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<tr>
<td>8:30–16:30</td>
<td>Registration</td>
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<td>9:00–9:20</td>
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<td>Chair: Toshiaki Miyazaki</td>
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<tr>
<td>9:20–10:20</td>
<td>Keynote Address I</td>
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<td>Business Intelligence – An Industrial Perspective (Meichun Hsu)</td>
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<td>Chair: Subhash Bhalla</td>
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<tr>
<td>10:20–10:40</td>
<td>Break</td>
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<td>10:40–11:40</td>
<td>Session B-1: Internet and Web Performance</td>
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<td>Chair: Chang-sung Jeong</td>
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<td>Session F-1: Secure Framework</td>
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<td>Chair: Minyi Guo</td>
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<td>Session I-1: RFID Management</td>
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<td>Chair: Zixue Cheng</td>
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<td>Session H-1: Automated Testing Tools</td>
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<td>Chair: Hironori Washizaki</td>
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<td>11:50–13:10</td>
<td>Break</td>
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<td>13:10–14:20</td>
<td>Lunch Break: University Cafeteria</td>
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<td>14:20–15:40</td>
<td>Session B-2: Web Analysis</td>
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<td>Chair: Vitaly Klyuev</td>
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<td>Session F-2: Watermarking and Encryption</td>
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<td>Chair: Guojun Wang</td>
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<td>Session I-2: Technologies for Ubiquitous Application and Network</td>
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<td>Chair: Satoshi Kurihara</td>
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<td>Session H-2: Modeling and Simulation</td>
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<td>Session E-1: Computer Graphics and Virtual Reality</td>
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<td>Chair: Roman Đurišković</td>
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<td>Venue: UBIC</td>
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<td>16:30–</td>
<td>Reception Party: University Cafeteria</td>
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<td>Time</td>
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<tr>
<td>9:00–10:00</td>
<td><strong>Keynote Address II</strong>&lt;br&gt;The IUPS Physiome Project (Peter J. Hunter)&lt;br&gt;Chair: Daming Wei&lt;br&gt;Venue: Auditorium</td>
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<td>10:00–10:10</td>
<td><strong>Break</strong></td>
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<tr>
<td>10:10–11:30</td>
<td>Session B-4: 4&lt;br&gt;Semantic Web&lt;br&gt;Chair: Ryuichi Oka&lt;br&gt;Venue: S5</td>
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<td>Session I-4: 3&lt;br&gt;Energy Control Issue in Sensor Networks&lt;br&gt;Chair: Toshiaki Miyazaki&lt;br&gt;Venue: S6</td>
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<td>Session C-1: 3&lt;br&gt;Task and Resource Management&lt;br&gt;Chair: Dongseung Kim&lt;br&gt;Venue: S7</td>
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<td>Session H-4: 4&lt;br&gt;Software Product Line Engineering&lt;br&gt;Chair: Incheon Paik&lt;br&gt;Venue: S8</td>
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<td>11:30–11:40</td>
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<tr>
<td>11:40–13:00</td>
<td>Session B-5: 4&lt;br&gt;Web Services and Applications II&lt;br&gt;Chair: Alexander Vazhenin&lt;br&gt;Venue: S5</td>
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<td></td>
<td>Session I-5: 4&lt;br&gt;Sensor Network Architecture and Model&lt;br&gt;Chair: Shiyong Zhang&lt;br&gt;Venue: S6</td>
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<td>Session D-1: 3&lt;br&gt;QoS and Security&lt;br&gt;Chair: Baoliu Ye&lt;br&gt;Venue: S8</td>
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<td>13:00–14:00</td>
<td>Lunch Break: University Cafeteria</td>
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<tr>
<td>14:00–15:40</td>
<td>Session A-1: 5&lt;br&gt;XML and DB&lt;br&gt;Chair: Keitaro Naruse&lt;br&gt;Venue: S5</td>
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<td>Session C-2: 5&lt;br&gt;HPC Application&lt;br&gt;Chair: Yingwen Song&lt;br&gt;Venue: S6</td>
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<td>Session E-3: 5&lt;br&gt;Image Processing&lt;br&gt;Chair: Frank Ekpar&lt;br&gt;Venue: S7</td>
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<td>Session D-2: 4&lt;br&gt;Protocol and Algorithms I&lt;br&gt;Chair: Yongwoo Lee&lt;br&gt;Venue: S8</td>
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<td>15:40–16:00</td>
<td><strong>Coffee Served</strong></td>
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<tr>
<td>16:00–18:00</td>
<td>Session A-2: 4&lt;br&gt;Classification&lt;br&gt;Chair: Incheon Paik&lt;br&gt;Venue: S5</td>
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<td>Session C-3: 6&lt;br&gt;System and Architecture&lt;br&gt;Chair: Hitoshi Oi&lt;br&gt;Venue: S6</td>
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<td>Session E-4: 5&lt;br&gt;Video Processing and Analysis&lt;br&gt;Chair: Hirohide Demura&lt;br&gt;Venue: S7</td>
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<td>Session D-3: 4&lt;br&gt;Application Systems&lt;br&gt;Chair: Yangwoo Ko&lt;br&gt;Venue: S8</td>
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<tr>
<td>18:00–19:00</td>
<td><strong>Break</strong></td>
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<tr>
<td>19:00–</td>
<td>Conference Banquet: Aizu-Wakamatsu Washington Hotel&lt;br&gt;Chair: Kazuaki Yamauchi</td>
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**Wednesday, 17 October 2007**

8:30–18:00  **Registration**

9:00–10:00  **Keynote Address II**

The IUPS Physiome Project (Peter J. Hunter)
Chair: Daming Wei
Venue: Auditorium

10:00–10:10  **Break**

10:10–11:30

<table>
<thead>
<tr>
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<tr>
<td>Chair: Ryuichi Oka</td>
<td>Chair: Toshiaki Miyazaki</td>
<td>Chair: Dongseung Kim</td>
<td>Chair: Incheon Paik</td>
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11:30–11:40  **Break**

11:40–13:00

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<tr>
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<tr>
<td>Web Services and Applications II</td>
<td>Sensor Network Architecture and Model</td>
<td>Video Distribution and Networks</td>
<td>QoS and Security</td>
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<tr>
<td>Chair: Alexander Vazhenin</td>
<td>Chair: Shiyong Zhang</td>
<td>Chair: Jungpil Shin</td>
<td>Chair: Baoliu Ye</td>
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13:00–14:00  Lunch Break: University Cafeteria

14:00–15:40

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<td>XML and DB</td>
<td>HPC Application</td>
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<td>Chair: Frank Ekpar</td>
<td>Chair: Yongwoo Lee</td>
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15:40–16:00  **Coffee Served**

16:00–18:00

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<tr>
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<tr>
<td>Classification</td>
<td>System and Architecture</td>
<td>Video Processing and Analysis</td>
<td>Application Systems</td>
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<td>Chair: Incheon Paik</td>
<td>Chair: Hitoshi Oi</td>
<td>Chair: Hirohide Demura</td>
<td>Chair: Yangwoo Ko</td>
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18:00–19:00  **Break**

19:00–  Conference Banquet: Aizu-Wakamatsu Washington Hotel<br>Chair: Kazuaki Yamauchi
### Thursday, 18 October 2007

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<tr>
<td>9:00–10:40</td>
<td>Imprecise Data and Feature Selection</td>
<td>Scheduling and Optimization</td>
<td>Data Processing and Interfaces</td>
<td>Protocol and Algorithms II</td>
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<td>Chair: Junya Terazono</td>
<td>Chair: Yuichi Okuyama</td>
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**Break 10:40–10:50**

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<td>Chair: Shuxue Ding</td>
<td>Chair: Hiroshi Saito</td>
<td>Chair: Noriaki Asada</td>
<td>Chair: Satoru Ohta</td>
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**Lunch and Sightseeing (Bus Tour) 12:50–18:00**

### Friday, 19 October 2007

<table>
<thead>
<tr>
<th>Time</th>
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<th>Session D-6:</th>
<th>Session G-3:</th>
<th>Session J-1:</th>
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<tr>
<td>9:00–10:00</td>
<td>Intelligent Systems in Data Handling I</td>
<td>Protocols and Algorithms IV</td>
<td>VLSI Design</td>
<td>Web Services and Technologies</td>
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<td>Chair: Ryuichi Oka</td>
<td>Chair: Baoliu Ye</td>
<td>Chair: Kenichi Kuroda</td>
<td>Chair: Li Guo</td>
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**Break 10:00–10:20**

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<td>11:20–11:30</td>
<td>Intelligent Systems in Data Handling II</td>
<td>Analysis and Evaluation</td>
<td>Text Processing and Analysis</td>
<td>SOA and Grid Technologies</td>
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<td>Chair: Keitaro Naruse</td>
<td>Chair: Satoru Ohta</td>
<td>Chair: Dejian Ye</td>
<td>Chair: Yuzhong Sun</td>
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**Break 11:30–13:10**

**Lunch Break: University Cafeteria 13:10–14:00**
Technical Sessions A: Database and Data Mining

Session A-1: XML and DB

Active XML Schema Containment Checking based on Tree Automata Theory
*Haitao Ma and Zhongxiao Hao*

An Efficient Detection of Conflicting Updates in Valid XML
*Changwoo Byun, Ilkook Yun, and Seog Park*

A Journey towards More Efficient Processing of XML Data in (O)RDBMS
*Irena Mlynkova*

Schema-aware Keyword Search over XML Streams
*Weidong Yang and Baile Shi*

SemFilter: A Simple and Efficient Semantic Filtering of XML Messages
*Jaehoon Kim and Seog Park*

Session A-2: Classification

Ensembles of Region Based Classifiers
*Sungha Choi, Byungwoo Lee, and Jihoon Yang*

Neural Network for Text Classification Based on Singular Value Decomposition
*Cheng Hua Li and Soon Cheol Park*

An Efficient Method of Genetic Algorithm for Text Clustering Based on Singular Value Decomposition
*Wei Song and Soon Cheol Park*

Predicting Coronary Artery Disease from Heart Rate Variability using Classification and Statistical Analysis
*Heon Gyu Lee, Ki Yong Noh, Hong Kyu Park, and Keun Ho Ryu*

Session A-3: Imprecise Data and Feature Selection

Deputy Mechanism for OLAP over Imprecise Data and Composite Measure
*Junqiang Liu and Xiandi Yang*

CTU-Mine: An Efficient High Utility Itemset Mining Algorithm Using the Pattern Growth Approach
*Alva Erwin, Raj P. Gopalan, and N.R. Achuthan*

An Experimental Study on Feature Subset Selection Methods
*Chulmin Yun, Donghyuk Shin, Hyunsung Jo, Jihoon Yang, and Saejoon Kim*

Comparison of two feature selection methods in Intrusion Detection Systems
*Mohammad Javad Fadaei eslam, Behroz Minaei, Mahmood Fathi, and Mohsen Soryani*

Session A-4: Novel Information Processing
Generic Component: A Generic Programming Approach  
*Chen Yewang, Zhao Wenyun, and Peng Xin*

Virtual Organization: A New Approach in IT  
*Mohammad Reza Nami and Djamshid Tavangarian*

Effective Processing over Continuous Data Stream  
*Misook Bae*

Classification Algorithm Based on Human Social Behavior  
*Arit Thammano and Jittraporn Moolwong*

A New Trajectory Search Algorithm Based on Spatio-temporal Similarity on Spatial Network  
*Jae-Woo Chang, Rabindra Bista, Ji-Hee Kim, and Young-Chang Kim*

An Efficient Method to Determine the Diagonal Loading Factor for PAM Communication System  
*Wenlong Liu and Shuxue Ding*

**Session A-5: Intelligent Systems in Data Handling I**

Dealing with Query Contention Issue in Real-time Data Warehouses by Dynamic Multi-level Caches  
*Ziyu Lin, Dongqing Yang, Guofie Song, and Tengjiao Wang*

The Bump Hunting Method and Its Accuracy Using the Genetic Algorithm with Application to Real Customer Data  
*H. Hirose, T. Yukizane, and T. Deguchi*

User-oriented Materialized View Selection  
*Ziyu Lin, Dongqing Yang, and Tengjiao Wang*

**Session A-6: Intelligent Systems in Data Handling II**

Implementation of the moonquake database  
*Junya Terazono*

Walking Stability by Age — A Feature Analysis Based on a Fourteen-Linkage Model  
*Bofeng Zhang, Takehiro Kanno, Wenxi Chen, Gengfeng Wu, and Daming Wei*

A Temporal Meta Database System for 3D Objects  
*Vo Thi Ngoc Chau and Suphamit Chittayasothorn*

An Efficient Goalie Strategy Using Twin Hidden Markov Models  
*T. Srinivasan, Srikanth P. Srinivasan, Shravan Kumar Alur, and Pravin Chandrasekaran*

A Mechanism for Improving Web Server Performance using Fuzzy Concept  
*Bumjoo Park, Kiejin Park, Dongmin Shin, and Sungsoo Kim*

**Technical Sessions B: Internet and Web Application**

**Session B-1: Internet and Web Performance**

Performance Evaluation of TD-Learning Methods for Bandwidth Provisioning  
*Mohsen Jahanshahi and Mohammad Reza Meybodi*

A Parallel Downloading Algorithm for Redundant Networks
Ke Li, Wanlei Zhou, and Shui Yu

Session B-2: Web Analysis

Web Image Annotation based on the Decision Rules Inferred by the Statistical Analysis of Web Pages
Park Joohyun, Giseok Choi, Jongwon Lee and Nang Jongho

Semantic Retrieval of Text Documents
Vitaly Klyuev and Vladimir Oleshchuk

Worrisome Rich-get-richer? Not The True Story!
Mingda Wu, Qiancheng Jiang, and Yan Zhang

Component based Approach to handle Synonym and Polysemy in Folksonomy
Sun-Sook Lee and Hwan-Seung Yong

Session B-3: Web Services and Applications I

Automatic Web Services Composition Using Combining HTN and CSP
Incheon Paik and Daisuke Maruyama

Dynamic Personalization for Book Recommendation System using Web Services and Virtual Library Enhancements
Takanori Kuroiwa and Subhash Bhalla

Web-Based Interface Architecture for the Improvement of Accessibility to Computational Resources on a Cluster System
Huioon Kim, Kyungwon Chun, Kil Su Jung, and Youngjoo Chung

A Multi-Clustering Hybrid Recommender System
Sutheera Punthereanurak and Hidekazu Tsuji

Session B-4: Semantic Web

Proof for Multi-Agent Communication of Semantic Web Information
Vuong Xuan Tran and Hidekazu Tsuji

Semantic Web Based Simulation Service Customization and Composition
Tong Zhang, Yun-sheng Liu, and Ya-bing Zha

Semantic Representation and Ontology Construction in the Question Answering System
Ying-Hong Wang, Wen-Nan Wang, and Yi-Hsiang Yen

Semantic Information System based on Web Service and Ontology for Grid Computing Environment
Tae-nyon Kim and Chang-Sung Jeong

Session B-5: Web Services and Applications II

A Semi-automated Negotiation Process to Improve the Usability for Online Marketplaces
Lung Ngai, Phil Mak, Wan-Cheng Ni, and Lian-Chen Liu

SiteRank-Based Crawling Ordering Strategy for Search Engines
Qiancheng Jiang and Yan Zhang
Preserving Consistency Based on Wall-Time Precedence in P2P DVEs
Gao Liping and Gu Ning

Speech and Song Search on the Web: System Design and Implementation
Yuichi Yaguchi, Yoshiyuki Watanabe, Keitaro Naruse, and Ryuichi Oka

Technical Sessions C: High Performance Computing

Session C-1: Task and Resource Management

Web Service-based Dynamic Resource and Job Managements for Large-scale and Long-time Grid Computations
Yingwen Song, Yoshio Tanaka, Hiroshi Takemiya, and Satoshi Sekiguchi

Building single fault survivable parallel algorithms for matrix operations using redundant parallel computation
Yunfei Du, Panfeng Wang, Hongyi Fu, Haifang Zhou, and Xuejun Yang

A Job Management System for a Large Scale Grid System
Yong Woo Lee and Phil Doo Hong

Session C-2: HPC Application

Load balanced Parallel Prime Number Generator with Sieve of Eratosthenes on Cluster Computers
Soonwook Hwang, Kyusik Chung and Dongseung Kim

Evaluating the Performance of Basic Linear Algebra Subroutines on a Torus Array Processor
Ahmed Zekri and Stanislav Sedukhin

Evolutionary Programming with Operator Adaptation
Yong Liu

An Integer Partition Based Algorithm for Coalition Structure Generation
Veera Boonjing and Santit Narabin

Visualization of Message Races in MPI Parallel Programs
Mi-Young Park, Yong-Kee Jun, and Hyuk-Ro Park

Session C-3: Systems and Architecture

Design of Modular Rendering Pipeline
Tomas Agoston, Csaba Csuprai, Juraj Onderik, and Roman Durikovic

A Reliable Data Management Method for Parallel File System
Yanmei Huo, Liang Hu, Kexin Yang, and Jiubin Ju

Dedicated Disk I/O Strategies for IPTV Live Streaming Servers Supporting Timeshift Functions
Cheng Huang, Chenjie Zhu, Yi Li, and Dejian Ye

Implementation and Evaluation of Specific Data-Intensive Scientific Applications on the FT64 Stream Processor
Yu Deng, Xuejun Yang, Xiaobo Yan, Ying Zhang, and Jing Du

A Cluster File System for High Data Availability using Locality-Aware Partial Replication
Jinseok Kim, Sangman Sim, and Sungyong Park
A Performance Evaluation Methodology in Virtual Environments
Jiyong Jang, Saeyoung Han, Jinseok Kim, Sungyong Park, Seungjo Bae, and Youngchoon Woo

**Technical Sessions D: Networking and Mobile Computing**

**Session D-1: QoS and Mobile Protocol**

Challenge in QoS Supporting via Integrating Differentiated Service and Multipath Routing on Mobile Ad-Hoc Network
Mostafa Esmaeili, Hamid Alipour, Maghsoud Abbaspour, and Mahshid Rahnama

Security and QoS Optimization for Distributed Real time Environment
Ahmad Jalal and Mian Ahmad Zeb

An Enhanced Dynamic and Distributed Domain-Based Handoff Scheme for Mobile IPv6
Xuebin Ma, Tao Wen, Quan Guo, and Gang Wang

**Session D-2: Protocols and Algorithms I**

Modeling and Simulating IPv6 Mobility
Xu Lei, YongSoo Kim, and Richard Lai

Stochastic Model of Finite Buffer Priority Queuing System with Multi-Type Batch Arrival and General Rejection
Attila Körösi, Balázs Székely, and Csaba Lukovszki

Fast Recovery from Hidden Node Collision for IEEE 802.15.4 LR-WPANs
Shengzhi Zhang and Sang-Jo Yoo

Word Indexing for Mobile Device Data Representations
Henry Larkin

**Session D-3: Application Systems**

KadStreaming: A Novel Kademlia P2P Network-based VoD Streaming Scheme
Jie Wu, BiSheng Liu, ShiYong Zhang, ZhiHui Lu, and YiPing Zhong

Development of i-appli for Women’s Health Information Management System
Takehiro Kanno, Wenvi Chen, and Masumi Kitazawa

An Efficient Shared Learning Scheme for Layered Video Streaming over Application Layer Multicast
Jongmin Park, Seungik Lee, Yangwoo Ko, and Dongman Lee

A Context-Aware Framework for Mobile Navigation Service
Wonik Choi, Hyunduk Kim, Jinsu Kim, and Jinseok Chae

**Session D-4: Protocols and Algorithms II**

A Predictive and Synchronized Neighborhood Tracking Scheme for Mobile Ad Hoc Networks
Hui Xu, Jinsung Cho, and Sungyung Lee

A Fast Path Recovery Scheme for Publish/Subscribe in Mobile Ad Hoc Networks
Sang-chul Moon, Yangwoo Ko, and Dongman Lee

Scalable and Statistically Secure Fingerprinting Scheme for Mobile Game Content Distribution
Session D-5: Protocols and Algorithms III

A Novel Method for Leader Election Algorithm
Mehdi Mirakhorli, Amir Azim Sharifloo, and Abolfaz Haghighat

Task Allocation Adaptable to Network Topology among Cooperative Heterogeneous Agents
Zheng Xiao, ShiYong Zhang, and Chengrong Wu

Adapting Superpeer Size Using Particle Swarm Optimization for Self-Organizing Superpeer Ring with Loosely-Consistent DHT
Saeyoung Han and Sungyong Park

Session D-6: Protocols and Algorithms IV

Overview of LDPC Codes
Zongjie Tu and ShiYong Zhang

Optimal Zero-Correlation Zone Sequence Set Constructed from a Perfect Sequence
Takafumi Hayashi

Computing the Availability and MTTF of Shared Protection Systems
Hirokazu Ozaki and Atsushi Kara

Session D-7: Analysis and Evaluation

Performance of SD-method Compare with OFDM Method
Rongzhen Jin, Naoki Suehiro, and Changgao Han

Innovative Mobile Phone Services Based on Next Generation Infrastructure in Japan — A Survey
Akira Sasaki, Kazuaki Yamauchi, Wenxi Chen, Michael Cohen, Daming Wei, and Zixue Cheng

Performance Evaluation of Handling Interrupts Schemes in Gigabit Networks
Salman AlQahtani

Performance Comparison of Contention-Based Channel Access Mechanism of IEEE 802.11 and 802.11e
Mayank Kanthali, Apurva Gaiwak, and Prakash D Vyawahare

Technical Sessions E: Data, Multimedia, and Virtual Reality

Session E-1: Computer Graphics and Virtual Reality

Spin-Around: Phase-locked Synchronized Rotation and Revolution in Multistandpoint Panoramic Browsers
Michael Cohen, Ishara Jayasingha, and Julián Villegas

Control of Navigable Panoramic Imagery with Information Furniture: Chair-Driven 2.5D Steering Through Multistandpoint QTVR Panoramas with Automatic Window Dilation
Michael Cohen, Kunihiro Doi, Takayuki Hattori, Yorinobu Mine

Synæsthetic Music, or the Ultimate Ocular Harpsichord
Julián Villegas and Michael Cohen

A Shader for Virtual X-Ray Imaging
Shin Hasegawa, Hidetaka Funayama, and Daming Wei
Session E-2: Video Distribution and Networks

The Design and Implementation of a Scalable Wireless Video Streaming System Adopting TCP Transmission Mode
Ying Chai and Dejian Ye

Clear P2P IPTV Live Streaming System for Set-top Box Clients
Chenjie Zhu and Dejian Ye

A Stochastic Differential Equation Model for Queues on Network Video Traffic
Wenyuan Hu and Dejian Ye

Packet Reversed Packet Combining Scheme
Chandan Bhunia

Session E-3: Image Processing

Content and Illumination Invariant Blur Measures for Realtime Video Processing
Sebastien Harasse, Laurent Bonnaud, and Michel Desvignes

Automatic Lung Segmentation in CT Images using Anisotropic Diffusion and Morphology Operation
Hyesuk Kim and Gueesang Lee

Flame Temperature Field Measurement Using Improved Generalized Cross-Validation Method
Yinghui Zhou and Dezhong Zheng

Implementation and Evaluation of a High Speed License Plate Recognition System on an FPGA
Takamasa Kanamori, Masatoshi Arai, Daisuke Konno, Tomomichi Nanba, Yoshiaki Ajioka, and Hideharu Amano

Motion Estimation for Real Time Transmission on H.264/AVC
Hyosun Yoon

Session E-4: Video Processing and Analysis

Reducing Spatial Resolution for MPEG-4 / H.264 Transcoding with Efficient Motion Reusing
Toan Nguyen, GueeSang Lee, JaeMyeong Yoo, and Sangchan Park

Template-Based Adaptive Video Coding Algorithm in High Resolution Laptop Video Conference Systems
Chundong Wang and Dejian Ye

Gradient Based Error Concealment for H.264 Inter Frames
Toan Nguyen Dinh, JaeMyeong Yoo, and GueeSang Lee

Tracking and Motion Analysis of Impact Fragments
Naoto Miura, Hirohide Demura, Naru Hirata, and Noriaki Asada

Design and Implementation of A Novel P2P-based VOD System Using Media File Segments Selecting Algorithm
ZhiHui Lu, ShiYong Zhang, Jie Wu, WeiMing Fu, and YiPing Zhong

Session E-5: Data Processing and Interfaces

Methods and Technologies for Enhancing and Optimizing Power Plant Inspection Procedures
Kamen Kanev, Zixue Cheng, and Nikolay Mirenkov
Design of a Clinical Knowledge Base for Heart Disease Detection
Ki-Hyeon Kim and Ho-Jin Choi

Performance Evaluation of a Temporal Sequence Learning Spiking Neural Network
Taiki Ichishita and Robert H. Fujii

Design and Implementation of a Real-time Video Player on Tiled-Display System
Giseok Choe, Jeongsoo Yu, Jeonghoon Choi, and Jongho Nang

On the Interactive Visualization of Very Large Image Data Sets
Frank Ekpar, Masaaki Yoneda, and Hiroyuki Hase

**Session E-6: Image Processing and Analysis**

A Leaf Image Retrieval Scheme Based On Partial Dynamic Time Warping and Two-Level Filtering
Yoon-Sik Tak and Een-Jun Hwang

Local Binary Patterns on Hexagonal Image Structure
Xiangjian He, Jianmin Li, Wenjing Jia, Qiang Wu and Tom Hintz

A Flexible Non-Linear PCA Encoder for Still Image Compression
Lu Chuanfeng, Zhao Qiangfu and Liu Zhiwen

Influence of Imaging Condition on Matching Point Detection
Tomoki Hodokuma, Naru Hirata, Hirohide Demura and Noriaki Asada

**Session E-7: Text Processing and Analysis**

Identification of Japanese and English Script from a Single Document Page
Sukalpa Chanda, Umapada Pal, and Fumitaka Kimura

Word Segmentation for the Sequences Emitted from a Word-Valued Source
Takashi Ishida, Toshiyasu Matsushima, and Shigeichi Hirasawa

Using Contour Analysis to Improve Feature Extraction in Thai Handwritten Character Recognition Systems
Jarernsri Mitrpanont and Urairat Limkonglap

Statistical Evaluation of Measure and Distance on Document Classification Problems in Text Mining
Masayuki Goto, Takashi Ishida, and Shigeichi Hirasawa

Image Skew Detection for Formulas without Fraction Bars Using Connected Components Analysis
Lichun Zhang, Yue Lu, and Patrick Wang

**Session E-8: Static Image Segmentation**

Recognition Algorithm for Topographic Features
Naoto Harada, Takafumi Hayashi, Naru Hirata, Hirohide Demura, and Noriaki Asada

Unsupervised Image Segmentation Using Automated Fuzzy c-Means
Supatra Sahaphong and Nuaysuwat Hiransakolwong

Vector Image Segmentation for Content-Based Vector Image Retrieval
Takahiro Hayashi, Rikio Onai, and Koji Abe

Segmentation by Morphological Reconstruction and Non-Linear Diffusion
JaeMyeong Yoo and GueeSang Lee
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Session F-1: Secure Framework

The Automatic Defense Mechanism for Malicious Injection Attack
*Jin-Cherng Lin* and *Jan-Min Chen*

Botnet Detection by Monitoring Group Activities in DNS Traffic
*Hyunsang Choi, Hanwoo Lee, Heejo Lee, and Hyogon Kim*

An Internet Voting Protocol with Receipt-free and Coercion-Resistant
*Bo Meng*

Session F-2: Watermarking and Encryption

Towards Quantization Index Modulation Strategies on Content-based Watermarking Schemes
*Pedro Martins* and *Paulo Carvalho*

Exploiting X.509 Certificate and Multi-Agent System Architecture for Role-based Access Control and Authentication Management
*Somchart Fugkeaw, Piyawit Manpanpanich, and Sekpon Junlapremjitt*

Implementation of an Audio Watermarking System using CDMA Modulations
*Ghnimi Said* and *Cherif Adnen*

DWT-Based Audio Watermarking Resistant to Desynchronization
*Haiyan Liu, Xuefeng Zheng, and Ying Wang*

Session F-3: Network Security

An Effective Trust Establishment Scheme for Authentication in Mobile Ad-Hoc Networks
*Guojun Wang, Qiong Wang, Jiannong Cao, and Minyi Guo*

Home Network Framework based on OSGi Service Platform Using SSL Component Bundle
*Eun-Ae Cho, Chang-Joo Moon, Dae-Ha Park, and Doo-Kwon Baik*

An Approach for Network Security Analysis using Logic Exploitation Graph
*Mao Handong, Zhang Weiming, and Chen Feng*

Information Security: End User Behavior and Corporate Culture
*Steven Woodhouse*

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A Dataflow Analysis for Mode Set Optimization in DSP Instruction Sets
*Jiho Chu, Youngsun Han, and Seon Wook Kim*

Name-based Write Barriers in Real-Time Java
*Teresa Higuera-Toledano*
Swap-aware Garbage Collection for NAND Flash Memory Based Embedded Systems
*Ohhoon Kwon and Kern Koh*

Deadline Scheduling with Processor Affinity and Feasibility Check on Uniform Parallel Machines
*Vahid Salmani, Mahmoud Naghibzadeh, and Mohsen Kahani*

System-level Power Management for Mobile Devices
*Gerard Bosch Creus and Petri Niska*

**Session G-2: Platform and Application**

A Visual Modeling Environment for Embedded Component Systems
*Takuya Azum, Shimpei Yamada, Hiroshi Oyama, Yukikazu Nakamoto, and Hiroaki Takada*

Enabling Reconfigurable SoC in Multimedia Processing
*Ying Wang, Wei-Nan Chen, Xiao-Wei Wang, Hong-Jun You, and Cheng-Lian Peng*

A Low-Power Application Specific Instruction Set Processor Architecture Using Asynchronous Function Units
*Yong Li, Zhi-ying Wang, and Kui Dai*

Implementation of Architecture Concepts for Hardware Agent Systems
*Joerg Schneider, Marcel Naggatz, and Rainer Spallek*

Compiler Construction for Lockstep Execution of Multithreaded Processors
*Huong Giang Nguyen, Seokjoong Hwang, and Seon Wook Kim*

Performance Comparison of Camera Interface Methods in a Mobile Handset
*Minyoung Eom, Yeoung Kyu Lim, and Tae-ik Kang*

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Indirect Tag Search Mechanism for Instruction Window Energy Reduction
*Shingo Watanabe, Akihiro Chiyonobu and Toshinori Sato*

A Control Circuit Synthesis Method for Asynchronous Circuits in Bundled-Data Implementation
*Takao Konishi, Naohiro Hamada, and Hiroshi Saito*

Adaptive Optical Proximity Correction Using an Optimization Method
*Tetsuaki Matsunawa, Hirokazu Nosato, Hidenori Sakasashi, Masahiro Murakawa, Eiichi Takahashi, Tsuneo Terasawa, Toshihiko Tanaka, Osamu Suga, and Tetsuya Higuchi*

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An Automatic Tool for Generating Test Cases from the System's Requirements
*Rosziati Ibrahim, Mohd Zainura Saringat, Noraini Ibrahim, and Noraida Ismail*

An automatic software test-data generation scheme based on data flow criteria and genetic algorithms
*Andreas Andreou, Kypros Economides, and Anastasis Sofokleous*

Generating Wizards for Initializing Software Components
*Hironori Washizaki, Takao Adachi, and Yoshiaki Fukazawa*
Session H-2: Modeling and Simulation

FMBP (A Method to Generate Feature Model from Business Process Model for Business Applications)
*Jongsu Bae and Sungwon Kang*

The Value Gap Model: Value-Based Requirements Elicitation
*Sang Won Lim, Taek Lee, and Hoh Peter In*

Runtime Service Discovery and Reconfiguration using OWL-S based Semantic Web Service
*Jinhan Kim, Jaejeong Lee, and Byungjeong Lee*

Constructing a Reference Model of a Grouped-Metadata Object and its Change Model
*Liangli Ma and Yongjie Li*

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A Robot Programming Based on Frame Representation of Knowledge
*Shigeto Aramaki, Tatsuichirou Nagai, Masato Kawamura, and Yasutaka Hatada*

Representation and Programming for Robotic Assembly Task Using an Assembly Structure
*Tatsuichiro Nagai, Shigeto Aramaki, and Isao Nagasawa*

A Method for Solving a Bipartite-graph Clustering Problem
*Keiu Harada, Takuya Ishioka, Ikuo Suzuki, and Masashi Furukawa*

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Towards a Formal Framework for Product Line Test Development
*Sungwon Kang, Jihyun Lee, Myungchul Kim, and Woojin Lee*

A Metamodeling Approach to Tracing Variability between Requirements and Architecture in Software Product Lines
*Mikyeong Moon and Heung Seok Chae*

A Formal Approach to Verify Mapping Relation in a Software Product Line
*Tonny Kurniadi Satyananda, Danhyung Lee, and Sungwon Kang*

The Design of a Multimedia Protocol Analysis Software Environment
*Tony Tsang, Yong Soo Kim, and Richard Lai*

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A Secure Communication Protocol for Low-Cost RFID System
*Jung-Hyun Oh, Hyun-Seok Kim, and Jin-Young Choi*

Design of an Aspect-Based Framework to Improve the Dynamic Management of RFID Middleware
*Hee Young Hwang and Jin Tak Choi*

Design and Implementation of an Active RFID System for Fast Tag Collection
*Won-Ju Yoon, Sang-Hwa Chung, Seong-Joon Lee, and Young-Sik Moon*

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Probabilistic Isolation of Malicious Vehicles in Pseudonym Changing VANETs  
Bisheng Liu, YiPing Zhong, and ShiYong Zhang

ANFIS for Adaptive Personal Space Determination for Ubiquitous Robots  
Janaka Chaminda Balasuriya, Chandrajith Ashuboda Marasinghe, and Keigo Watanabe

Effective Service Decision using Ambient-based HHMM in Smart Home System  
Jiyong Park, Dohoon Kim, Taek Lee, and Hoh Peter In

Dynamic Activity Lifecycle Management in Ubiquitous Computing Environments  
Hokyum Kim, Insuk Park, Soonju Hyun, and Dongman Lee

**Session I-3: Algorithms for Sensor Networks**

A Matrix-based Random Key Pre-distribution Scheme for Wireless Sensor Networks  
Ting Yuan, Shiyong Zhang, and YiPing Zhong

Distributed Coloring Algorithm for Wireless Sensor Networks and Its Applications  
Ryouhei Kawano and Toshiaki Miyazaki

A Novel Reference Node Selection Algorithm Based on Trilateration for Indoor Sensor Networks  
Guangjie Han, Deokjai Choi, and Wontaek Lim

**Session I-4: Energy Control Issue in Sensor Networks**

A Two Base Stations Algorithm for Energy Balanced Data Propagation in Smart Home Sensor Networks  
Bao Nguyen Nguyen and Deokjai Choi

Game Theoretic Distributed Energy Control in Sensor Networks  
Jia Zeng and Chundi Mu

An Aggregation Tree Constructing Algorithm Based on Energy Consumption Assessment  
Dayang Sun, Yanheng Liu, and Aimin Wang

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A System Architecture for Monitoring Sensor Data Stream  
Yang Koo Lee, Ling Wang, and Keun Ho Ryu

Product Line Approach to Role-based Middleware Development for Ubiquitous Sensor Network  
Woojin Lee, and Sungwon Kang

e-Petri Net Model for Programming Integrated Network of Wireless Sensor Networks and Grids  
Adi Mallikarjuna Reddy V, A V U Phani Kumar, and D. Janakiram

New Join Operator Definitions and Implementation Methods for Sensor Networks  
Seungjae Lee, Changhwa Kim, and Sangkyung Kim

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An Adaptive Resource Flowing Scheme Amongst VMs in a VM-Based Utility Computing  
Ying Song, Yuzhong Sun, Hui Wang, and Xining Song
Using Moodle and Other Software Tools In EFL Courses In a Japanese IT University
John Brine, Ian Wilson, and Debopriyo Roy

A Formal Framework for Description of Semantic Web services
Jiang Zhixiong, Qian Leqi, and Pen Xin

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A Fault Detection Mechanism for Service-Oriented Architecture Based on Queueing Theory
Hao-peng Chen and Cheng Zhang

Enabling QoS for Service-Oriented Workflow on GRID
L. Guo, A. S. McGough, A. Akram, D. Colling, J. Martyniak, and M. Krznaric

A Messaging Network to Realize an SOA-based System
Takafumi Hayashi, Hideyuki Fukuhara, Ryutaroh Fujita, Yoshiaki Miyazaki, and Senroh Saito

Ontology Based User Profiling in Personalized Information Service Agent
Jianguo Pan, Bofeng Zhang, Shufeng Wang, Genfeng Wu, and Daming Wei

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A Development of Ubiquitous Biomedical Interface for Facilitating Medical Device Connectivity
Tung Tran, Hwa-Sun Kim, and Hune Cho

Development of P300 Detection Algorithm for Brain Computer Interface in Single Trial
Hiroyuki Ishita, Motoki Sakai, Ji’nei Watanabe, Wenxi Chen, and Daming Wei

Pathological Voice Classification Based on a Single Vowel's Acoustic Features
Ce Peng, Wenxi Chen, Xin Zhu, Baikun Wan, and Daming Wei

Web Based Injury Surveillance System (WBISS) for Road Traffic Injuries
Achala Upendra Jayatilleke, Chandrajith Ashubodha Marasinghe, Shinji Nakahara, ST Nandasara, Achini Jayatilleke, and Masamine Jimba

RβHpred: Prediction of Right-Handed β-helix Fold from Protein Sequence Using SVM and Protein Threading
Siddharth Singh, Krishnan Hajela, and Ashwini Ramani

Development of Digital Image Surface and Its Application to Derived 12-lead ECG
Kunio Takahashi and Daming Wei