

Editorial Preface

Wide Application of Services Computing

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This regular issue of the International Journal of Web Services Research (IJWSR) collects four papers.

In the first paper entitled “Applying Formal Methods to SOA and SaaS Service Compositions for ERP Systems,” Benabdelhafid et al. focus on an issue of lacking empirical research about service (SOA and/or SaaS) based ERP systems. They proposed a service-based framework that enables manufacturers to identify defects in ERP systems earlier in the development process aiming to decrease costs and development time. Some initial results conducted in the healthcare sector and quantifying some of the gains delivered by the framework are reported.

In the second paper entitled “A Tool to Extract Name Entity Recognition from Using Big Data in Banking Sectors,” Janarishsaju et al. focus on extract the necessary information using information filtering in several domains. They proposed a three-layered neural network approach to improve the named entity recognition framework to extract valuable data from unstructured natural language texts. Experimental results in an R platform showed that the learned model could yield a good performance.

In the third paper entitled “CATS-CAE Reflective Middleware Framework for Adapting Context-Aware Transactional Services: Using a Hybrid Policy-Based Approach,” Ettazi et al. provided a complete solution that addresses the challenges of the adaptability of context-aware transactional services (CATS) in pervasive environments. They designed a new framework CATS-CAE, which offers a comprehensive structure of multiple component chains. The performed tests showed that the adaptation approach ran well in the lab environment.

In the fourth paper entitled “DSML4CS: An Executable Domain-Specific Modeling Language for Co-Simulation Service in CPS,” Du et al. focus on the challenges in modeling and simulation of heterogeneous CPS due to its hybrid and heterogenous characteristic. They proposed an executable Domain Specific Modeling Language for Co-Simulation (DSML4CS) to model the co-simulation of CPS. At the end of this paper, a temperature control system in energy-aware building is illustrated as a case study to show the usability of DSML4CS.

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Liang-Jie (LJ) Zhang received his Ph.D. on Pattern Recognition and Intelligent Control from Tsinghua University. Currently, he is the Chief Technology Officer (CTO) and Senior Vice President of Kingdee International Software Group Company Limited. Dr. Zhang has published more than 160 technical papers in journals, book chapters, and conference proceedings. He has 50 granted patents. He was elected as an IEEE Fellow in 2011, and in the same year won the Technical Achievement Award “for pioneering contributions to Application Design Techniques in Services Computing” from IEEE Computer Society. He has served as the President of Shenzhen Big Data Alliance since 2013. Dr. Zhang is the Editor-in-Chief of the International Journal of Web Services Research (IJWSR).