Table of Contents

Intimacy-based approach to reasoning customer trust for intelligent e-commerce systems ................................................................. 1
Ohbyung Kwon and Kwangho Park

A Trust and Reputation Management Framework for Web Services, .............. 4
Nianhua Yang, Xin Chen and Huiqun Yu

Binary Wavelet Transform Watermarking for Localizing Tampered Regions of Binary Images .................................................................................................. 7
Oh-Jin Kwon, Won-Gyu Kim and Youngseop Kim

Investigate the System Performance by Tuning the TCP Congestion Parameters at Client Device .......................................................... 10
Jia Uddin, Jong-Myon Kim, Myeong-Jae Yi, Tae-Gong Kim

A Network Management System with a Dynamic Routing Function Using PoC and Presence Service in the IMS nodes ............................. 13
Jae-Hyoung Cho, Jae-Oh Lee

On the Study of Effective Capacity in Two-tier Wireless Heterogeneous Networks ........................................................................... 16
Xing Zhang, Zhuowen Su, Wenbo Wang

Analysis the Performance of Three Laplacian Matrices in Detecting Protein Complex by Spectral Clustering Method ........................................ 18
DONG Yun-yuan, Keith C.C. Chan, YANG Jun, LIU Qi-jun, WANG Zheng-hua

A Novel Periodic Pattern Mining Algorithm ................................................. 23
Jieh-Shan Yeh, Szu-Chen Lin, Shueh-Cheng Hu, and Shiuan-Yun Ke

Localization of Sender-based Message Logging and Its Recovery for Distributed Broker-based Systems .................................................... 26
Jinho Ahn
Enhanced Breast Mammograms Classification using Bayesian Classifier ..........28
Muhammad Talha, Ghazali Bin Sulong, Abdulrahman Alarifi

Range-based Probabilistic GNN Queries in LBS .................................................31
Peng Chen, Junzhong Gu, Xin Lin, Rong Tan

An Optimal Channel Allocation Algorithm in Wireless Mesh Networks ..........34
Lin Chen, Jie Huang, Da Liu

Source Localization for Uniform Noise Maximum Likelihood
Estimation Method ...............................................................................................37
AN Qin-li, CHEN Jian-feng, WANG Xu-hu

Conceptual Modeling of Moving Objects in Indoor Space ..........................40
Peiquan Jin, Lanlan Zhang, Lei Zhao, Lihua Yue

Security Analysis of Zhao and Gu's Key Exchange Protocol .........................43
Junghyun Nam, Juryon Paik, Dongho Won

Supporting Collaborative Services over CMIS Repository ............................46
Hong-Chang Lee, Jong-Eun Park, Myung-Joon Lee

A Design of Index and Query Schema for XML Documents Based on
a Concept of Database Structure ....................................................................49
Youngrok Song, Sangmin Lee

An Empirical Study on Strongly Connected Components within
the Malaysian Web ............................................................................................52
Yong-Jin, Tee and Lay-Ki, Soon

Two-Level Cache Structure based on User Logs ..........................................55
Weizhe Zhang, Hui He, Zhijie Qiu, Deqiang Zhang

The Design of BLU Driver with Optimum Power Control Function .............58
Seung-Woo Lee, Sun-Yeob Kim
A Mutual Position Detection based on Relative Motion Recognition of Multi-Modular Robots ................................................................. 61
Byung Rak Son, Hyun Lee, Jung Eun Kim, Dong Ha Lee

Feature Extraction and Selection in Speech Emotion Recognition .............. 64
Yixiong Pan, Peipei Shen, Liping Shen

Quality Assessment for Nonlinear Dimensionality Reduction using Procrustes Analysis ........................................................................ 70
Erika Torres and Fu Dongmei

Object Detection Using Contour Fragments ............................................... 73
Xiaofeng Zhang, Qiaoyu Sun, Yue Lu

Internal Temperature Measurement of Micro PCR Chip with Thermocouple .... 76
Jong-Dae Kim, Chan-Young Park, Ok-Dong Gwak, Sang-Yoon Kim, Deuk-Joo Lee, Yu-Seop Kim, Hye-Jung Song

A Collaborative Recommender System: Lexicographic Consensus and Web Usage Mining Approach ......................................................... 79
Seok Kee Lee, Young-Gab Kim, and Do-Gil Lee

Real-Time Systems Modeling and Verification with Aspect-Oriented Timed Statecharts .......................................................... 82
Xinxiu Wen, Huiqun Yu

English Learning and IT Usage among Korean University Students Preparing for TOEIC Exam ........................................................... 85
Soonjeong Jee; Hee-Cheol Kim

A PRAM-aware Buffer Cache Scheme for DRAM and PRAM Hybrid Main Memory .......................................................... 88
Yeonseung Ryu

A Patent Analysis Model Combining Document Clustering and Time Series Analysis .......................................................... 91
Sang Sung Park, Sunghae Jun
Data Mining using Random Forests to Predict the Presence of Cylinder Bands in Rotogravure Printing
Hyontai Sug

A String Similarity Measure Based on Orthographic and Phonetic Similarity for Spelling Correction
Do-Gil Lee, Ilhwan Kim and Seok Kee Lee

Securing Information by Using Encryption of Pseudorandom Code
Rahat Ullah, Shahid Latif, Amjad Ali

Decimating FIR filter based on linked accumulators
Tanee Demeechai; Siwaruk Siwamogsatham

Emotion Recognition from Text Using Situational Information and Personalized Emotion Model
Yong-soo Seol, Han-woo Kim, Dong-joo Kim

Towards Discovery and Exchange Location Information in a Ubiquitous Environment
Qi Liu, Nigel Linge, Feng Gao, Jin Wang, Tinghuai Ma, Sai Ji

Q-Filtering for Sensitive Distance Estimates on Finding Continuously K-Nearest Neighbors over Distributed Streams
Ling Wang, Tie Hua Zhou, Kyung Joo Cheoi, Kwang Deck Kim and Keun Ho Ryu

Continuous Reverse Skyline Query Processing over Moving Objects in LBS
Jongtae Lim, Yonghun Park, Kyoungsoo Bok, Jaesoo Yoo

A Hybrid Query Expansion Algorithm Combined Global Analysis and Ontology Technology
Zhixiao Wang, Qiang Niu

Design of an ISO/IEEE 11073 Gateway for u-Healthcare Services
KeeHyun Park, JuGeon Pak

Robust Face Recognition Using Probabilistic Models of Facial Images
Kwanyong Lee, Hyeyoung Park
Hybrid Features based Gender Classification ..................................................... 158
Muhammad Nazir, Anwar. M. Mirza

Energy Harvesting Framework for Sustainable Mobile Sensor Networks .......... 161
Seong-Woo Kim, Chulho Won, Jong Min Lee, Soon-Kak Kwon, Yoo Hyun Park

An Encryption Mechanism for Secure Sharing about Data Resources in Extended Virtual Machine System ................................................................. 164
Yunfa Li, Jian Wan, Rong Ouyang, Wei Zhang, Wangqing Li

Non-isomorphic Associative Memory ................................................................ 167
The Duy Bui

D-skyline and T-skyline Methods for Similarity Search Query in Streaming Environment ......................................................................................... 170
Ling Wang, Tie Hua Zhou, Kyung Ah Kim, Eun Jong Cha, and Keun Ho Ryu

Methodology of Dynamic Load Balancing Considering Stability of Naval Ship Combat System ............................................................................ 172
Bup-Ki Min, Seunghak Kuk, Hyeon Soo Kim, Chumsu Kim

A Study on Data Communicating Method of Container Tracking System for Global SCM ......................................................................................... 175
Joong Jo Shin, Hyung Rim Choi, Kang Bae Lee, Jung Rok Son, Young Sik Moon, Jin Wook Lee, Hee Mok Son

Multiple Sensor Data Fusion-based Context Inference for Predicting cause of Landslide Protection Wall Deformation ............................................... 178
Dong-hyok Suh, Jeonghwa Song, Kunsoo Oh

A fast iterative learning strategy for Bi-directional Associative Memory .......... 182
Hoa Thi Nong and The Duy Bui

MAVCM: Mobile Application Version Control Management ........................... 185
Haeng-Kon Kim
A Novel Public Key Cryptosystem Based on Ergodic Matrices over GF (2) .......................... 197
Zhengjun Jing, Guoping Jiang, Chunsheng Gu

Study on Mixed Prediction Model of Neural Network for Wire Ice-covering ....................... 200
Li MA, Xuelian LI, and Jin Wang

A study on method to analyze application on bada without source code ............................ 203
Hanjae Jeong, Jaesung Yoo and Dongho Won

Challenges and issues facing Smart Signage ........................................................................ 206
Yongik Yoon and Hangsub Kim

A Situation-based Storyline Generation System ................................................................. 210
Wonil Kim, Yeongjoon Kim, and Chuleui Hong

The Design of a Ultra-Low Power RF Wakeup Sensor for Wireless Sensor Networks ........ 213
YongSoo Bae, Sang Hoon Lee, Byung Joon Park, and Lynn Choi

Efficient Frequent Pattern Mining Based on a Condensed Tree Structure ....................... 216
Byung Joon Park, Sang Young Kim, and Lynn Choi

Document Clustering Using Term Weights and Class Label Terms Based on Semantic Features ......................................................................................................................... 220
Sun Park and Seong Ro Lee

An improved image registration and bias field correction coupled method for Brain MR image ................................................................................................................................. 223
Yunjie Chen, Jin Wang, Lin Fang, Jianwei Zhang, and Yuhui Zheng

Analysis for Optimal Degree of Replication .................................................................... 226
Jai-Hoon Kim, Kangseok Kim, and Geoffrey Fox

Applying the Combination Forecasting Model to Estimate the Number of Visitors in National Scenic Area: Evidence from Taiwan ..................................................... 230
Wan Yu Liu and Chun-Cheng Lin
Performance Evaluations of Multimedia Services over Ricean Fading Channel-based MANETs
Muhammad Khalil Afzal, Byung-Seo Kim, and Sung Won Kim

A Novel Image Zooming Scheme for Indexed Color Images
Yu-Chen Hu, Bing-Hwang Su, Wu-Lin Chen, and Wan-Yu Lu

A Power-aware Routing Approach for Ubiquitous Sensor Networks
Jin Wang, Ho-Chan Kim, and Jeong-Uk Kim

Shadow Removal from Videos Using Intensity Based K-Mean Clustering Algorithm
Anuva Chowdhury and Ui-Pil Chong

MDV Prediction for STAP Radar
Jinyong Lee, Youngseh Kim, Kanghoon Kim and Younglok Kim

Dynamic Power-Saving Model for Cloud Computing System
Che-Lun Hung, Yu-Chen Hu, and Kuan-Ching Li

Efficient Load Balancing Algorithm for Cloud Computing Network
Che-Lun Hung, Hsiao-hsi Wang, and Yu-Chen Hu

Side Information Refinement and Update for Transform domain Distributed Video Coding
Sangwoo Lee, Sang Ju Park

A Distributed Cross-Layer Latency Minimization Protocol for Wireless Sensor Networks
Chun-Chi Lo, Yu-Chen Hu, Jun-Chou Chuang, and Shu-Huan Hsu

SciPDFindexer: Distributed Information Retrieval system using MapReduce
Aziz Murtazaev, Sanggil Kang, Sangyoon Oh

A Tracking and Forecasting method of Satellite Images
Cui Mengmeng, Huang Yong, Xue Shengjun, and Wang Jin
Quantitative Analysis of Meteorological Disasters and Its Impact on National Economy ................................................................. 267
Chen Yunfeng, Li Lianshui, Cui Mengmeng, and Wang Jin

An Adaptive Load Balancing Management for Distributed Virtual Environment Systems ........................................................................ 271
Yuanxing Yao and Tae-Hyung Kim

Secure high-precision face recognition based on immune computation .......... 274
Tao Gong

A Study on System Development Process based on Embedded System .......... 277
Shin-Hyeong Choi and Hyoung-Keun Park

Robust IPSec Key Recovery Solution for IKEv2 under Mobile and Wireless Environment ............................................................................. 280
Yunjung Lee, Jungwon Cho, Keun-Wang Lee

A Coverage Area Maximizing Algorithm for Deadline Situations ............... 283
Heung Seok Jeon

Concretization of UML Models based on Model Transformation for Windows Phone Application ................................................................. 288
Hyun Seung Son, Woo Yeol Kim, Robert Youngchul Kim

Analysis of Temperature Track Monitoring Processes .................................. 292
Youn-Boo Kook, Jung-Sik Kim, Thom J. Hodgson

A Hybrid Verification System using Speech and Video .................................. 296
Taewoong Choi, Soonhyob Kim, and Soonhyob Kim

Provisioning Software Execution Platform on Cloud for Social Media Cloud Applications ................................................................. 299
In-Yong Jung and Chang-Sung Jeong

Shear Skew Warp Volume Sketch on Cloud Collaboration .......................... 302
Kiyoun Choi, Sungup Jo, Ki-Hyun Kim, and Chang-Sung Jeong
A Method for Providing Remote Access Functions and Home Media Sharing Services in Cloud Environment ................................................................. 305
Cui Yun, Myoungjin Kim, and Hanku Lee

Performance Evaluation of a Hadoop-based Distributed Video Transcoding System for Mobile Media Service .......................................................... 308
Myoungjin Kim, Yun Cui, Hyeokju Lee, and Hanku Lee

An Analysis Model of Context information for personalized cloud service configuration based on Hybrid MLP ............................................................. 311
Hyogun Yoon and Hanku Lee

Hit movie prediction scheme in social network environments ....................... 314
Hong-gu Choi, Yoon-Sik Tak, Daehoon Kim, and Eenjun Hwang

Object Tracking using Mean-shift Embedded Active Contours ..................... 317
Kyungtae Kim, Jae Sik Chang, Hangjoon Kim, Han ku Lee, and Eun Yi Kim

Ubiquitous Software Mobility on Cloud Computing Environment .................. 323
Dong-Bum Seo, In-Yong Jung, and Chang-Sung Jeong

A new approach to protein secondary structure prediction based on Cluster Merging ................................................................. 326
Lu Zhao, Ngyuen-Quang Phuoc, and Sung-Ryul Kim

Improving MapReduce Performance using Block Device Reconfiguration in Virtualized Cloud ................................................................. 330
Kwonyong Lee, Sungyong Park, and Hyukjun Lee

Efficient Type-aware Web Service Composition Using Formal Verication Techniques ................................................................. 333
Hyunyoung Kil, Insik Shin, and Wonhong Nam

Collaborative Experiment for Bio-Molecular Modeling based on Heterogeneous Environments ................................................................. 337
Lyda Kim, Jun Lee, Lin-Woo Kang, Jee-In Kim, and Seungchel Koun
Implementation of Cloud Computing Environment for Processing of Airborne Laser Scanning Data ................................................................. 340
Jaesun Park, Muwook Pyeon, Yangdam Eo, Hanku Lee, and Hyeokju Lee

A Design of a VOD DB ...................................................................................... 343
Jaegeol Yim, Gyeyoung Lee, and Thanh Le

A Reference Model for Representing Real Characters into the 3D Virtual Space....................................................................................................... 346
JiSeong Jeong, JinA Park, SinAe Kwon, Chan Park, Nakhoon Baek, and KwanHee Yoo

Efficient Retransmission Mechanism for Video Streaming over Multi-hop Wireless Content-Centric Networks ..................................................... 349
Longzhe Han, SeungSeok Kang and Hoh Peter In

Analysis of DNA Sequence Alignment Using Fuzzy Membership Degree ...... 352
KwangBaek Kim, DongHui Yu, and Soyoung Hwang

Extraction of Gastric Submucosal Tumor from Endoscopic Ultrasound Image ....................................................................................................... 355
KwangBaek Kim

A Virtual Driving Simulator for Eco-driving Training ....................................... 358
Seungyoel Kim and YoonSang Kim

A forensic based IITN(Improved IP Traceback against Network attacks) protocol ................................................................. 361
EunHee Jeong, ByungKwan Lee, and Ina Jung

Beacon Signaling Framework of IEEE 802.15.6 WBAN for WUSB MMC Scheduling ............................................................................................. 365
Kyeong Hur, Won-Sung Sohn, YangSun Lee

Low-power Hibernation Technique for WUSB over IEEE 802.15.6 Hierarchical MAC ..................................................................................... 368
Kyeong Hur, Won-Sung Sohn, Jae-Kyung Kim, YangSun Lee
Note Visualization for Digital Textbooks in Touch-based Device ..................... 371
Jae-Kyung Kim, Won-Sung Sohn, YangSun Lee

Data Encryption and Authentication Mechanism based on Block Cipher Mode
For Underwater Acoustic Sensor Networks .............................................................. 374
YungPyo Kim, JungWoo An, SooHyun Park, Okyeon Yi, JuHum Kwon

Investigating Page Sizes in NAND Flash Memory .............................................. 377
Gyu Sang Choi and Mankyu Sung

Development of the Digital Integrated Public Address System using
Remote Control ........................................................................................................ 380
Jung-Sook Kim

Programming NetOpen Networking Services with SDN-enabled Resources .... 383
Namgon Kim and JongWon Kim

Efficient Shape Classification Using Adaptive Skeleton Pruning ...................... 386
Cong Lin, Chi-Man Pun and Hong-Min Zhu

Large-scale RFID data processing ...................................................................... 390
Young-Sik Noh, Yung-Cheol Byun

Analysis of Automatic Strangle Trade on Expansive Symbols of Korean
Option Market ........................................................................................................ 393
Young-Hoon Kim, YoonSang Kim