

2006 IEEE 1st International Symposium on Pervasive Computing and Applications

**Urumqi, China
3-5 August 2006**

Volume 1 of 2



**IEEE Catalog Number: 06EX1359
ISBN: 1-4244-0325-1**

2006

1st International Symposium on

Pervasive Computing and Applications

Copyright and Reprint Permission: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Operations Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331. All rights reserved. Copyright ©2006 by the Institute of Electrical and Electronics Engineers.

IEEE Catalog Number: 06EX1359

ISBN: 1-4244-0325-1

Library of Congress: 2006922873

Publisher: **Institute of Electrical and Electronics Engineers, Inc.**

ISBN: 1-4244-0325-1

Printed in Beijing, China

Table of Contents

Abstract of Keynote Speech

From Robotics to Pervasive Computing Environments	860
<i>Prof Vic Callaghan</i>	
Intelligent Campus	862
<i>Prof. Mike Jackson</i>	
How the "What" Becomes the "How".....	863
<i>Dr. Umar Saif</i>	
Pervasive Computing: Implications, Opportunities and Challenges for the Society	864
<i>Yenumula Venkataramana Reddy</i>	
Context Awareness, the Spirit of Pervasive Computing	865
<i>Prof. Yuanchun Shi</i>	
AMS Mass Data Processing Gird	866
<i>Dr. Luo Junzhou,</i>	
Agent-Based Service-Oriented Computing and Applications.....	867
<i>Weiming Shen, Hamada Ghenniwa, Yinsheng Li</i>	
Contextual Computing	869
<i>Dr. Bin Hu</i>	

Architectures and Middleware supporting pervasive computing

A CORBA Trader-based Dynamic Binding Infrastructure in Pervasive Computing	1
<i>Xianggang Zhang, Jinde Li</i>	
A Method of Components and Parts Suppliers Selection for SMMEs Based on Uncertainly Voting AHP Group Decision Making.....	6
<i>Dianting Liu, Dejian Zhou</i>	
A New Modified Bridge Certification Authority PKI Trust Model.....	12
<i>Mingchu Li, Yizhi Ren, Zhihui Wang, Jun Xie, Hongyan Yao</i>	
A Ptolemy II Based Modeling Approach for Context-Aware Computing.....	16
<i>Rui Li, Renfa Li, Jigang Wen</i>	
A Search Direction Extensible Fast Search Algorithm.....	21
<i>Meibin Qi Debao Wang Jianguo Jiang Baolei An</i>	
A Service-oriented Middleware for Pervasive Computing Environments.....	25
<i>Huigui Su, Xiufen Fu, Zhiqing Li, Qunsheng Yang, Shaohua Teng</i>	
A User-centric Service Framework for Pervasive Computing.....	31
<i>Zhenmin Zhu, Xiaoli Su, Jintao Li, Junbo Guo, Jian Ye</i>	
Adaptive Middleware for Uniform Access to Legacy Systems for Mobile Clients.....	35
<i>Xiaoli Zhi, Lu Rong, Weiqin Tong</i>	

Table of Contents

An Application Based on the Context-Aware Computing in Harmonics Monitoring System	40
<i>Ying Li, Weiqing Tong, Xiaoli Zhi</i>	
An Architecture of Business Process Driven Application Integration in Pervasive Computing Environments	44
<i>Wenjing Cui, Haiyang Wang, Qi Sui</i>	
An Executable Meta-Core Language Based on the MOF Model	49
<i>Bing Li, Shufen Liu, Qingguo Lan, Yushuan Chen</i>	
An Intelligent Car Park Management System based on Wireless Sensor Networks.....	54
<i>Vanessa W.S. Tang, Yuan Zheng, Jiannong Cao</i>	
Application Layer Multicast with Multi-Group Cooperation	60
<i>Renjie Pi, Yue Ma, Ping Guo, Xiaosu Zhan</i>	
Automated Discovery of Human Activities inside Pervasive Living Spaces	66
<i>Fernando Rivera-Illingworth, Victor Callaghan, Hani Hagras</i>	
Emergence in swarming pervasive computing and Chaos Analysis	72
<i>Dacheng Qu, Hong Qu, Yushu Liu</i>	
Extensions to Jini Service Architecture for Pervasive Computing	79
<i>Baomin Xu, Qiang Gao, Xiaoping Yang</i>	
Increase Reliability of Pervasive Oriented Component Platform via N-Version.....	84
<i>Qingxuan Yin, Gang Feng, Xiaoge Wang and Yu Chen</i>	
PCA: A Reference Architecture for Pervasive Computing.....	88
<i>Yi Liu, Feng Li</i>	
Persistent Computing Systems as an Infrastructure for Pervasive Services.....	93
<i>Jingde Cheng, Yuichi Goto, Masami Someya, Takumi Endo</i>	
Provisioning of Personalized Pervasive Services: Daidalos Personalization Functions	99
<i>Yuping Yang</i>	
Seamless Application Integration and Deployment for Ubiquitous Middleware.....	105
<i>Yuegong Zhang, Xiaodong Liu, Daxing Li</i>	
Technology of Network Management for Pervasive Computing	111
<i>Ming Qu, Shufen Liu, Tie Bao, Lu Han</i>	
THAOP : An Aspect Oriented Programming Framework	116
<i>Gang Feng, Qingxuan Yin, Xiaoge Wang</i>	
Towards Advanced Modeling Techniques for Wireless Sensor Networks.....	122
<i>Jun-Zhao Sun and Jaakko Sauvola</i>	
Towards Pervasive Middleware: A CORBA3-Compliant Infrastructure	128
<i>Bo Ding, Dianxi Shi, Huaimin Wang</i>	

Table of Contents

Two Improved Algorithms for Multiple Potein Sequence Alignment in a Remote Diagnose System for Colonic Cancer in Pervasive Environment	134
<i>Yanping Lv, Shaozi Li, Chang Zhou, Wenzhong Guo, Zhengming Xu</i>	
Context technology	
A description logic approach to represent and extend RBAC model.....	140
<i>Ji Gao-Feng, Tang Yong, Jiang Yun-Cheng, Yang Hong-Yi</i>	
An Implementing Approach to Dynamic Context-Aware Pervasive Computing Application System	146
<i>Jinjiao Lin, Chengxiang Song, Haiyang Wang</i>	
Capturing Invisible Design: Modeling Multi-modal Interaction in Pervasive Computing.....	151
<i>Cuixia Ma, Guozhong Dai, Hongan Wang</i>	
Combining Fuzzy Clustering with Naïve Bayes Augmented Learning in Text Classification.....	157
<i>Lizhen Liu, Xiaojing Sun, Hantao Song</i>	
Entity Profiling: Context with Ontology	161
<i>Philip Moore, Bin Hu</i>	
The Research of Quality of Experience Evaluation Method in Pervasive Computing Environment .	167
<i>Li-yuan Liu , Wen-an Zhou, Jun-de Song</i>	
Data Grid &Cross- Media and pervasive computing	
A Grid-based Framework for Pervasive Cross-Media Retrieval	172
<i>Hong Zhang, Yueteng Zhuang, Fei Wu</i>	
A time-to-live based multi-resources reservation algorithm on resource discovery in Grid Environment.....	178
<i>Xue-Sheng Qi Ken-Li Li Feng-Jun Yao</i>	
An Approach for Robust Distributed Data Retrieval in Data Intensive Grid Environments	183
<i>Wei Ye, Ning Gu</i>	
An Approach of Heterogeneous Data Access and Integration in Grid	189
<i>Wanbing Shi, Lian Li, Li Liu, Wumeng Lin, Yi Yang</i>	
Content-based 3-D Shape Retrieval for Pervasive Computing.....	195
<i>Dong Xu, Hua Li, Zongkai Lin</i>	
Creation and Applications of Grid Services for Pervasive Computing.....	201
<i>Hong He, Peng Gong Zongkai Lin</i>	
Grid Computing Monitoring Based on Agent.....	207
<i>Feng Liu, Zhongwei Xu, Qi Wang</i>	
Research on Cross-realm Resource Access Control Based on Virtual Organizations	211
<i>Bin Che, Geng Yang</i>	

Table of Contents

Similarity Measurement Based on Trigonometric Function Distance	216
<i>Zongmin Li, Kupeng Hou, Hua Li</i>	
End-user programming of pervasive environments	
A Developing Method of ActiveX Component for e-Commerce	221
<i>Zhongyi Hu, Lei Xiao, Huanchun Yang, Ye Lin</i>	
A Pervasive Computing Programming Approach for Non-Technical Users	224
<i>Jeannette S Chin, Vic Callaghan, Graham Clarke</i>	
Abstract interface specification languages for device-independent interface design: classification, analysis and challenges	230
<i>L.J. Wang, A.S.M. Sajeev</i>	
Detecting and Solving Block Problems in Stream Media Transmission	236
<i>Fagui Liu, Qiang Tan</i>	
Distance Non-contact Radio Frequency Identification System Design and Realization	240
<i>Peng Ma, Xueqing Li, Xiangxu Meng, Ye Tao</i>	
Mobile agent & multi-agent	
A Case Study for Physically Inspired Approach to Motion Coordination.....	245
<i>Li Liu, Yi Yang, Lian Li, Wanbin Shi, Wumeng Lin, Zhenfang Li</i>	
A Multi-Agent Particle Swarm Optimization Framework with Applications.....	251
<i>Xiyu Liu, Ke Xu, Hong Liu</i>	
A Novel Auction-Based Grid Resource Allocation Algorithm.....	257
<i>Jian Zhao Donge Chen Zhimin Tian Zhengli Zhai</i>	
A Prediction Model of Insider Threat Based on Multi-agent.....	261
<i>Hui Wang, Shufen Liu, Xinjia Zhang</i>	
Ant Agent-Based Multicast Routing with QoS Guarantees.....	267
<i>Xin Yan, Lixin Wang, Layuan Li</i>	
Conflict Analysis of Multi-Agents.....	273
<i>Wenyuan Yang</i>	
Design of a Multi-agent Based Intelligent Intrusion Detection System.....	278
<i>Xiaodong Zhu Zhiqiu Huang Hang Zhou</i>	
Java Implementation of Mobility Agent in the Pervasive Computing.....	284
<i>Bin Wei, Chenglong Zhang, Guangsheng Ma</i>	
Primary Study on MAS-based Single-Species Ecosystem Mode	288
<i>J. Chen, H. Liu, X. Zhang</i>	
Research on Agent-based IGDSS in Pervasive Computing.....	294
<i>Zhihong Lin, Chaozhen Guo</i>	

Table of Contents

Research on Personalized E-learning System by Using Mobile Agents	299
<i>Zhao Cheng Ling, Yu Ying Ying,Luo QI, Yu Jia</i>	
Research on Web Search Engine Based on Agent.....	304
<i>Guangzhong Liu, Bin Liu</i>	
Sharing Learning in a Pervasive Design Environment	309
<i>Hong Liu,Xiyu Liu</i>	
The Prototype Study of Geographic Information Mobile Service Based on Multi Agent System Collaborative Design.....	315
<i>Lei YE, Hui LIN, Hong-Liang Hou, Wen-Guan Song</i>	
The Research of Intelligent Routing Strategy based on Multi-Agent Systems.....	321
<i>Yang Li, Guo Dong Wu, Guo Ping Zhang, Jun Zhu</i>	
Ubiquitous Media Agents for Dynamic Services Composition	325
<i>Hui Wang, Deguo Yang ,Yuhui Zhao, and Yuan Gao</i>	
Mobile, Wearable computing	
A Constraint-based User Interface Design Method for Mobile Computing Devices.....	331
<i>Yuzhen Niu, Xueqing Li, Xiangxu Meng, Jingle Sun, Haifeng Dong</i>	
A Distributed Implementation for the Seal Calculus	336
<i>Zhang Jing, Zhang Li-Cui, Jin Cheng-Zhi</i>	
A Mobile Lecture Slide Organization Tool for Students	342
<i>K. O. Chow, C. W. Ngo, H. H. S. Ip, K. S. Cheung</i>	
Motion Tracking Music with Mobile-Media Technology in Two Case Studies.....	346
<i>Arthur Clay, Dr. Thomas Frey, Prof. Dr. Jürg Gutknecht, Dr. Dennis Majoe</i>	
Remote Non-photorealistic Rendering of 3D Models on Mobile Devices	352
<i>Yuezhu Huang,Chenglei Yang,Xiangxu Meng,Xiaoting Wang,Lu Wang</i>	
Natural language processing in pervasive computing	
An Improvement for Adapting the Alignment Template Based Statistical Machine Translation Model to Pervasive Computing Environments	358
<i>Yidong Chen, Xiaodong Shi, Changle Zhou, Qingyang Hong, Tangqiu Li</i>	
Ontology-Based Profile for Chinese Information Filtering	362
<i>Xingyu Yuan, Ting Wang</i>	
Research on Resolution of Chinese Presuppositions Oriented to Pervasive Computing System	368
<i>Yun Yang , Changle Zhou</i>	

Table of Contents

Pervasive computing applications

A Hybrid Algorithm With Particle Swarm Optimization for Partner Selection Problem in Virtual Enterprise.....	374
<i>Yunping Yao, Xuxian Chen and Youtang Li</i>	
A Multi-agent Cooperative Study of Transmitting Routing Information	379
<i>Hong He, Shengzhong Yuan Baowen Xu</i>	
A Pervasive Computing System Design and Implementation for Mandarin e-Learning.....	382
<i>Wei Su, Zhenjiang Miao</i>	
An Adaptive Metadata Based Workflow and Data Management System	387
<i>Zhilin Yao, Shufen Liu, Zhaoqing Zheng, Di Huang</i>	
An Algorithm For Sketching Design with Pencil and Eraser	391
<i>Fenghua Guo, Caiming Zhang</i>	
An M-Learning System Model for the Taxi Driver	396
<i>Xinyou Zhao</i>	
Analysis and Research on Process Modeling Technology for Network in Virtual Enterprise(VE) ...	399
<i>Jiawei Yang, Jin Yao, Ricky Liu</i>	
Application of A Hybrid Particle Swarm Optimization Algorithm to Dynamic Holon Reconfiguring Problem.....	404
<i>Fuqing Zhao, Yi Hong, Dongmei Yu, Qiuyu Zhang, Yahong Yang</i>	
Application of Pervasive Computing to Enterprise Information Enquiry Service.....	410
<i>Peng Gong, Chang Wu</i>	
E-commerce to U-business: A Model for Ubiquitous Shopping Mall.....	415
<i>Cain Evans, Bin Hu</i>	
eGanges: Pervasive Peacemaker	421
<i>Pamela N. Gray, Robert Tierney, Xenogene Gray, Lyn M. Treanor</i>	
Implementation of Learning Path in Process Control Model.....	427
<i>Weining Kong, Junzhou Luo, Liang Ge</i>	
Influences of Grid on Socializing Web	433
<i>Rong Zhang Lijun Guo</i>	
Integration of Multimodal Multimedia Devices and Hardcopy Textbooks for Supporting Pervasive Learning.....	437
<i>Te-Hua Wang and Timothy K. Shih</i>	
Intelligent Agent for Knowledge Management in E-Commerce	443
<i>Xin Zhang, Weilong Liu, Fang Jin</i>	
Intelligent Resource Retrieval on Education Resource Bases.....	449
<i>Xiao Jun, Shaochen Gao, Gang Wu</i>	

Table of Contents

Research on the Application of Virtual Assembly System Based on EAI..... <i>Guimin Lin, Surong Sun</i>	454
Study on Pervasive Computing-Based Process Management in Cooperative Design for Architectural Construction Engineering <i>Weiyu Wu, Changli Wang, Hao Chen</i>	459
Study on Template for Parallel Computing in Visual Parallel Programming Platform	464
<i>Xiao-ping Liu, En-zhu Wang, Li-ping Zheng, Xing-wu Wei</i>	
The Research of Tele-education System Frame Based on Pervasive Environment..... <i>Xiaolan Xie , Dejian Zhou, Jiantao Li</i>	470
V-descriptor and Shape Similarity Measurement between B-spline Curves	474
<i>Ruixia Song, Xiaochun Wang, Hui Ma, Dongxu Qi</i>	
Workflow modeling based on Collaboration and dynamic alliance	479
<i>Wang Lin,Luo dan,Tian Jing,Sheng Buyun</i>	

Security and privacy issues in pervasive computing

A Context, Rule and Role-Based Access Control Model In Enterprise Pervasive Computing Environment..... <i>Xianzhi Huang, Haiyang Wang, Zhenxiang Chen, Jinjiao Lin</i>	485
A Design of General Multiplier in GF (2 ⁸) and FPGA Implementation..... <i>Xiaohui Yang, Zibin Dai, Xuerong Yu, Jinhai Su</i>	491
A Fair Off-line Electronic Cash Scheme Based on RSA Partially Blind Signature..... <i>Changji Wang, Hennong Xuan</i>	496
A Message Filtering System in Pervasive Computing..... <i>Qing Lin, Xiaodong Shi</i>	501
A simpler restrictive partially blind signature..... <i>Changji Wang, Hennong Xuan</i>	507
An ECC based vector space key sharing scheme..... <i>Shichun Pang, Shufen Liu</i>	512
An Enhanced Watermarking Protocol for Electronic Copyright Management..... <i>Jun Zhang, Weidong Kou, Kai Fan</i>	516
An Epidemic Model of Mobile Phone Virus	522
<i>Hui Zheng, Dong Li, Zhuo Gao</i>	
Design and Implementation of Reconfigurable Modulo (2n+1) Multiplication IP Core using FPGAs	527
<i>Yuanfeng Liu, Qiang Meng, Zibin Dai, Jianguo Liu</i>	
Design and Implementation of Reconfigurable Shift Unit using FPGAs	531
<i>Xuerong Yu, Tao Meng, Zibin Dai, Xiaohui Yang</i>	

Table of Contents

Efficient Role Hierarchy Management for Workflow =	534
<i>Fang Yin, Yuqing Sun, Peng Pan, Liang Feng, Quliang Xu</i>	
FPGA Implementation of Expandable RSA Public-Key Cryptographic Coprocessor	540
<i>Qiang Meng, Yuanfeng LiuLiu, Zibin Dai, Tao Chen</i>	
Research and Design of NIDS Based on Linux Firewall.....	544
<i>Zongpu Jia Shufen Liu Guowei Wang</i>	
Research of Protecting Private Information in Pervasive Computing Environment.....	549
<i>Zhiqing Li, Xiufen Fu, Huigui Su, Mingliang Jiang, ShuTeng Xiao</i>	
Research of Trust Model based on Autonomous Domain	555
<i>Yanqun Zhang, Qianping Wang, Chen Zhang</i>	
Research on Use of Distributed Authentication in Pervasive Computing	559
<i>Hui Liu, Cai-Ming Zhang</i>	
Security Management in Personal Network.....	563
<i>Dajiang Zhang</i>	
Security mechanisms Analysis of Wireless Sensor Networks specific Routing attacks	567
<i>Zhong Su, Chuang Lin, FengYuan Ren, XiaoSu Zhan</i>	
The Security Analysis for Ad Hoc Routing Protocols Based on Improved Strand Space	573
<i>Ying-long Wang, Ji-zhi Wang</i>	
Socio-technical issues of pervasive computing	
Got the Device, Where is the Service? Case Studies of Visually Impaired Users in Developing Smart Care	577
<i>Ying Liu</i>	
Web service& Semantic web and pervasive computing	
A Goal-driven Approach of Service Composition for Pervasive Computing	581
<i>Kangkang Zhang, Qingzhong Li, Qi Sui</i>	
A Method for Network Data Collection and Processing in the Pervasive Computing Environment..	587
<i>Tie Bao, Shufen Liu</i>	
A Method of Service Description and Discovery in Pervasive Computing Environments.....	592
<i>Hui Li, Haiyang Wang</i>	
A Novel Approach for Ranking Ontologies on the Semantic Web.....	596
<i>Wei Yu, Jiaheng Cao, Junpeng Chen</i>	
A δ -Calculus Based Model for Web Service Composition	601
<i>Huaiguang Wu, Farong Zhong, Zhengjie Duan</i>	
A Policy-based Adaptation Method for Service Composition.....	607
<i>Baopeng Zhang, Yuanchun Shi, Yu Chen</i>	

Table of Contents

A Service Oriented Flow Pattern in Pervasive Computing Environments..... <i>Qi Sui, Hai-yang Wang</i>	613
A Service-oriented Adaptive Framework for Pervasive Computing	619
<i>Luhui Cao, Qingzhong Li, Qi Sui</i>	
A Service-Oriented Group Awareness Model	623
<i>Ji Gao-feng, Tang Yong, Wu Ling-kun, Cai Miao-miao</i>	
A Trust-Based Service Evaluation and Selection Model in Pervasive Computing Environment..... <i>Zhenxiang Chen, Liansheng Ge, Haiyang Wang, Xianzhi Huang, Jinjiao Lin</i>	629
An Ontology-Based Model for Context-Aware	635
<i>Zhongmin Yan, Qingzhong Li, Hui Li</i>	
Compatibility Checking of Web Services Composition in Pervasive Computing..... <i>Chunming Gao Shizhang Ji Rongsheng Liu Huowang Chen</i>	640
Further Study on the Design of Multi-language Web CBIR Searching Engine Based on MAS	646
<i>ShiXi Tang, WeiLan Wang, Huaming Liu, Hui Xie, YangJing ZhuoGa</i>	
Research on Searching Scheme in P2P System Based on Semantic Overlay Network and the Small-world Theory	651
<i>Ying Huo, Zhigang Chen</i>	
Semantic HTML Page Segmentation using Type Analysis	657
<i>Xin Yang, Peifeng Xiang, Yuanchun Shi</i>	
Study on Embedded Web Server and Realization	663
<i>Qinma Kang, Hong He, Hongrun Wang</i>	
The Application Research of CSCW System Based on WSRF	667
<i>Wenjian Liang, Xiufen Fu, Tao Han, Binyun Liang,,Shaohua Teng</i>	
The Design of Data Mining Metadata Web Service Architecture Based on JDM in Grid Environment	672
<i>Ping Chen, Bai Wang, Liutong Xu, Bin Wu, Guiling Zhou</i>	
Tower of Babel: interoperability of ontologies for pervasive computing	678
<i>BoHu BinHu</i>	
Wireless networks & communication supporting pervasive computing	
A Coverage-Preserving Node Scheduling Scheme Based on Trust Selection Model in Wireless Sensor Networks	684
<i>Zhenyu Yin, Hai Zhao, Kai Lin, Peigang Sun, Ding Luo, Xiyuan Zhang, Xiaoying Wang</i>	
A Data-centric Distributed Detection Scheme in Wireless Sensor Networks.....	687
<i>Yuan Zhang, Runyuan Sun, and Bo Yang</i>	
A New Algorithm of Computing Shortest Path on Wireless Networks.....	693
<i>Hong He Shengzhong Yuan Zongkai Lin</i>	

Table of Contents

A New Scheme for Adaptive Antenna Pattern Switch in WiMAX System.....	698
<i>Zhihui Wang, Wenan Zhou, Junde Song</i>	
A Novel Error-resilient Video Codec Framework Based on Scene-Context Reference Picture.....	702
<i>YuHua Ai, Wu Ye, SuiLi Feng, WenHua Huang, Ming Xie</i>	
A Novel Internet Real-Time Traffic Pattern Detection Technique for Better Pervasive Computing .	707
<i>Wilfred W. K. Lin, Richard S.L. Wu, Allan K. Y. Wong and Tharam S. Dillon</i>	
A Novel Remote Screen Synchronization Mechanism for Ubiquitous Environments	713
<i>Wenbin Jiang, Hai Jin, Minyi Guo, Zhiyuan Shao, Zhangnan Zhu</i>	
A Real-time Streaming Media File Sharing Mechanism Based on P2P and SIP.....	719
<i>Deguo Yang, Hui Wang, Yuhui Zhao, Yuan Gao</i>	
Adaptive Connectivity Management for Hybrid Wireless and Mobile Networking Environment....	725
<i>Jun-Zhao Sun and Jaakko Sauvola</i>	
An Improved Flooding Communication Algorithm based on Wireless Network System.....	731
<i>Zhimin Yang, Jingping Han, Jingkai Liang</i>	
An Innovative Network Control Framework Integrated with Congestion Control and Traffic Control in a Pervasive Computing Environment	735
<i>Xiaomei Tao, Qinzhou Niu</i>	
Ant-based Energy Aware Disjoint Multipath Routing Algorithm in MANETs	740
<i>Zhengyu Wu, Xiangjun Dong2, Hantao Song, Shaofeng Jiang, Ye Liang</i>	
Crest Factor Reduction in Multicarrier Transmission by Low Crest Mapping.....	746
<i>V.Vijayarangan, R.Kalidoss, Dr.(Mrs.)R.Sukanesh</i>	
Efficiently Link Scheduling in Wireless Sensor Network	752
<i>Yuanli Wang, Xianghui Liu, Jianping Yin, Ning Jing</i>	
Media Access Control Protocols Review for UWB Networks	757
<i>Lei Wang, Ying-long Wang Ji-zhi Wang</i>	
Performance Analysis and Reliability Improvement of Bluetooth Broadcast Scheme.....	763
<i>Junxue Liang, Yingchuan Li, Bin Yu</i>	
Research on Signal Propagation in Power Line Communication Systems Based on the Reflection Matrix	769
<i>Mingyue Zhai</i>	
Simultaneous Measurements of Strain and Temperature with Dual Fiber Bragg Gratings for Pervasive Computing.....	774
<i>Tianshu Wang, Yubin Guo, Xiaosu Zhan, Ming Zhao, Ke Wang</i>	
Solving Reliable Coverage In Fault Tolerant Energy Efficient Wireless Sensor Network.....	779
<i>Qiang Xu, Yun Wang</i>	
Study of Cross-sensitivity in the Fiber-Optic Sensor based on Pervasive Computing	785
<i>Ming Zhao, Yubin Guo, Xiaosu Zhan, Tianshu Wang, Xuanguo Shen</i>	

Table of Contents

The Routing Strategy of Pervasive Computing..... <i>Jizhi Wang</i>	790
Time Synchronization Improvement for Wireless Sensor Networks..... <i>Qiang Gao, Baomin Xu</i>	793
VOD System Design in Ad hoc Wireless Network	799
<i>Xiangquan Gui, Yuanping Zhang, Yongjiao Zhu</i>	
Others	
A Comprehensive Analysis about Selection Frequency Distribution in Data Menus..... <i>Xinyong Zhang, Xiangshi Ren</i>	803
A Fast Inter Mode Selection Algorithm for H.264	809
<i>Yun Cheng, Silian Xie, Jianjun Guo, Zhiying Wang, Minlian Xiao</i>	
A Low Latency Chord Routing Algorithm for DHT	813
<i>Yi Jiang, Jinyuan You</i>	
A Multi-feature CBIR Method Using in the Traditional Chinese Medicine Tongue Diagnosis..... <i>WeiNa Zhu, ChangLe Zhou, Dan Xu, Jiatuo Xu</i>	819
New Fitness Function for Ranking First-order Rule Based on Binding	825
<i>Zhongwei Xu, Feng Liu</i>	
Multi-level decision-making model for product design based on Fuzzy set theory..... <i>Shouqian Sun, Qun Wu, Gang Liu</i>	829
Preventing Outgoing Spam by Monitoring User Interactions..... <i>Frank C. Lin, Hang Shi, Xiangrong Wang</i>	835
Research on Data Mining Model Based on Rough Sets	839
<i>Longshu Li, Weimin Yang, Xuejun Li, Yi Xu</i>	
Research on Pixel Expansion of (2,n) Visual Threshold Scheme..... <i>Liguo Fang, Bin Yu</i>	844
Research on Variability Metamodeling Method..... <i>Qingguo Lan, Shufen Liu, Bing Li, Yushuan Chen, Shichun Pang, Jianfei Yin</i>	849
The Concept of Data Genome and Its Applications..... <i>Deyou Tang, Yubin Guo, Jianqing Xi</i>	854