Multimedia	Modeling	and	Processing

3D Mapping of Garment Patches Based on Human Body Section Loop Data	1
Lin Xiaodan, He Bing, Zhang Xiulin	
A Robust Hand Tracking Approach Based on Modified Tracking-Learning-Detection Algorithm Haibin Shi, Zhanjian Lin, Weiwei Tang, Bruce Liao, Jolly Wang, Lingxiang Zheng	9
A New Heuristic Algorithm for Improving Total Completion Time in Grid Computing Soheil Anousha, Shoeib Anousha, Mahmood Ahmadi	17
Parallel Processing of Multimedia Data in a Heterogeneous Computing Environment	27
Heegon Kim, Sungju Lee, Yongwha Chung, Daihee Park, Taewoong Jeon	
Ubiquitous and Pervasive Computing	
Optimization Problems Related to Hamiltonian Paths	33
Selecting Processes Supported by Fuzzy Calculations	39
Formal Specification of Cyber Physical Systems: Case StudiesBased on Hybrid Relation CalculusWenli Zhang, Lichen Zhang, Haibin Cai	45
A Network Delay Jitter Smoothing Algorithm in Cyber-Physical Systems Gang He, XiangLi Zhang, HongMei Zhang, YanYan Dai	53



A Novel Activity Recognition Approach Based on Mobile Phone Lingxiang Zheng, Yanfu Cai, Zhanjian Lin, Weiwei Tang, Huiru Zheng, Haibin Shi, Bruce Liao, Jolly Wang	59
Indoor Pedestrian Navigation with Shoe-Mounted Inertial Sensors Xianchao Zheng, Hui Yang, Weiwei Tang, Shuxiang Pu, Lingxiang Zheng, Huiru Zheng, Bruce Liao, Jolly Wang	67
Presentation Interface Based on Gesture and Voice Recognition Jinuk Kim, Sehoon Kim, Kwangjin Hong, David Jean, Keechul Jung	75
Hardware Based Distributive Power Migration and Management Algorithm for Cloud Environment P. Prakash, G. Kousalya, Shriram K. Vasudevan, Kawshik K. Rangaraju	83
Point Estimation for the Interface Using Acoustic Signal	91
Generic Distributed Sensing in Support of Context Awareness in Ambient Assisted Living Bin Xiao, Theo Kanter, Rahim Rahmani	99
RESTful Information Resource Pool Based on Cloud Computing	109
An Embedded Control System Designed Based on Soft PLC Qingguo Zhou, Xuhui Yang, Genliang Han, Jiaming Yang, Guohan Liu, Lei Yang, Ji Qi	115
Ubiquitous Networks and Mobile Communications	
A Network Coding Based Multicast Routing in Mobile Ad-hoc Wireless Networks Le The Dung, Beongku An	121
An Efficient Car Sharing Service in Vehicular Ad Hoc Network	127
Novel Protocols of Modulation Level Selection in Decode-and-Forward Multinode Cooperative Communication Systems Kuo-Kuang Wu, Min-Kuan Chang, Shi-Yong Lee, Yu-Wei Chan	133
Fair Spectrum Allocation with Reducing Spectrum Handoff in Cognitive Radio Sensor Networks Sang-Seon Byun, Joon-Min Gil	139
TTL-Based UDP Hole Punching Scheme in SIP Network KwangHee Choi, Ki-Sik Kong, Kwang-Sik Chung, Doo-Soon Park, Joon-Min Gil	147

An Empirical Study on the Quality Assessment of the VoIP Service over Wireless Mobile Networks <i>Kwang-Yeol Yoon, Beomjoon Kim</i>	153
Intelligent Computing	
Classification of Painting Genres Based on Feature Selection	159
Mining Domain-Dependent Noun Opinion Words for Sentiment Analysis Zhe Qi, Mingchu Li	165
Personalized Fitting with Deviation Adjustment Based on Support Vector Regression for Recommendation Weimin Li, Mengke Yao, Qun Jin	173
A Quick and Effective Method for Ranking Authors in Academic Social Network	179
Longjie Li, Xiaoping Wang, Qibin Zhang, Peng Lei, Min Ma, Xiaoyun Chen	173
Entity Information Retrieval System Based on EPC Network	187
Multimedia and Ubiquitous Services	
Inferences for Multicriteria Decision Making	193
Navigation Mechanism in Blended Context-Aware Ubiquitous LearningEnvironmentChuang-Kai Chiou, Judy C.R. Tseng, Tien-Yu Hsu	199
Personalized Itinerary Recommendation Based on User-Shared Trails <i>Hao Lu, Dong Wang</i>	205
Steganalysis of LSB Matching Based on Image Noise	211
Other IT and Multimedia Applications	
Development of Automotive Multimedia System Using Visible Light Communications Sang-Yub Lee, Jae-Kyu Lee, Duck-Keun Park, Sang-Hyun Park	219
Research and Implementation of CAD-INP Integration System	
Based on OpenCASCADE Qingguo Zhou, Shuan He, Jiaming Yang, Hubin Yang, Yanshan Tian, Junqiong Wang, Lei Yang, Ji Qi	227

Nomadic Work Life Support Using ICT: Toward Multi-generational Techno-socio Innovation Toshihiko Yamakami	233
A Design Requirement View Model: Lessons from the Evolution of WebKit APIs Toshihiko Yamakami	241
Optimizing the Operation Layer Algorithm of NETCONF Protocol YangMin Lee, JaeKee Lee	249
Research about Virtualization of ARM-Based Mobile Smart Devices Lei Xu, Wenzhi Chen, Zonghui Wang	259
A Hybrid Multi-Criteria Decision Support Model: Combining DANP with MDS Chen-Shu Wang, Shiang-Lin Lin	267
A Study of Architecture and Protocol Designs for NREN Federation and Optimal Path	275
Artificial Intelligence Applications for E-services (AIAE)	
Cognitive Diagnosis of Learning Path in Geography Based on Rule Space Model Chang Wen-Chih, Wu Shi-Wei	283
Secure Resource Synchronization of Mobile Peer-to-Peer Techniques: Experiments on the Android Platform Chih-Kun Ke, Zheng-Hua Lin	289
A Search of Topics in Medical Journals: Applying Information Retrieval Approach to European Journal of Radiology Deng-Yiv Chiu, Agus Andria, C.J. Juan, H.C. Chiu	295
A Study of String Matching System Based on Database Set Operation Ming-Hsiung Ying, Chien-Yu Lin	301
A Study of Intention of Classroom Interactions in IRS-Equipped Learning Environment	309
Software Recommendation of Application Market by Semantic Network and Multi-Criteria Decision Analysis Chih-Kun Ke, Shih-Fang Chang, Chang-Yu Jen, Jia Chi Liao	317
A Single Sign-On Mechanism with RBAC in Cloud Environment Mei-Yu Wu, Shih-Fang Chang, Yi-Jheng Wu	323

A Hybrid Multi-Criteria Decision Support Model: Combining DANP with MDS Chen-Shu Wang, Shiang-Lin Lin	329
Internet of Vehicles (IoV 2014)	
Ad Hoc Social Networking on a Smart City Builder — A Practical Approach Tang-Hsien Chang	337
A Message Broadcast Model for Train-to-Train Communication Network Pengyu Liu, Bo Ai, Yan Li, Ruoyu Sun	345
Urban Viaduct Channel Characterization of Train-to-Train Communication at 900 MHz Pengyu Liu, Bo Ai, Yan Li, Ruoyu Sun	353
A Cross-Layer Congestion Avoidance Routing Scheme in Vehicular Ad Hoc Networks Chiao-Ling Yang, Yao-Hsing Chung, Chen-Yu Chen, Chung-Ju Chang	361
Design and Analysis of Embedded Systems 2014 (DAES 2014)	
Theoretical Aspects of Petri Nets Decomposition Based on Invariantsand HypergraphsRemigiusz Wiśniewski, Lukasz Stefanowicz, Arkadiusz Bukowiec,Jakub Lipiński	371
A Case Study of Embedded Software Development Based on Aspect-Oriented Programming Mingrui Zhang, Wansheng Miao, Xin Zhang, Ruonan Rao	377
A Self-adaptive Power Management Method Based on Heartbeats Cangzhou Yuan, Jiewei Ke, Yuxiao Liu, You Yue, Lei Wang	385
Schedulability of Real-Time Systems with Enhanced Safety Dingkun Yang, Fei Hu	391
Dual Simulation of Application Specific Logic Controllers Based on Petri Nets Arkadiusz Bukowiec, Jacek Tkacz	399
A Method of Determining an Electric Energy Meter Maximum Uncertainty Piotr Mróz, Andrzej Olencki, Arkadiusz Bukowiec	405
Self-reconfigurable Logic Controller Architecture	411

Design, Analysis and Tools for Integrated Circuits and Systems (DATICS)

Data Synchronization Operations for a Monitoring System with a VeryLarge Number of PHDs	417
KeeHyun Park, SeungHyeon Lim, Joonsuu Park	
Power Flow Analysis and Visualization in Smart Grid Dan Wu, Rundong Wu, Zhijian Chen, Wenyan Xie, Xiang Huang, Bin Sheng, Dawei Liu	423
Finite Difference Approach to Steady State Problems Arising fromMortgage and Option PricingDejun Xie, Jin Zheng, Nan Zhang, Kun Chen, Huaiqing Wang	429
A Design for Commonsense Knowledge Enhanced High-Frequency Market Analysis System Kun Chen, Huaiqing Wang, Jian Yin, Dejun Xie	437
Future Security Technologies and Applications (FSTA)	
Security Analysis of a Delegation-Based Authentication Protocol for Wireless Roaming Service	445
An Improvement of Encrypted Remote User Authentication Scheme by Using Smart Card Jongho Mun, Jiye Kim, Woongryul Jeon, Youngsook Lee, Dongho Won	451
Countermeasure on Password-Based Authentication Scheme for Multi-server Environments Youngsook Lee, Jiye Kim, Dongho Won	459
The Organization and Presentation of Video Continuity Using 3DFloating Technique in STEAM EducationJeongyeun Kim, Namje Park	467
STEAM Education Program: Small Organisms Creating Energy	473
Author Index	479