

**2007 6th IEEE/ACIS
International Conference on
Computer and Information
Science**

(ICIS 2007)

**Melbourne, Australia
11 – 13 July 2007**

Pages 1-542



**IEEE Catalog Number: CFP07CIS-PRT
ISBN: 978-1-4244-3088-8**

TABLE OF CONTENTS

KEYNOTE ADDRESS

Meta-Learning: From Classification to Forecasting, to Optimization, and Beyond	1
<i>Kate Smith-Miles</i>	

TECHNICAL PAPERS

SESSION 1A: COMPUTER SCIENCE AND INFORMATION SCIENCE

2D Barcode and Augmented Reality Supported English Learning System	2
<i>Tsung-Yu Liu, Tan-Hsu Tan, Yu-Ling Chu</i>	
Answering English Queries in Automatically Transcribed Arabic Speech	8
<i>Abdusalam F.A. Nwesri, S.M.M. Tahaghoghi, Falk Scholer</i>	
Minimum Message Length Clustering of Spatially-Correlated Data with Varying Inter-Class Penalties	14
<i>Gerhard Visser, David L. Dowe</i>	
Growing the Pipeline: Restructuring an Introductory Computer Programming Course	20
<i>Cynthia Y. Lester</i>	
User Perceptions and Acceptance of Benevolent Worms – A Matter of Fear?	26
<i>Luke Bellamy, Damien Hutchinson, Jason Wells</i>	

SESSION 1B: COMPUTER ARCHITECTURE AND VLSI

An Integrated Technique for Video Watermarking	33
<i>Chien-Chuan Ko, Bo-Zhi Yang</i>	
Chip Design of LPC-cepstrum for Speech Recognition	39
<i>Gin-Der Wu, Zhen-Wei Zhu</i>	
CMOS Schmitt Trigger Circuit with Controllable Hysteresis Using Logical Threshold Voltage Control Circuit	44
<i>Cong-Kha Pham</i>	
Combining Local and Global History Hashing in Perceptron Branch Prediction	50
<i>C. Y. Ho, Anthony S. S. Fong</i>	
On the Limitations of Compilers to Exploit Thread-Level Parallelism in Embedded Applications	56
<i>Mafijul Islam</i>	

SESSION 1C: WEB ENGINEERING AND APPLICATIONS

A Domain Identification Algorithm for Personalised Query Expansion with Contextual Information	62
<i>I. Seher, A. Ginige, S.A. Shahrestani</i>	

A Performance Analysis of Page and Object Retrieval using HTTP-MPLEX in Symmetric Network Environments	68
<i>Robert Mattson, Somnath Ghosh</i>	
Service Oriented Architecture for Legal Web Portal	76
<i>Kenneth Patrick Payne, Joarder Kamruzzman</i>	
Towards A Two-Layered Framework for Managing Web Services Interaction	82
<i>Zakaria Maamar, Djamal Benslimane, Quan Z. Sheng</i>	
Towards Agent Based Web Service	88
<i>Manish Chhabra, Hongen Lu</i>	

SESSION 2A: IMAGE PROCESSING AND PATTERN RECOGNITION I

A Comparison of Relevance Feedback Strategies in CBIR	94
<i>Gita Das, Sid Ray</i>	
A fully Automated CAD system using Multi-category Feature Selection with Restricted Recombination	100
<i>Ranadhir Ghosh, Moumita Ghosh, John Yearwood, Subhasis Mukherjee</i>	
A Kernel-Based Method for Semi-Supervised Learning	106
<i>Andrew Skabar, Narendra Juneja</i>	
A Modified K-means Algorithm for Noise Reduction in Optical Motion Capture Data	112
<i>Jan Carlo Barca, Grace Rumanfir</i>	
A New Approach for Image Thresholding under Uneven Lighting Conditions	117
<i>Yao-Hong Tsai</i>	
A Novel Adaptive-Boost-Based Strategy for Combining Classifiers Using Diversity Concept	122
<i>Abbas Golestani, Kushan Ahmadian Ali Amiri, MohammadReza JahedMotlagh</i>	

SESSION 2B: MOBILE/WIRELESS COMPUTING I

A Conflict Resolution Method in Context-Aware Computing	128
<i>Yong Qi, Min Xi, Saiyu Qi, Jizhong Zhao</i>	
A Critique of Mobility Models for Wireless Network Simulation	134
<i>Babak Pazand, Chris McDonald</i>	
A Fuzzy Adaptive Soft Handover Scheme Supporting Four Active Sets	140
<i>Kemeng Yang, Iqbal Gondal, Bin Qiu, Laurence S. Dooley</i>	
A Secure Routing Protocol for Mobile Ad Hoc Networks	146
<i>Li Zhitang , Shi Shudong</i>	
Applying Concurrent Versioning to Serverless Mobile Device Synchronisation	150
<i>Henry Larkin</i>	
Voice over Internet Protocol on Mobile Devices	156
<i>Guo Fang Mao, Alex Talevski, Elizabeth Chang</i>	

SESSION 2C: COMPUTER, SOFTWARE ENGINEERING AND INFORMATION ENGINEERING I

A Framework for Deterministic Intention Specifications of an Agent Toward an Incomplete Declared Intention	162
<i>Dussadee Praserttipong, Peraphon Sophatsathit</i>	
Cognitive Process During Incremental Software Development	168
<i>Shaochun Xu, Zendi Cui, Yufeng Gui</i>	
Constructing a Process Model for Decision Analysis and Resolution on COTS Selection Issue of Capability Maturity Model Integration	174
<i>Phamorn Vantakavikran, Nakornthip Prompoon</i>	
Integration of Configuration Management and Hypermedia for Managing Changes in Database Applications	180
<i>Tien N. Nguyen</i>	
Architectural View in Software Development Life-Cycle Practices	186
<i>Jinalben Patel, Roger Lee, Haeng-Kon Kim</i>	
Frameworks of Integration Repository for Software Process Improvement using SOA	192
<i>Eun-Ju Park, Haeng-Kon Kim, Roger Y. Lee</i>	

SESSION 3A: IMAGE PROCESSING AND PATTERN RECOGNITION II

Adaptive Watermarking Algorithm Using SVR in Wavelet Domain	198
<i>Jun Li, Hong Peng, Zheng Pei</i>	
Bezier Curve-Based Character Descriptor Considering Shape Information	203
<i>Ferdous Ahmed Sohel, Gour C. Karmakar, Laurence S. Dooley</i>	
Evolving Ensemble of Classifiers In Low-Dimensional Spaces Using Multi-Objective Evolutionary Approach	208
<i>Kushan Ahmadian, Abbas Golestani, Morteza Analoui, Mohammad R. Jahed</i>	
The GVF Snake with a Minimal Path Approach	214
<i>Chensheng Sun, Kin-Man Lam</i>	
Fast Scene Change Detection Based Histogram	220
<i>Morshed U. Chowdhury, Rezwanur Rahman, Joydip Saha, S. M. Raiyan Kabir</i>	
Fingerprint Recognition System Using Hybrid Matching Techniques	225
<i>Aliaa A.A. Youssif, Morshed U. Chowdhury, Sid Ray, Howida Youssry Nafaa</i>	

SESSION 3B: MOBILE/WIRELESS COMPUTING II

Defining Functional Requirements for a Lightweight GNSS Support Protocol (LGSP)	231
<i>Mike Tyson, Carlo Kopp</i>	
Design of Multi-signature Scheme in Wireless Networks	237
<i>Han ping, Zhu Yanqin, Hu Yuemei</i>	
Development of Multimodal Ubiquitous System: A Pilot Study	242
<i>David Kang, Wei Dai</i>	
Effects of Varying Superframe Duration on Jitter in Interactive Multimedia Traffic Transmission over WLANs	247
<i>Suhaimi Bin Abd Latif, M.A. Rashid, F.Alam</i>	

Pheromone Communication Simulation for Mobile Robots Using Java 3D	251
<i>Anies Hannawati Purnamadjaja, Johan Iskandar, R. Andrew Russell</i>	
Cell Phone System for Tour & Information Guide	257
<i>Nariaki Kato, Naohiro Ishii</i>	

SESSION 3C: COMPUTER, SOFTWARE ENGINEERING, AND INFORMATION ENGINEERING II

Software Development for B92 Quantum Key Distribution Communication Protocol	263
<i>Shirantha Wijesekera, Sajal Palit, Bala Balachandran</i>	
Towards Aspect Oriented Web Service Composition with UML	268
<i>Yang Xu, Shengqun Tang, Youwei Xu, Zukai Tang</i>	
XPL, a Presentation Language based on User Interface Design Pattern	274
<i>Giuseppe Vella, Nunzio Ingrassia, Marilia Liotta, Antonella Santangelo, Antonio Gentile</i>	
A Comparison of Bipartite N-Qubit States to Classify Entangled States under Symmetric Consideration	280
<i>Alauddin Ahmed, Atiqur Rahman, Mohammed Anwer, Nazmul Haque, Morshed U. Chowdhury</i>	
Reliability Analysis of Component Software Based on Stochastic Petri Nets	285
<i>Lianzhang Zhu, Yanchen Li</i>	
Evaluating the Usefulness of Pair Programming in a Classroom Setting	291
<i>Theodore Van Toll III, Roger Lee, Thomas Ahlswede</i>	

SESSION 4A: IMAGE PROCESSING AND PATTERN RECOGNITION III

Fuzzy Model Based Recognition of Handwritten Hindi Numerals using Bacterial Foraging	297
<i>M. Hanmandlu, A.V. Nath, A.C. Mishra, V.K. Madasu</i>	
Image Watermarking Using Structure Based Wavelet Tree Quantization	303
<i>Gin-Der Wu, Pang-Hsuan Huang</i>	
Impact of Clustering Techniques on Content-Based Pattern Generation Algorithm for Low Bit Rate Video Coding	308
<i>Manoranjan Paul, Manzur Murshed</i>	
Improved Background Removal through Polarisation in Vision-Based Tabletop Interface	314
<i>Ross Eldridge, Heiko Rudolph, Jonathan Duckworth, Peter H. Wilson</i>	
Real-time Linear Projection Speed Sign Detection System in Low Light Conditions	320
<i>Tam P. Cao, Darrell M. Elton, John Devlin</i>	
Slice and Blockwise Well-Composed Sets	327
<i>Luke Domanski</i>	

SESSION 4B: MOBILE/WIRELESS COMPUTING III

Hybrid Group Key Management Scheme for Secure Wireless Multicast	333
<i>Yiling Wang, Phu Dung Le, Balasubramaniam Srinivasan</i>	
Network Lifetime of Application-Specific Randomly Deployed Wireless Sensor Networks in Arbitrary Sensor Density	339
<i>Jing He, Yanchun Zhang, Guangyan Huang, Yong Shi</i>	

Performance Analysis of OFDM Systems with Phase Noise	345
<i>M. Mahbubur Rahman, Delowar Hossain, ABM Shawkat Ali</i>	
RFID-based Hospital Real-time Patient Management System	350
<i>Belal Chowdhury, Rajiv Khosla</i>	
Taxonomy and Survey of Location Management Systems	356
<i>Ahadur Rahaman, Jemal Abawajy, Michael Hobbs</i>	
Tokenisation of Class Files for an Embedded Java Processor	362
<i>Shawn Haggett, Greg Knowles, Graham Bignell</i>	

SESSION 4C: KNOWLEDGE DISCOVERY, ARTIFICIAL INTELLIGENCE, NEURAL NETWORKS, AND GENETIC ALGORITHMS I

A Combined MA-GA Approach for Solving Constrained Optimization Problems	368
<i>Abu Saleh Shah Muhammad Barkat Ullah, Ruhul Sarker, David Cornforth</i>	
A Genetic Robot Path Planner with Fuzzy Logic Adaptation	374
<i>Mahmoud Tarokh</i>	
A Hybrid Method for Solving Traveling Salesman Problem	380
<i>Bager Zarei, M.R. Meybodi, Mortaza Abbaszadeh</i>	
A Hybrid Simulated Annealing with Kempe Chain Neighborhood for the University Timetabling Problem	386
<i>Mauritsius Tuga, Regina Berretta, Alexandre Mendes</i>	
A Neuro-Fuzzy Model for Motion Cognition	392
<i>Mohamed Shaarawy, Mohamed Belal, Ehab ElGindy</i>	
A Procedural Approach to Forecasting Nocturnal Air Temperature for Frost Prediction	398
<i>Megan Woods, Iqbal Gondal</i>	

SESSION 5A: IMAGE, ACOUSTIC, SPEECH, AND SIGNAL PROCESSING I

Acoustic Features Extraction for Emotion Recognition	404
<i>Jia Rong, Yi-Ping Phoebe Chen, Morshed Chowdhury, Gang Li</i>	
Statistical Analysis of Impulse Noise Model for Color Image Restoration	410
<i>Mieng Quoc Phu, Peter Eric Tischer, Hong Ren Wu</i>	
2D Barcodes as Watermarks in Image Authentication	417
<i>Prashan Premaratne, Farzad Safaei</i>	
A Hybrid Algorithm for Estimation of the Parameters of Hidden Markov Model based Acoustic Modeling of Speech Signals using Constraint-Based Genetic Algorithm and Expectation Maximization	423
<i>Shamsul Huda, John Yearwood, Ranadhir Ghosh</i>	
Accent Classification Using Support Vector Machines	429
<i>Carol Pedersen, Joachim Diederich</i>	
One-Dimensional Grey Polynomial Interpolators for Image Enlargement	435
<i>Cheng-Hsiung Hsieh, Ren-Hsien Huang, Ting-Yu Feng</i>	

SESSION 5B: INTELLIGENT AGENT TECHNOLOGY, AGENT BASED SYSTEMS

A Fuzzy-Based Approach for Partner Selection in Multi-Agent Systems	441
<i>Fenghui Ren, Minjie Zhang, Quan Bai</i>	
An Empirical Study of Knowledge Representation and Learning within Conceptual Spaces for Intelligent Agents	447
<i>Ickjai Lee, Bayani Portier</i>	
Decontamination of Arbitrary Networks using a Team of Mobile Agents with Limited Visibility	453
<i>Paola Flocchini, Amiya Nayak, Arno Schulz</i>	
Learning in Market-based Resource Allocation	459
<i>Eduardo Rodrigues Gomes, Ryszard Kowalczyk</i>	
Policy based Ontology Framework for Mobile Agents	467
<i>Sarmad Sadik, Arshad Ali, H. Farooq Ahmad, Hiroki Suguri</i>	
Routing with Load Balancing in Ad Hoc Network: A Mobile Agent Approach	473
<i>Neeraj Nehra, R.B.Patel, V.K.Bhat</i>	

SESSION 5C: KNOWLEDGE DISCOVERY, ARTIFICIAL INTELLIGENCE, NEURAL NETWORKS, AND GENETIC ALGORITHMS II

Ambient Cardiac Expert: A Cardiac Patient Monitoring System using Genetic and Clinical Knowledge Fusion	479
<i>Iqbal Gondal, Shoaib Sehgal, Mudasser Iqbal, Joarder Kamruzzaman</i>	
An Attribute Reduction Method Based on Rough Set and SVM and with Application in Oil-Gas Prediction	485
<i>Nie Ru, Yue Jianhua</i>	
Finding Motifs in miRNA Sequences	490
<i>Chinnu Subramaniam, Jiyuan An, Jayavardhana Gubbi, Yi-Ping Phoebe Chen</i>	
Higher Order Voronoi Diagrams for Concept Boundaries and Tessellations	496
<i>Ickjai Lee, Kyungmi Lee</i>	
Hybrid Genetic Algorithm for Solving Job-Shop Scheduling Problem	502
<i>S. M. Kamrul Hasan, Ruhul Sarker, David Cornforth</i>	
Learning Structure of a Gene Regulatory Network	508
<i>Ramesh Ram, Madhu Chetty</i>	

SESSION 6A: DATA MINING, DATA WAREHOUSING, AND DATABASE

A Novel Classifier Selection Approach for Adaptive Boosting Algorithms	514
<i>ABM Shawkat Ali, Tony Dobele</i>	
Gene-finding as an Attribute Selection Task	519
<i>Helyane Bronoski Borges, Julio Cesar Nievola</i>	
Hybrid Multi-Feature Indexing for Music Data Retrieval	525
<i>Yu-lung Lo, Chun-hsiung Wang</i>	
Obtain Weather Data with Data Warehousing	531
<i>M.H.Peyravi, P.Khosraviyan Dehkordi, Z.Davari Nejad</i>	

ORN Additive: Shrinking the Gap between Database Modeling and Implementation	537
<i>Bryon K. Ehlmann</i>	
Service-mining Based on the Knowledge and Customer Databases	543
<i>Hu Wang, Chunqiang Gong, Yan Li</i>	

SESSION 6B: COMMUNICATION SYSTEMS, NETWORKS, AND WIRELESS NETWORKS I

A New Cooperative Communication MAC Strategy for Wireless Ad Hoc Networks	550
<i>Li Yi, Ji Hong</i>	
An Efficient Node Partitioning Algorithm for the Capacitated Minimum Spanning Tree Problem	556
<i>Jun Han, Zhaohao Sun, Jinpeng Huai, Xian Li</i>	
Integrated Sensing and Diagnosis – The Next Step in Real Time Patient Health Care	562
<i>Iqbal Gondal, Mudasser Iqbal, Megan Woods, Shoaib Sehgal</i>	
Intrusion Detection via Fuzzy-Genetic Algorithm Combination with Evolutionary Algorithms	568
<i>A.T.Haghighat, M.Esmaeil, A.Saremi, V.R.Mousavi</i>	
Massive Data Delivery in Unstructured Peer-to-Peer Networks with Network Coding	573
<i>Shui Yu, Zhongwen Li</i>	
Optimization of QoS Routing	579
<i>Himanshu Agrawal, Melanie Grah, Mark Gregory</i>	

SESSION 6C: PARALLEL AND DISTRIBUTED COMPUTING AND SYSTEMS

3D Graphics Performance Scaling and Workload Decomposition and Analysis	584
<i>Fadi N. Sibai</i>	
A Study on Data Placement of Extensible Parallel Storage System	590
<i>Hu Zhang, Weiguo Wu, Xiaoshe Dong, Depei Qian, Luogeng Dai</i>	
Adjacency Cache: Fast Web Cache Indexing and Lookup	596
<i>John Casey, Ashley Chonka, Wanlei Zhou</i>	
Average Routing Distance Analysis and Comparison of Master-Slave Super-Super-Hypercube 4-Cube Topology with different Message Passing Architectures	602
<i>M. Amiripour, H. Abachi</i>	
Improving Interactive Experience of Thin Client Computing by Reducing Data	607
<i>Sun Yang, Tay Teng Tiow</i>	
Approximate Element Computational Time for Domain Decomposition in Parallel Finite Element Code	613
<i>Thuy T. Le</i>	

SESSION 7A: MIDDLEWARE ARCHITECTURES AND TECHNIQUES I

A Novel Differentiated Service Hybrid Signaling Protocol for Optical Burst Switching Networks	619
<i>Yantao Guo, Aijun Wen, Zengji Liu, Zhiqing Zhang</i>	
A Smart Proxy for a Next Generation Web Services Transaction	625
<i>Sunam Pradhan, Arkady Zaslavsky</i>	
Adapting the FT-CORBA Replication Management Service for Large-scale Distributed Systems	631
<i>Lau Cheuk Lung, Joni da Silva Fraga</i>	
An Edge Extraction Method for Color Image Using Multiple-Valued LoG Filter and Color Space	637
<i>Cong-Kha Pham, Koutaro Yamano</i>	
Evaluation of Authentication Mechanisms for Mobile Agents on top of Java	642
<i>Leila Ismail</i>	
Intelligent Adaptive Services for On-demand Systems Integration	648
<i>Wei Dai, Jonathan Liu</i>	

SESSION 7B: COMMUNICATION SYSTEMS, NETWORKS, AND WIRELESS NETWORKS II

Rerouting Technique for Faster Restoration of Preempted Calls	654
<i>Iftexhar Ahmad, Joarder Kamruzzaman, Daryoush Habibi</i>	
Self Adjusted Security Architecture for Mobile Ad Hoc Networks (MANETs)	660
<i>Atef Z. Ghalwash, Aliaa A. A. Youssif, Sherif M. Hashad, Robin Doss</i>	
The Virtual Topology Reconfiguration Controller for WDM Networks	666
<i>Seungyeon You, Sungchun Kim</i>	
Towards Multicast Delay Analysis for Ad hoc Wireless Networks	672
<i>K. Sithitavorn, C. Wilson, B. Qiu</i>	
A Comparative Study on the Performance of Wireless Sensor Networks	678
<i>Lin Zou, Zhongwei Zhang</i>	
Cross-layer Resource Control to Improve TCP Performance over Wireless Network	684
<i>Ming Li</i>	

SESSION 7C: INFORMATION MANAGEMENT SYSTEMS, ECONOMIC AND FINANCIAL SYSTEMS, CONTROL AND INTELLIGENT SYSTEMS

Managing Unstructured and Semi-Structured Information in Organisations	689
<i>Ashley M. Aitken</i>	
Performance Modeling of Business Processes Enabled by RFID and Web Services	695
<i>Chen-Yang Cheng, Vittal Prabhu</i>	
Structural Equation Modelling of Large-scale Information System Application Development Productivity: the Hong Kong Experience	701
<i>LR Foulds, M Quaddus, M West</i>	

Portfolio Management of Option-Based Investment in Technology Research and Development	709
<i>Jirawute Choungsirakulwit, Daricha Sutivong</i>	
Nanorobots for Laparoscopic Cancer Surgery.....	715
<i>Adriano Cavalcanti, Bijan Shirinzadeh, Declan Murphy, Julian A. Smith</i>	
Robust-Optimal Control of a Nonlinear Two Degree-of-Freedom Helicopter	721
<i>Gwo-Ruey Yu</i>	
Encoding and Decoding Techniques for Medical Video Signal Transmission and Viewing	727
<i>Manoranjan Paul, Golam Sorwar</i>	

SESSION 8A: INTERNET TECHNOLOGY AND APPLICATIONS, e-COMMERCE

Dynamic Feature Selection for Spam Filtering Using Support Vector Machine.....	733
<i>Rafiqul Islam, Wanlei Zhou, Morshed U. Choudhury</i>	
Improvement of the Recall and the Precision for Semantic Web Services Search.....	739
<i>Daewook Lee, Joonho Kwon, SeungHoon Yang, Sukho Lee</i>	
Internet Communities and Open innovation: an Information System Design Methodology	745
<i>Roula Michaelides, Dennis Kehoe</i>	
A Multilevel Trust Management Framework.....	752
<i>Soon-Keow Chong, Jemal H. Abawajy, Robert A. Dew</i>	
SEFAP: An Email System for Anti-Phishing.....	758
<i>Qiong Ren, Yi Mu, Willy Susilo</i>	
A Matrix Algorithm for Web Cache Pre-fetching.....	764
<i>Wenyong Feng, Hua Chen</i>	

SESSION 8B: VISUAL AND MULTIMEDIA COMPUTING

A Composite Descriptor for Shape Retrieval	770
<i>Atul Sajjanhar, Guojun Lu, Dengsheng Zhang, Wanlei Zhou</i>	
An Efficient and Robust Technique for Region Based Shape Representation and Retrieval	776
<i>Dengsheng Zhang, Melissa Chen Yi Lim</i>	
Efficient Probabilistic Spatio-Temporal Video Object Segmentation.....	782
<i>Rakib Ahmed, Gour C. Karmakar, Laurence S. Dooley</i>	
Image Retrieval Based on Fuzzy Mapping of Image Database and Fuzzy Similarity Distance	787
<i>Siddhivinayak Kulkarni</i>	
Model of a Semantic Web Search Engine for Multimedia Content Retrieval	793
<i>Mohan Ponnada, Nalin Sharda</i>	
Research on Intelligent Visual Surveillance for Public Security.....	799
<i>Wenxiong Kang, Feiqi Deng</i>	

SESSION 8C: 1ST IEEE/ACIS INTERNATIONAL WORKSHOP ON e-ACTIVITY I

A New DRM System Based on Graded Contents Sharing and Time-Block Distribution for Home Networks	804
<i>Eun Seok Jeong, Chul Sur, Kyung Hyune Rhee</i>	
An Integrated Haptic Data Transmission in Haptic Collaborative Virtual Environments.....	808
<i>Yonghee You, Mee Young Sung, Kyungkoo Jun</i>	
Analysies of Relations Between Spoken Utterances and Text Messages in Chat-augmented Meetings	814
<i>Tomoya Kobayashi, Kazushi Nishimoto</i>	
Cache Predicting Algorithm Based on Context-Aware in Pervasive Computing.....	818
<i>Jizhong Zhao, Min Xi, Yong Qi</i>	
A Campus Information Processing based on Educational Resources Reuse and Integration.....	824
<i>Takayuki Fujimoto, Tokuro Matsuo</i>	
Collaborative Education Model and Its Application in E-learning	830
<i>Gang Chen, Ruimin Shen, Jiajun Wang, Zeyu Chen</i>	

SESSION 9A: SOFTWARE ARCHITECTURES AND FRAMEWORKS, SOFTWARE REUSE AND SOFTWARE TESTING

A Solution to Block Cross Site Scripting Vulnerabilities based on Service Oriented Architecture	834
<i>Jayamsakthi Shanmugam, M.Ponnaivaikko</i>	
Dynamic Reconfiguration Planning with Influence Control	840
<i>Zhikun Zhao, Wei Li</i>	
Validation Process and Component Analysis in Semantic Mediation	846
<i>Raymond Wu</i>	
Collaborative File Editor Using Repository in a Box.....	852
<i>Gongzhu Hu, Ivan Milenkovic</i>	
A New Approach to Detecting Memory Access Errors in C Programs.....	858
<i>Dae Wan Cho, Hyeon Soo Kim, Seunguk Oh</i>	
Model-Based Software Component Testing: A UML-Based Approach.....	864
<i>Weiqun Zheng, Gary Bundell</i>	

SESSION 9B: PARALLEL AND DISTRIBUTED COMPUTING, VISUAL AND MULTIMEDIA COMPUTING

Split Private and Shared L2 Cache Architecture for Snooping-based CMP	872
<i>Xuemei Zhao, Karl Sammut, Fangpo He, Shaowen Qin</i>	
Trust Realisation in Multi-domain Collaborative Environments	878
<i>Oluwafemi Ajayi, Richard Sinnott, Anthony Stell</i>	
Investigating the Shared Visual Context in Distributed Collaborative Work	884
<i>Dawei Jia, Kathy Blashki, Penelope Goward, Jim Eales</i>	
Reduct-Based Result Set Fusion for Relevance Feedback in CBIR.....	890
<i>Samar Zutshi, Campbell Wilson, Bala Srinivasan</i>	

Speech Animation Based on Chinese Mandarin Triphone Model	896
<i>Zhou Wei, Wang Zengfu</i>	
Motion Control of a Dancing Character with Music	902
<i>Gunwoo Kim, Yan Wang, Hyewon Seo</i>	

SESSION 9C: 1ST IEEE/ACIS INTERNATIONAL WORKSHOP ON e-ACTIVITY II

Conceptual Modeling of Product Information in e-Commerce	908
<i>Hyunja Lee, Junho Shim</i>	
A New Cooperative Communication System in Distance Education	914
<i>Tokuro Matsuo, Takayuki Fujimoto</i>	
InfoXP: An E-government Information eXchange Platform Based on Overlay Network	920
<i>Jun Han, Xudong Liu, Jinpeng Huai, Xuelian Lin, Xiaoxuan Ma, Xian Li</i>	
Intelligent Access Control Mechanism for Ubiquitous Applications	926
<i>Tae-Hun Lim, Sang-Uk Shin</i>	
Long Distance Redundancy Reduction in Thin Client Computing	932
<i>SunYang, TayTeng Tiow</i>	
Restricted Access to Exam Grades on the Web by HIP	938
<i>Sajad Shirali-Shahreza, Mohammad Shirali-Shahreza, Ali Movaghar</i>	

SESSION 10A: DATA MINING, KNOWLEDGE DISCOVERY, NEURAL NETWORKS AND GENETIC ALGORITHMS

Spam Classification Using Adaptive Boosting Algorithm	942
<i>ABM Shawkat Ali, Yang Xiang</i>	
A Novel Genetic Algorithm Based on Image Databases for Mining Association Rules	947
<i>Shangping Dai, Li Gao, Qiang Zhu, Changwu Zhu</i>	
Using Links to Aid Web Classification	951
<i>Wei Xie, Musa Mammadov, John Yearwood</i>	
Visual Tools for Analysing Evolution, Emergence, and Error in Data Streams	957
<i>Sol Hart, John Yearwood, Adil M. Bagirov</i>	
Recognition of Power Quality Events by Using Multiwavelet-Based Neural Network	963
<i>Suriya Kaewarsa, Kitti Attakitmongcol, Thanatchai Kulworawanichpong</i>	
SubSS: A Protein-Protein Interaction Detection Tool	969
<i>Nazar Zaki, Safaai Deris, Saleh Alwahaishi</i>	
The Research of Social Navigation based on Fuzzy Concept Lattice	975
<i>ChunZhi Xie, LiangZhong Yi, YaJun Du, Zheng Pei</i>	

SESSION 10B: PROGRAMMING LANGUAGES, TECHNOLOGY EDUCATION, AND TRAINING

Control Network Programming	981
<i>Kostadin Kratchanov, Tzanko Golemanov, Emilia Golemanova</i>	

Slicing Aided Design of Obfuscating Transforms	988
<i>Stephen Drape, Anirban Majumdar, Clark Thomborson</i>	
A Low Cost Interactive Distance Learning Solution.....	994
<i>Faisal Sana, Shakeel Ahmed Khoja</i>	
Bridge Information Assurance Education Gap between the Majority and Minority Universities through Collaboration	999
<i>H. Yu, X. Yuan, J. Xu, S. Providence, B. Chu, D. Gu</i>	
Collegiate Cyber Game Design Criteria and Participation	1005
<i>Bei-Tseng Chu, Gail-Joon Ahn, Steven Blanchard, James Deese, Richard Kelly, Huiming Yu, Ashika Young</i>	
Information Technology Project Management Curriculum Practice	1011
<i>Grace Widjaja Rumantir</i>	

SESSION 10C: 1ST IEEE/ACIS INTERNATIONAL WORKSHOP ON e-ACTIVITY III

Software Installation on a Huge Heterogeneous Network using Mobile Agents	1017
<i>B.Srikanth, D.Kirubakaran, N.Siddharth, Sudip Sanyal</i>	
Using Metrics for Estimating Maintainability of Web Applications: An Empirical Study	1021
<i>Heung Seok Chae, Tae Yeon Kim, Woo-Sung Jung, Joon-Sang Lee</i>	

SESSION 11C: SOFTWARE METRICS, PROCESS MANAGEMENT, AND IMPROVEMENT

Bad-Smell Metrics for Aspect-Oriented Software.....	1027
<i>Komsan Srivisut, Pornsiri Muenchaisri</i>	
A Framework to Detect Deviations During Process Enactment	1033
<i>Sean Thompson, Torab Torabi, Purva Joshi</i>	
Challenges and Solutions in Process Automation in Tertiary Education Institutes: An Australian Case Study	1041
<i>Jeewani Anupama Ginige, Athula Ginige</i>	
CAD model of Process Elements: Towards Effective Management of Process Evolution in Web-based Workflows.....	1047
<i>Jeewani A. Ginige, Athula Ginige, Uma Sirinivasan</i>	

SESSION 11A: SPEECH PROCESSING AND HEALTHCARE ENGINEERING

New Methods for Transparent and Accurate Echo Hiding By Using the Original Audio Cepstral Content	1053
<i>Yousof Erfani, M. Shahram Moin, Mehdi Parviz</i>	
Voice Activity Detection Based on GM(1,1) Model.....	1059
<i>Cheng-Hsiung Hsieh, Ting-Yu Feng, Ren-Hsien Huang</i>	
Automated Speech Discrimination using Frequency Derivative Threshold Detection	1065
<i>Christopher J. Page, Syed Mahfuzul Aziz</i>	

Technology Management, Data Management, Improved Outcomes, Efficiency and Software Limitation Influencing the Use of Wireless Technology for Healthcare in Pakistan	1070
<i>Abdul Hafeez-Baig, Shelly Grist, Raj Gururajan</i>	

SESSION 11B: MIDDLEWARE ARCHITECTURES AND TECHNIQUES, INTERNET TECHNOLOGY AND APPLICATIONS

Providing Reliable Web Services through Active Replication	1076
<i>Xinfeng Ye</i>	
Towards a Table Driven XML QoS Aware Transmission Framework	1082
<i>Alex Ng</i>	
Two Logical Verification of Quantum NOT Gate	1089
<i>Alauddin Ahmed, Atiqur Rahman, Mohammed Anwer, Nazmul Haque, Morshed U. Chowdhury</i>	
Determining the Loss of Investment Probability for Risk based Decision Support System	1094
<i>Omar Khadeer Hussain, Elizabeth Chang, Farookh Khadeer Hussain, Tharam S. Dillon</i>	
Understanding Consumer Search Activity and Online Purchase Intentions for Improving the Product Recommendation Search	1100
<i>Wen-Shan Lin, Ming-Fong Chen, Yan-Yan Chen</i>	

Author Index