## **Journal of Software**

ISSN 1796-217X

Volume 8, Number 1, January 2013

## **Contents**

REGULAR PAPERS	
Requirements Engineering and Business/IT Alignment: Lessons Learned Azmat Ullah and Richard Lai	1
A Robust Collaborative Filtering Recommendation Algorithm Based on Multidimensional Trust Model  Dongyan Jia, Fuzhi Zhang, and Sai Liu	11
Estimation of the Number of Distinct Values over Data Stream Based on Compound Sliding Window Yingli Zhong, Jinghua Zhu, Meirui Ren, and Yan Yang	19
Supplier's Efficiency and Performance Evaluation using DEA-SVM Approach Bo Jiang, Wei Chen, Hua Zhang, and Weifeng Pan	25
Facilitated Collaboration in CSCL based University CourseA Longitudinal Case Study in China Xusen Cheng, Yuanyuan Yu, and Zhao Li	31
Translation Algorithm for Negative Literals in Conformant Planning Weisheng Li, Jiao Du, and Lifang Zhou	39
A New Framework based on Cognitive Psychology for Knowledge Discovery Jun Yang and Yinglong Wang	47
A Structured Information Extraction Algorithm for Scientific Papers based on Feature Rules Learning Jianguo Chen and Hao Chen	55
A Video Smoke Detection Algorithm Based on Wavelet Energy and Optical Flow Eigen-values Wen-Hui Li, Bo Fu, Lin-Chang Xiao, Ying Wang, and Pei-Xun Liu	63
Cascade Classifier Using Combination of Histograms of Oriented Gradients for Rapid Pedestrian Detection  Wenhui Li, Yifeng Lin, Bo Fu, Mingyu Sun, and Wenting Wu	71
Effectiveness Assessment on Urban Planning Analyzed in Virtual Reality Environments Yan Zhang, Xun Zhang, and Li Lin	78
Research on the Expected Synchronization of Autonomous System Wenxian Xiao, Zhen Liu, Wenlong Wan, and Xiali Zhao	85
Research on the Expected Synchronization and Anticipating Synchronization of Time-delay Systems <i>Zhen Liu, Wenxian Xiao, Xiali Zhao, and Wenlong Wan</i>	93
Research on Operation Arrangement for Waiting Hall in Railway Passenger Station Changfeng Zhu, Haijun Li, and Qingrong Whang	101
An Effective Computational Algorithm for a Class of Linear Multiplicative Programming Jingben Yin, Yutang Liu, Baolin Ma, and Dongwei Shi	110

An Effective Algorithm for Globally Solving a Class of Linear Fractional Programming Problem Baolin Ma, Lei Geng, Jingben Yin, and Liping Fan	118
A New Fractional Order Chaotic System and Its Compound Structure Xinjie Li, Wenxian Xiao, Zhen Liu, Wenlong Wan, and Tiesong Hu	126
Study of Clustering Algorithm based on Fuzzy C-Means and Immunological Partheno Genetic Hongfen Jiang, Yijun Liu, Feiyue Ye, Haixu Xi, Mingfang Zhu, and Junfeng Gu	134
Special Event Time Predication for Mine Belt Conveyor Based on Hidden Markov Model Xiaobin Li, Jiansheng Qian, and Zhikai Zhao	142
Programming Dynamic and Open Multi-Agent Systems with Organization Metaphor Cuiyun Hu, Xinjun Mao, and Yin Chen	151
SNS Privacy Protection based on the ELM Integration and Semi-supervised Clustering Kunlun Li, Zhe Wang, Chao Ma, and Song Song	160
Blind Measurement of Blocking Artifacts of Images Based on Edge and Flat-region Detection Yanhui Xia, Zhengyou Wang, Wan Wang, Jin Wang, Zheng Wan, and Weisi Lin	168
A Personalization Recommendation Algorithm for E-Commerce Hui Li, Shu Zhang, and Xia Wang	176
A Method of Hot Topic Detection in Blogs Using N-gram Model Xiaodong Wang and Juan Wang	184
Statistical Methods based on Semantic Similarity of Topics Related to Microblogging Dongqing Wu, Fengjian Yang, and Chaolong Zhang	192
Structural Join in the 'XSQS' Native XML Database Dong Li, Xiuyu Lu, Xifeng Huang, and Wenhao Chen	200
Multi-band Vector Wavelet Transformation based Multi-Focus Image Fusion Algorithm Yihua Lan, Haozheng Ren, Yong Zhang, and Chih-cheng Hung	208
A Combinatorial K-View Based Algorithm for Texture Classification Yihua Lan, Yong Zhang, and Haozheng Ren	218
SAR Image Segmentation Based on Fuzzy Region Competition Method and Gamma Model Cunliang Liu, Yongguo Zheng, Zhenkuan Pan, Jinming Duan, and Guodong Wang	228
Anything is Service: Using LIR-OSGi and R2-OSGi to Construct Ubiquitous Service Network <i>Jinzhao Liu, Dan Wang, Yu Chen, and Yongqiang Lv</i>	236
An Extension of Distributed Dynamic Description Logics for the Representation of Heterogeneous Mappings  Zhuxiao Wang, Jing Guo, Fei Chen, Kehe Wu, and Peng Wang	243
Design and Optimization of Cloud-Oriented Workflow System Lei Mao, Yongguo Yang, and Hui Xu	251