

# International Journal of Web Services Research

July-September 2014, Vol. 11, No. 3

## Table of Contents

### EDITORIAL PREFACE

- iv **Privacy on Services Selection and Infrastructure 2014, Shenzhen, China**  
*Liang-Jie Zhang, Kingdee International Software Group Co. Ltd., Shenzhen, China*

### RESEARCH ARTICLES

- 1 **Tx-FAITH: A Transactional Framework for Failure Tolerant Execution of Hierarchical Long-Running Transactions in Business Applications**  
*Kanchana Rajaram, Department of Computer Science and Engineering, SSN College of Engineering, Anna University, Tamil Nadu, India*  
*Chitra Babu, Department of Computer Science and Engineering, SSN College of Engineering, Anna University, Tamil Nadu, India*  
*Arun Adiththan, Department of Computer Science, City University of New York, New York, NY, USA*
- 27 **Redundancy-Based Reliability Enhancement for Composite Services**  
*Zhongjie Wang, School of Computer Science and Technology, Harbin Institute of Technology, Harbin, China*  
*Shaopeng Wang, School of Computer Science and Technology, Harbin Institute of Technology, Harbin, China*  
*Dianhui Chu, School of Computer Science and Technology, Harbin Institute of Technology, Harbin, China*  
*Xiaofei Xu, School of Computer Science and Technology, Harbin Institute of Technology, Harbin, China*
- 52 **A Sub-Chain Ranking and Recommendation Mechanism for Facilitating Geospatial Web Service Composition**  
*ZhangBing Zhou, School of Information Engineering, China University of Geosciences, Beijing, China*  
*Zehui Cheng, School of Information Engineering, China University of Geosciences, Beijing, China*  
*Ke Ning, National Enterprise Internet Services Supporting Software Engineering Research Center, China*  
*Wenwen Li, School of Geographical Sciences and Urban Planning, Arizona State University, Tempe, AZ, USA*  
*Liang-Jie Zhang, National Enterprise Internet Services Supporting Software Engineering Research Center, China*
- 76 **Efficiently Compositing and Optimizing the Quality of Heterogeneous Services**  
*Hanhua Chen, Key Laboratory of Services Computing Technology and System, School of Computer Science and Technology, Huazhong University of Science and Technology, Wuhan, China*  
*Hai Jin, Key Laboratory of Services Computing Technology and System, School of Computer Science and Technology, Huazhong University of Science and Technology, Wuhan, China*
- 96 **Measuring the Service Quality of E-Commerce and Competitive Strategies**  
*Shu-Fong Chang, Business School, Nankai University, Tianjin, China*  
*Jen-Chi Chang, Business School, Nankai University, Tianjin, China*  
*Kuo-Hua Lin, Business School, Nankai University, Tianjin, China*  
*Bin Yu, Business School, Nankai University, Tianjin, China*  
*Yu-Cheng Lee, Department of Technology Management, Chung-Hua University, Hsinchu, Taiwan*  
*Sang-Bing Tsai, Management School, Zhongshan Institute, University of Electronic Science and Technology of China, Guangdong, China & Law/Business School, Nankai University, Tianjin, China*  
*Jie Zhou, TEDA College, Nankai University, Tianjin, China*  
*Chao Wu, Business School, Nankai University, Tianjin, China*  
*Zi-Chun Yan, Business School, Nankai University, Tianjin, China*

### Copyright

The **International Journal of Web Services Research (IJWSR)** (ISSN 1545-7362; eISSN 1546-5004), Copyright © 2014 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.

The *International Journal of Web Services Research* is indexed or listed in the following: ABI/Inform; ACM Digital Library; Bacon's Media Directory; Burrelle's Media Directory; Cabell's Directories; Compendex (Elsevier Engineering Index); CSA Illumina; Current Contents®/Engineering, Computing, & Technology; DBLP; DEST Register of Refereed Journals; Gale Directory of Publications & Broadcast Media; GetCited; Google Scholar; INSPEC; Journal Citation Reports/Science Edition; JournalTOCs; Library & Information Science Abstracts (LISA); MediaFinder; Norwegian Social Science Data Services (NSD); PubList.com; Science Citation Index Expanded (SciSearch®); SCOPUS; The Index of Information Systems Journals; The Standard Periodical Directory; Thomson Reuters; Ulrich's Periodicals Directory; Web of Science