Contents

Part I

QoS-aware Mapping and Scheduling for Integrated CWDM-PON and WiMAX Network 3
Siti H. Mohammad, Nadiatulhuda Zulkifli and Sevia M. Idrus

Resource Management Scheme Based on Position and Direction for Handoff Control in Micro/Pico-Cellular Networks 11
Dong Chun Lee, Kuinam J. Kim and Jong Chan Lee

A Pilot Study of Embedding Android Apps with Arduino for Monitoring Rehabilitation Process 21
Safyzan Salim, Wan Nurshazwani Wan Zakaria and M. Mahadi Abdul Jamil

A Security Protocol based-on Mutual Authentication Application toward Wireless Sensor Network 27
Ndibanje Bruce, YoungJin Kang, Hyeong Rag Kim, SuHyun Park and Hoon-Jae Lee

A Noninvasive Sensor System for Discriminating Mobility Pattern on a Bed 35
Seung Ho Cho and Seokhyang Cho

A Fault-Tolerant Multi-Path Multi-Channel Routing Protocol for Cognitive Radio Ad Hoc Networks 43
Zamree Che-aron, Aisha Hassan Abdalla, Khaizuran Abdullah, Wan Haslina Hassan and Md. Arafatur Rahman

Bibliografische Informationen
http://d-nb.info/1066473242

digitalisiert durch DEUTSCHE NATIONAL BIBLIOTHEK

Study of Sound and Haptic Feedback in Smart Wearable Devices to Improve Driving Performance of Elders 51
Chularas Natpratan and Nagul Cooharojananone

Indoor WIFI localization on embedded systems 59
Anya Apavatjrut and Ekkawit Boonyasiwapong

Bacterial Foraging-based Power Allocation for Cooperative Wireless Sensor Networks 67
Mohammad Abdul Azim, Zeyar Aung and Mario E. Rivero-Angeles

Part II

Maintaining a Trajectory Data Warehouse Under Schema Changes with the Mobile Agent View Adaptation Technique 79
Wided Oueslati and Jalel Akaichi

Traffic Analysis in Concurrent Multi-Channel Viewing on P2PTV 85
Koki Mizutani, Takumi Miyoshi and Olivier Fourmaux

Evaluation Method of MANET over Next Generation Optical Wireless Access Network 93
M.A. Wong, N. Zulkifli, S.M. Idrus and M. Elshaikh

A Feedback Mechanism Based on Randomly Suppressed Timer for ForCES Protocol 103
Lijie Cen, Chuanhuang Li and Weiming Wang

Operational Analysis of Interarrival Rate-based Queuing Management Mechanism for High-speed Networks 111
Mohammed M. Kadhum and Selvakumar Manickam

E-Government project enquiry framework for a continuous improvement process, status in Malaysia and Comoros 125
Said Abdou Mfoihaya and Mokhtar Mohd Yusof

Objective Non-intrusive Conversational VoIP Quality Prediction using Data mining methods 135
Sake Valaisathien and Vajirasak Vanijja

A Hybrid Incentive-based Peer Selection Scheme for Unstructured Peer-to-Peer Media Streaming Systems 143
Victor Romero II and Cedric Angelo Festin

A Transmission Method to Improve the Quality of Multimedia in Hybrid Broadcast/Mobile Networks 151
Hyung-Yoon Seo, Byungjun Bae and Jong-Deok Kim

A Failureless Pipelined Aho-Corasick Algorithm for FPGA-based Parallel String Matching Engine 157
Hyun Jin Kim

Revised P2P Data Sharing Scheme over Distributed Cloud Networks 165
Wonhyuk Lee, TaeYeon Kim, Seungae Kang and HyunCheol Kim

LQDV Routing Protocol Implementation on Arduino Platform and Xbee module 173
Ho Sy Khanh and Myung Kyun Kim

A Virtualization and Management Architecture of Micro-Datacenter 181
Byungyeon Park, Wonhyuk Lee, TaeYeon Kim and HyunCheol Kim

Multi-disjoint Routes Mechanism for Source Routing in Mobile Ad-hoc Networks 189
Baidaa Hamza Khudayer, Mohammed M. Kadhum and Wan Tat Chee

Passive Network Monitoring using REAMS 205
Amir Azodi, David Jaeger, Feng Cheng and Christoph Meinel

Low Latency Video Transmission Device 217
Chanho Park and Hagyoung Kim

Part III

Comparative Investigation of Medical Contents using Desktop and Tabletop Technologies 225
Tahir Mustafa Madni, Yunus Nayan, Suziah Sulaiman and Muhammad Tahir

Dynamic-Time-Warping Analysis of Feature-Vector Reliability for Cognitive Stimulation Therapy Assessment 235
Tuan D. Pham

An Algorithm for Rock Pore Image Segmentation. 243
Zhang Jiqun, Hu Chungjin, Liu Xin, He Dongmei and Li Hua

Action Recognition by Extracting Pyramidal Motion Features from Skeleton Sequences 251
Guoliang LU, Yiqi ZHOU, Xueyong LI and Chen LV

P-PCC: Parallel Pearson Correlation Condition for Robust Cosmetic Makeup Face Recognitions 259
Kanokmon Rujirakul and Chakchai So-In

Flight Simulator for Serious Gaming 267
Aruni Nisansala, Maheshya Weerasinghe, G.K.A. Dias
Damitha Sandaruwan, Chamath Keppitiyagama, Nihal Kodikara
Chamal Perera and Prabhath Samarasinghe

Potential Z-Fighting Conflict Detection System in 3D Level Design Tools 279
Pisal Setthawong

Efficient Motion Estimation Algorithms for HEVC/H.265 Video Coding 287
Edward Jaja, Zaid Omar, Ab Al-Hadi Ab Rahman
and Muhammad Mun'im Zabidi

A Synthesis of 2D Mammographic Image Using Super- Resolution Technique: A Phantom Study. 295
Surangkana Kantharak, Thanarat H. Chalidabhongse
and Jenjeera Prueksadee

Using complex events to represent domain concepts in graphs. 303
Riley T Perry, Cat Kutay and Fethi Rabhi

Unequal Loss Protection Mechanism for Wi-Fi based Broadcasting system using a Video Quality Prediction Model 313
Dong Hyun Kim, Hyung-Yoon Seo, Byungjun Bae and Jong-Deok Kim

An Approximate Matching Preprocessing for Efficient Phase-Only Correlation-Based Image Retrieval. 319
Honghang Wang and Masayoshi Aritsugi

Pixel Art Color Palette Synthesis 327
Ming-Rong Huang and Ruen-Rone Lee

Introducing a New Radiation Detection Device Calibration Method and Estimating 3D Distance to Radiation Sources 335
Pathum Rathnayaka, Seung-Hae Baek and Soon-Yong Park

Integrating Feature Descriptors to Scanpath-based Decoding of Deformed Barcode Images 343
Poonna Yospanya and Yachai Limpiyakorn

Detecting and extracting text in video via sparse representation based classification method 351
Bo Sun, Yang Wu, Feng Xu, Yongkang Xiao, Jun He and Chen Chao

Part IV

A Cost Model for Client-Side CaaS 361
Chaturong Sriwiroj and Thepparit Banditwattanawong

A Reliability Analysis of Cascaded TMR Systems 369
Hyun Joo Yi, Tae-Sun Chung and Sungsoo Kim

Availability Analysis for A Data Center Cooling System with (n,k)-way CRACs 377
Sohyun Koo, Tae-Sun Chung and Sungsoo Kim

A Recovery Model for Improving Reliability of PCM WL-Reviver System 385
Taehoon Roh, Tae-Sun Chung and Sungsoo Kim

Real-time Sitting Posture Monitoring System for Functional Scoliosis Patients 391
Ji-Yong Jung, Soo-Kyung Bok, Bong-Ok Kim, Yonggwan Won and Jung-Ja Kim

Part V

Decreasing Size of Parameter for Computing Greatest Common Divisor to Speed up New Factorization Algorithm Based on Pollard Rho 399
Kritsanapong Somsuk

Network Security Situation Assessment: A Review and Discussion 407
Yu-Beng Leau, Selvakumar Manickam and Yung-Wey Chong

Protecting Binary Files from Stack-Based Buffer Overflow 415
Sahel Alouneh, Heba Bsoul and Mazen Kharbutli

Meet-in-the-middle Attack with Splice-and-Cut Technique on the 19-round Variant of Block Cipher HIGHT 423
Yasutaka Igarashi, Ryutaro Sueyoshi, Toshinobu Kaneko and Takayasu Fuchida

Nonintrusive SSL/TLS Proxy with JSON-Based Policy 431
Suhairi Mohd Jawi, Fakariah Hani Mohd Ali and Nurul Huda Nik Zulkipli

Secure Problem Solving by Encrypted Computing 439
Hiroshi Yamaguchi, Phillip C.-Y. Sheu and Shigeo Tsujii

Anomaly Detection from Log Files Using Data Mining Techniques ... 449
Jakub Breier and Jana Branišová

Improved Remote User Trust Evaluation Scheme to apply to Social Network Services 459
Youngwoong Kim, Younsung Choi and Dongho Won

Threat assessment model for mobile malware 467
Thanh v Do, Fredrik B. Lyche, Jørgen H. Lytskjold and Do van Thuan

Performance Evaluation of System Resources Utilization with Sandboxing Applications 475
Tarek Helmy, Ismail Keshta and Abdallah Rashed

Fault Attacks by using Voltage and Temperature Variations: An Investigation and Analysis of Experimental Environment 483
Young Sil Lee, Non Thiranant, HyeongRag Kim, JungBok Jo and HoonJae Lee

Pseudoinverse Matrix over Finite Field and Its Applications 491
Dang Hai Van and Nguyen Dinh Thuc

Multi-Agent based Framework for Time-correlated Alert Detection of Volume Attacks 499
Abimbola Olabelurin, Georgios Kallos, Suresh Veluru and Muttukrishnan Rajarajan

Side Channel Attacks on Cryptographic Module: EM and PA Attacks Accuracy Analysis 509
HyunHo Kim, Ndibanje Bruce, Hoon-Jae Lee, YongJe Choi and Dooho Choi

Exploring Bad Behaviors from Email Logs 517
Supachai Kanchanapokin and Sirapat Boonkrong

Using PKI to Provide Credential Delegation in non Web-based Federations 525
Daniel Kouřil, Marcel Poul and Michal Procházka

Modeling and Simulation of Identification Protocol for Wireless Medical Devices in Healthcare System Communication 533
Hyun Ho Kim, Ndibanje Bruce, SuHyun Park, JungBok Jo and Hoon-Jae Lee

A Method for Web Security Context Patterns Development from User Interface Guidelines Based on Structural and Textual Analysis 541
Pattariya Singpant and Nakornthip Prompoon

A Comparative Study of Combination with Different LSB Techniques in MP3 Steganography 551
Mohammed Salem Atoum

Review of Digital Forensic Investigation Frameworks 561
Ritu Agarwal and Suvarna Kothari

Part VI

Knowledge Discovery in Dynamic Data Using Neural Networks 575
Eva Volna, Martin Kotyrba and Michal Janosek

Data Mining for Industrial System Identification: A Turning Process 583
Karin Kandananond

Investigating the Effectiveness of E-mail Spam Image Data for Phone Spam Image Detection Using Scale Invariant Feature Transform Image Descriptor 591
So Yeon Kim, Yenewondim Biadgie and Kyung-Ah Sohn

Features extraction for classification of focal and non-focal EEG signals 599
Khushnandan Rai, Varun Bajaj and Anil Kumar

Relations on Intuitionistic Fuzzy Soft Multi Sets 607
Anjan Mukherjee and Ajoy Kanti Das

Towards Automatically Retrieving Discoveries and Generating Ontologies 615
Kenneth Cosh

Improving process models discovery using AXOR clustering algorithm 623
Hanane Ariouat, Kamel Barkaoui and Jacky Akoka

Simple Approaches of Sentiment Analysis via Ensemble Learning 631
Tawunrat Chalothom and Jeremy Ellman

Effective Trajectory Similarity Measure for Moving Objects in Real-World Scene 641
Moonsoo Ra, Chiawei Lim, Yong Ho Song, Jechang Jung and Whoi-Yul Kim

A Prediction of Engineering Students Performance from Core Engineering Course Using Classification 649
Nachirat Rachburee, Wattana Punlumjeak, Sitti Rugtanom, Deachrut Jaithavil and Manoch Pracha

Evolutionary Circular-ELM for the Reduced-Reference Assessment of Perceived Image Quality 657
Sarutte Atsawaraungsuk and Punyaphol Horata

Enhanced Web Page Cleaning for Constructing Social Media Text Corpora 665
Melanie Neunerdt, Eva Reimer, Michael Reyer and Rudolf Mathar

Finding Knee Solutions in Multi-Objective Optimization Using Extended Angle Dominance Approach 673
Sufian Sudeng and Naruemon Wattanapongsakorn

Affective Learning Analysis of Children in a Card Sorting Game 681
Marini Othman, Abdul Wahab, Abdul Qayoom, Mohd Syarqawy Hamzah and Muhamad Sadry Abu Seman

Application of Mean and Median Frequency Methods for Identification of Human Joint Angles Using EMG Signal 689
Sirinee Thongpanja, Angkoon Phinyomark, Chusak Limsakul and Pomchai Phukpattaranont

A Study of Big Data Solution Using Hadoop to Process Connected Vehicle's Diagnostics Data 697
Lionel Nkenyereye and Jong-Wook Jang

Wiki SaGa: An Interactive Timeline to Visualize Historical Documents 705
Daniel Yong Wen Tan, Bali Ranaivo-Malançon and Narayanan Kulathuramaiyer

Discovering genomic associations on cancer datasets by applying sparse regression methods 713
Reddy Rani Vangimalla and Kyung-Ah Sohn

The Adaptive Dynamic Clustering Neuro-Fuzzy System for Classification 721
Phichit Napook and Narissara Eiamkanitchat

A Hybrid Approach of Neural Network and Level-2 Fuzzy set 729
Jirawat Teyakome and Narissara Eiamkanitchat

Developing Term Weighting Scheme Based on Term Occurrence Ratio for Sentiment Analysis 737
Nivet Chirawichitchai

A Comparison of Artificial Neural Network and Regression Model for Predicting the Rice Production in Lower Northern Thailand 745
Anamai Na-udom and Jaratsri Rungrattanaubol

Study on Local Path Planning for Collision Avoidance in Vehicle-to-Vehicle Communication Environment 753
Gyoungeun Kim and Byeongwoo Kim

Vehicle Position Estimation using Tire Model 761
Jaewoo Yoon and Byeongwoo Kim

I know when you are happy - Emotion Detection 769
Abhishek Singh Kilak and Namita Mittal

Interconnection Learning between Economic Indicators in Indonesia Optimized by Genetic Algorithm 777
S Saadah and G.S. Wulandari

Classification Prediction of the Foot Disease Pattern Using Decision Tree Model 785
Jung-Kyu Choi, Yonggwan Won and Jung-Ja Kim

Non-Preference Based Pruning Algorithm for Multi-Objective Redundancy Allocation Problem 793
Tipwimol Sooktip, Naruemon Wattanapongsakorn and Sanan Srakaew

A Combined AdaBoost and NEWFM Technique for Medical Data Classification 801
Khaled A. Abuhasel, Abdullah M. Iliyasu and Chastine Fatichah

On sentence length distribution as an authorship attribute 811
Miro Lehtonen

Learning models for activity recognition in smart homes 819
Labiba Gillani Fahad, Arshad Ali and Muttukrishnan Rajarajan

Tackling Class Imbalance Problem in Binary Classification using Augmented Neighborhood Cleaning Algorithm 827
Nadyah Obaid Al Abdouli, Zeyar Aung, Wei Lee Woon and Davor Svetinovic

Part VII

Software Effective Risk Management: An Evaluation of Risk Management Process Models and Standards 837
Jafreezal Jaafar, Uzair Iqbal Janjua and Fong Woon Lai

Validating Reusability of Software Projects using Object-Oriented Design Metrics 845
Zhamri Che Ani, Shuib Basri and Aliza Sarlan

Plasticine Scrum: An Alternative Solution for Simulating Scrum Software Development 851
Sakgasit Ramingwong and Lachana Ramingwong

Understanding of Project Manager Competency in Agile Software Development Project: The Taxonomy 859
Kamalrufadillah Sutling, Zulkefli Mansor, Setyawan Widyarto, Sukumar Lecthmunan and Noor Habibah Arshad

The Design and Implementation of Around-View System using Android-based Image Processing 869
Gyu-Hyun Kim and Jong-Wook Jang

Identification of Opportunities for Move Method Refactoring Using Decision Theory 877
Siriwan Boonkwan and Pornsiri Muenchaisri

Requirements Engineering for Cloud Computing in University Using i*(iStar) Hierarchy Method 885
Sandfreni, Nabila Rizky Oktadimi and Kridanto Surendro

Power Consumption Profiling Method based on Android Application Usage 891
Hiroki Furusho, Kenji Hisazumi, Takeshi Kamiyama, Hiroshi Inamura, Tsuneo Nakanishi and Akira Fukuda

Evergreen Software Preservation: The Conceptual Framework of Anti-Ageing Model 899
Jamaiah H. Yahaya, Aziz Deraman and Zuriani Hayati Abdullah

A Framework Analysis for Distributed Interactive Multimedia System on Location-based Service 907
Shan Liu and Jianping Chai

An Empirical Validation of Coupling and Cohesion Metrics as Testability Indicators 915
Amos Orenyi Bajeh, Shuib Basri and Low Tang Jung

Software Defect Prediction in Imbalanced Data Sets Using Unbiased Support Vector Machine 923
Teerawit Choeikiwong and Peerapon Vateekul

Evaluation of Separated Concerns in Web-based Delivery of User Interfaces 933
Tomas Cerny, Lubos Matl, Karel Cemus and Michael J. Donahoo

Separating out Platform-independent Particles of User Interfaces 941
Tomas Cerny and Michael J. Donahoo

Implementing Personal Software Process in Undergraduate Course to Improve Model-View-Controller Software Construction 949
Wacharapong Nachiengmai and Sakgasit Ramingwong

Part VIII

Personalized Care Recommendation Approach for Diabetes patients Using Ontology and SWRL 959
Benjamas Hempo, Ngamnij Arch-int, Somjit Arch-int and Cherdpan Pattarapongsin

An Experimental Study for Neighbor Selection in Collaborative Filtering 967
Soojung Lee

Transforming e-Procurement Platforms for PEPPOL and WCAG 2.0 Compliance 973
José Martins, João Barroso, Ramiro Gonçalves, André Sousa, Miguel Bacelar and Hugo Paredes

Analyzing Developer Behavior and Community Structure in Software Crowdsourcing 981
Hui Zhang, Yuchuan Wu and Wenjun Wu

A Semantic Similarity Assessment Tool for Computer Science Subjects Using Extended Wu & Palmer's Algorithm and Ontology ... 989
Chayan Nuntawong, Chakkrit Snae Namahoot and Michael Brückner

Comparison of Architecture-Centric Model-Driven Web Engineering and Abstract Behavioural Specification in Constructing Software Product Line for Web Applications 997
Daya Adianto, Maya Retno Ayu Setyautami and Salman El Farisi

Prediction of Query Satisfaction Based on CQA-Oriented Browsing Behaviors 1005
Junxia Guo, Hao Han, Cheng Gao, Takashi Nakayama and Keizo Oyama

The Competition-based Information Propagation in Online Social Networks 1013
Liyuan Sun, Yadong Zhou and Xiaohong Guan

e-Learning Recommender System for Teachers using Opinion Mining 1021
Anand Shanker Tewari, Anita Saroj and Asim Gopal Barman

Part IX IWICT

Evaluating Heuristic Optimization, Bio-Inspired and Graph-Theoretic Algorithms for the Generation of Fault-Tolerant Graphs with Minimal Costs 1033
Matthias Becker, Markus Kromker and Helena Szczerbicka

Part X ICWCIA

Real-time Night Visibility Enhancement Algorithm Using the Similarity of Inverted Night Image and Fog Image 1045
Jae-Won Lee, Bae-Ho Lee, Yongkwan Won, Cheol-Hong Kim and Sung-Hoon Hong

A Service Protection mechanism Using VPN GW Hiding Techniques 1053
PyungKoo Park, HoYong Ryu, GyungTae Hong, SeongMin Yoo, Jaehyung Park and JaeCheol Ryou

Networking Service Availability Analysis of 2N Redundancy Model with Non-stop Forwarding 1063
Dong-Hyun Kim, Jae-Chan Shim, Ho-Yong Ryu, Jaehyung Park and Yutae Lee

Property Analysis of Classifiers for Sleep Snoring Detection 1071
Tan Loc Nguyen, Young Y. Lee, Su-il Choi and Yonggwan Won

An Innovative Detection Method Integrating Hybrid Sensors for Motorized Wheelchairs 1079
Sanghyun Park, Hyunyoung Kim, Jinsul Kim, Taeksoo Ji and Myoung Jin Lee

Part XI IWSATA

Road Weather Information transmission method for digital multimedia broadcasting 1087
SangWoon Lee

Color Overlapping Method of Projection System on LEDs 1095
Yongseok Chi, Youngseop Kim, Je-Ho Park, Kyoungro Yoon, Cheong-Ghil Kim and Yong-Hwan Lee

A System Design for Audio Level Measurement based on ITU-R BS.1770-3 1101
Sang Woon Lee, Hyun Woo Lee and Cheong Ghil Kim

A Prototype Implementation of Contents Sharing System on Networked Heterogeneous Devices 1107
Cheong Ghil Kim and Dae Seung Park

Erratum to: Finding Knee Solutions in Multi-Objective Optimization Using Extended Angle Dominance Approach E1
Sufian Sudeng, Naruemon Wattanapongsakorn and Sanan Srakaew