

Contents

Editorial i

Research

Research and Practice of Characteristic Teaching Resources Sharing and Interactive Platform-
Wu Yun 59

CMCCR: Classification Based on Multiple Class-Correlation Rules-
Zhongmei Zhou, Xuejun Wang, Guiying Pan 64

Review on Virtual Human's Affective Model and Related Applied Algorithm-
Zhao Liang 71

SERCID: A Secure Mechanism for Data Collection in Wireless Sensor Networks-
Yuxin Mao 79

Mechanism Analysis of Protocols Based on the FPCPN Model-
Wei Wang 86

A Feature Points Matching Algorithm Based on Wavelet Analysis-
Wang Lijun, Xu Xin, Xu Guang 94

An Equivalent Circuit Model for On-chip Inductors with Gradual Changed Structure-
Xi Li, Zheng Ren, Yanling Shi 99

Story Segmentation of Xinwenlianbo based on Three-level Criterion of Content Analysis-
Ji-chen Yang 104

A Taxonomic relationship Learning Approach for Log Ontology Content Event-
Sun Ming, Shang Qinghong, Chen Bo 109

Low Overhead Geometric On-demand Routing Protocol for Mobile Ad Hoc Networks-
Chang Su, Lili Zheng, Xiaohai Si, Fengjun Shang 114

A Constrained Optimization Evolutionary Algorithm Based on Membrane Computing-
Haizhu Chen, Jianyun Lu 121

A Comparison of Pattern Classification Approaches for Structural Damage Identification-
Zhou Qingqing, Zhou Qifeng, Ning Yongpeng, Yang Fan, Lei Jiayan, Tian Run, Liu Minda 126

Semantic-Oriented Integration and Simulation-based Analysis Approach for Healthcare
Information Systems (HIS)-
Li-li SONG, Jun XIE, Zheng-dong HUANG 131

Research on Face Recognition Based on Wavelet Transform and PCA-ANN-
Wang Yuanzhi, Luo Xiao 136

Research and Analysis of Improved Extraction Based on Information Processing Technology-
Yongqin Wei, Yinjing Guo 142

Exploration in to Reform in Computer Application Technology Major in Higher Vocational Colleges
Based on Tripartite Linkage-
Tian Qiming 147

Book Review 153

Conference Notification 154

- The Fifth International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2012)
- The Fourth International Conference on Networked Digital Technologies (NDT 2012)
- Seventh International Conference on Digital Information Management (ICDIM 2011)

Special Issue Editorial

Progress in Information Technologies and Systems for Applied Sciences and Engineering

Nowadays, information and technologies are playing a more and more important role in applied sciences and engineering. There is a tendency that researchers are going to mash up information technologies with applied sciences and engineering to generate more complex applications. When we use information technologies and systems to support applied sciences and engineering, information technologies themselves are also enhanced and promoted as a result.

By realizing the challenges and opportunities in this field, we planned to bring the special issue on the “***Progress in Information Technologies and Systems for Applied Sciences and Engineering***”. The purpose of this current issue is to present a collection of high-quality academic papers that cover recent advances in system, architecture, algorithms, modeling and other core issues as well as peripheral applications in the field. This issue has eleven papers selected from the pool of large number of submissions.

Papers in this special issue address many up-to-date efforts for information technologies and systems such as e-learning, network protocols and modeling, web ontology, evolutionary algorithms and data mining algorithms, information processing technologies, healthcare information systems, etc. We believe that the issues addressed in the papers have large impact on applied sciences and engineering. We are thankful to all the contributors for their high quality submissions and timely revision. We are also thankful to the editors and the publishers of the ***Journal of Digital Information Management***.

Prof. Wenya Tian, Zhejiang Economic & Trade Polytechnic, China

Dr. Mande Xie, Associate Professor, Zhejiang Gongshang University, China

The Guest Editors