experts who contributed to making the event a success.

Jeng-Shyang Pan  
Shyi-Ming Chen  
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