

2013 International Joint Conference on Awareness Science and Technology and Ubi-Media Computing

(iCAST-UMEDIA 2013)

**Aizuwakamatsu, Japan
2-4 November 2013**



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iCAST 2013 Technical Program

-- Can we realize awareness via ubi-media?

iCast Main Track 1 (IM – 1): Nov.2, 13:00-14:40, M2.

Machine Learning & Knowledge Management

Chairs: Prof. Yong Liu (University of Aizu)

1. *Improved Stability Criteria of ADP Control for Efficient Context-Aware Decision Support Systems*
Yury Sokolov, Robert Kozma 41
2. *Proactive Model to Predict and Notify the Risk of CRD Problem in Broiler Farms*
Suthathip Maneewongvatana, Songrit Maneewongvatana 47
3. *A Framework of Autonomous Knowledge Transfer for Robot Navigation Task*
Weiwei Yu, Shen Wang, Kurosh Madani, Huashan Feng 52
4. *Make Decision Boundary Smoother by Transition Learning*
Yong Liu, Qiangfu Zhao, Neil Y. Yen 58

iCAST Main Track 2 (IM-2): Nov.2, 14:50-16:30, M2.

Awareness of Pattern and Image (I)

Chairs: Prof. Yuichi Yaguchi (University of Aizu)

1. *Image Segmentation by Probability Density Awareness with Genetic Algorithm*
Chih-Yu Hsu, Hui-Ching Wang, Wan-Ting Hung N/A
2. *Bayesian Network for Algorithm Selection: Real-World Hierarchy for Nodes Reduction*
Martin Lukac, Michitaka Kameyama 69
3. *Analysis of EEG Signal to Investigate the Influence of Intoxication in Perception Delay*
Daigo Kikuchi, Goutam Chakraborty, Jun Sawamoto, Hikaru Yokoha 75
4. *Construction of Intelligent Intrusion Detection System Based on KINECT*
Wei Zhang, Goutam Chakraborty 81

iCAST Main Track 3 (IM-3): Nov.3, 10:50-12:30, M2.

Awareness of Pattern and Image (II)

Chairs: Prof. G. Chakraborty (Iwate P. University)

1. *Real-time Mobility Aware Shoe - Analyzing Dynamics of Pressure Variation at Important Foot Points*
Tetsuhiro Dednou, Goutam Chakraborty

2. *Recognition of Character Drawn on Screen With Laser Pointer*
Jungpil Shin, Shingo Watanabe
3. *An Efficient Implementation of Normalized Cross-Correlation Image Matching based on Pyramid*
Yasser Fouda, Khaled Ragab
4. *Multimodal Soft Biometric Verification by Hand Shape and Handwriting Motion in the Air*
Akiji Takeuchi, Yusuke Manabe, Kenji Sugawara

iCAST Main Track 4 (IM-4): Nov.3, 13:30-15:10, M2.

Semantics & Knowledge

Chairs: Prof. Tetsuo Kinoshita (Tohoku University)

1. *A Knowledge-based Autonomous Service Management System in Emergency Situations*
Johan Sveholm, Khamisi Kalegele, Yusuke Tanimura, Kazuto Sasai, Gen Kitagata, Tetsuo Kinoshita
2. *Customizable Active Situation Awareness Framework Based on Meta-Process in Ontology*
Ryohei Komiya, Incheon Paik, Keunho Ryu
3. *Next Stop Recommender*
Ben Ripley, Dirksen Liu, Maiga Chang, Dr. Kinshuk
4. *Awareness Computing to Classify Thyroid Hormone Disturbances Using Electrocardiogram*
Anthony Kaveh, Wayne Chung

iCAST Main Track 5 (IM-5): Nov.3, 15:20-17:00, M2.

Location & Position Awareness & Fundamentals

Chairs: Prof. Cheng-Hsiung Hsieh (Chaoyang University)

1. *Pathway Prediction Using Similar Users and the N-gram Model*
Kanta Kawase, Ruck Thawonmas
2. *A Modified Particle Swarm Optimization Algorithm For Distributed Search and Collective Cleanup*
Jun Li, Zhutian Chen, Yu Liu, Yi Cai, Huaqing Min, Qing Li
3. *Robot-Based Deployment Mechanism for Wireless Sensor Networks in Unknown Region*
Ying-Hong Wang, Chih-Hsiao Tsai, You-Hua Wu
4. *Neurophysiological Evidence of the Cognitive Cycle and the Emergence of Awareness*
Joshua Davis, Robert Kozma, Walter Freeman

iCAST Main Track 6 (IM-6): Nov.4, 13:00-14:40, M2.

Trust and Ubiquitous Computing

Chairs: Incheon Paik (University of Aizu)

1. *Steganography Based on Image Morphing*
Qiangfu Zhao, Toshiyasu L. Kunii

2. *The Psychological Aspects and Implementation of Adaptive Games for Mobile Application*
Widodo Budiharto, Ro'fah Nur Rachmawati, Michael Yoseph Ricky, Pingkan Chyntia B. Rumondor
3. *Design of Large Scale Structural Health Monitoring System for Long-Span Bridges Based on Wireless Sensor Network*
Eko Setijadi, Suwadi, Slamet BP, Muntaquo A.A., In'am, Evy Nur A. Priyo Suprobo, Fainum, Arie Febry F.

iCAST Main Track 7 (IM-7): Nov.4, 14:50-16:30, M2.

Sound and Signals in Awareness

Chairs: Prof. Shuxue Ding (University of Aizu)

1. *A New 5-Loudspeaker 3D Sound System with a Reverberation Reconstruction Method*
Keita Tanno, Akira Saji, Jie Huang
2. *Improve vertical sweet-spot of 3-D sound system by loudspeaker arrays*
Akira Saji, Keita Tanno, Jie Huang
3. *A Comparative Study of Gesture Recognition between RGB and HSV Colors Using Time-Space Continuous Dynamic Programming*
Keigo Amma, Yuichi Yaguchi, Yuki Niitsuma, Takashi Matsuzaki, Ryuichi Oka
4. *An Efficient Pressure-Aware Character Input Algorithm for Mobile Phones*
Masafumi Matsuhara, Miki Itoh, Goutam Chakraborty, Hiroshi Mabuchi,

iCAST Main Track 8 (IM-8): Nov.2, 13:00-14:40, M3.

Signal Processing for Awareness

Chairs: Prof. K. Markov (University of Aizu)

1. *Heterogeneous Information Saliency Features' Fusion Approach for Machine's Environment Sounds Based Awareness*
Jingyu Wang, Ke Zhang, Kurosh Madani, Christophe Sabourin
2. *Factored Language Modeling for Russian LVCSR*
Daria Vazhenina, Konstantin Markov,
3. *A Residue to Binary Converter for a Balanced Moduli set $\{2^{2n+1}-1, 2^{2n}, 2^{2n}-1\}$*
Edem Bankas, Alagbe Gbolagade

iCAST Main Track 9 (IM-9): Nov.2, 14:50-16:30, M3.

Data Mining in Awareness (I)

Chairs: Prof. V. Klyuev (University of Aizu)

1. *Calculating Word Similarity for Context Aware Web Service Clustering*
Hiroki Ohashi, Incheon Paik, Banage T. G. S. Kumara
2. *Web Service Filtering and Visualization with Context Aware Similarity to Bootstrap Clustering*
Banage T. G. S. Kumara, Incheon Paik, Hiroki Ohashi, Yuichi Yaguchi

3. *System Monitoring Models as Active Information Resources*
Khamisi Kalegele, Hideyuki Takahashi, Kazuto Sasai, Gen Kitagata, Tetsuo Kinoshita
4. *Spelling Out Opinions: Difficult Cases of Sentiment Analysis*
Ivan Khozyainov, Evgeny Pyshkin, Vitaly Klyuev

iCAST Main Track 10 (IM-10): Nov.3, 10:50-12:30, M3.

Data Mining in Awareness (II)

Chairs: Prof. Keunho Ryu (Chungbuk University)

1. *Awareness of manipulation in on-line review*
Ching-Yun Hsueh, Long-Sheng Chen, Qiangfu Zhao
2. *Associated Keyword Analysis for Temporal Data with Spatial Visualization*
Shunsuke Wada, Yuichi Yaguchi, Ryo Ogata, Yutaka Watanobe, Keitaro Naruse, Ryuichi Oka
3. *A Novel Clustering Method for Animal Trajectory Analysis using Wireless Sensor Network*
Quang Hiep Vu, Thi Hong Nhan Vu, Meijing Li, Keun Ho Ryu
4. *A Hybrid Recommender System based Non-common Items in Social Media*
Chi-Chih Yu, Toru Yamaguchi, Yasufumi Takama

iCAST Main Track 11 (IM-11): Nov.3, 13:30-15:10, M3.

Business and Healthcare Application

Chairs: Wuhui Chen (University of Aizu)

1. *Big Data Approach in an ICT Agriculture Project*
Dennis Ludena, Alireza Ahrary.
2. *Supporting System to Grasp Misunderstandings by Quiz in Large Class — Support for observation by walking*
Haruhiko Takase, Hiroharu Kawanaka, Shinji Tsuruoka
3. *Constructing Web-Scale Functional Map on Global Social Service Network for Workflow-as-a-Service*
Tetsuya Tashiro, Wuhui Chen, Incheon Paik
4. *Artificial Neural Network Integrated Heart Rate Variability with Detection System*
Chen-Shen Huang, Kong-Sheng Huang, Gwo-Jia Jong

iCAST Main Track 12 (IM-12): Nov.3, 15:20-17:00, M3.

Healthcare and Cloud Application

Chairs: Shoji Hirano (Shimane University)

1. *Computer Aided Silicon Padding Design For Burn Injury*
Mohamed Salleh, Memis Acar, Neils Burns
2. *Data Mining based Clinical Care Plan Construction*
Shusaku Tsumoto, Haruko Iwata, Shoji Hirano
3. *Hybrid Cloud Load Prediction Model for LMS Applications Based on Class Activity Patterns*
Songrit Maneewongvatana, Suthathip Maneewongvatana

4. *Autonomous feedback with Brain Entrainment*

Shu-Hui Tsai, Yue-Der Lin

Special Session Track (SS-1): Nov.2, 13:00-14:40, M4.

Awareness in Humans and Robots (I)

Chairs: Mitsuyuki Nakao (Tohoku University)

1. *Is Autonomy Working under Unconscious State of Sleep?*
Mitsuyuki Nakao, Akihiro Karashima, Norihiro Katayama
2. *Contribution of Visual Feedback to the Hippocampal Theta Activity in Mice*
Norihiro Katayama, Keita Hidaka, Akihiro Karashima, Mitsuyuki Nakao
3. *Brain-Computer Interface Based on Explicit and Implicit Mental Process*
Shin'ichiro Kanoh

Special Session Track (SS-2): Nov.2, 14:50-16:30, M4.

Awareness in Humans and Robots (II)

Chairs: Yasuji Sawada (Tohoku Institute of Technology)

1. *Complementarity between the Feedforward and Feedback Mechanisms is Necessary for Anticipatory Activity in Hand Tracking*
Fumihiko Ishida, Yasuji Sawada
2. *A Study of Anticipatory Non-Autonomous Systems*
Yoshikatsu Hayashi, Matthew C. Spencer, Slawomir J. Nasuto
3. *Regions of Interest in Observing Robot Hand Movement by a Cooperative Robot*
Toyomi Fujita, Claudio M. Privitera
4. *A Model Subjective System with Functions of Decision Making and Action Evaluation*
Yasuji Sawada

Special Session Track (SS-3): Nov.3, 10:50-12:30, M4.

Intuitive Human-System Interaction (I)

Chairs: Masao Yokota (Fukuoka Institute of Technology)

1. *Generating a Variety of Expressions from Visual Information and User-Designated Viewpoints*
Yasuhiro Noguchi, Makoto Kondo, Satoru Kogure, Tatsuhiro Konishi, Yukihiro Itoh, Akira Takagi, Hideki Asoh, Ichiro Kobayashi
2. *A Study of Data Reduction for Intuitive AR Interface*
Hideo Miyachi
3. *Measurement of Density and Granularity of Archeological Artifacts using Industrial Computed Tomography*
Akio Doi, Toru Kato, Hiroki Takahashi
4. *A Medical Imaging Diagnosis Supporting Method with Sound Effects*
Tsuneo Kagawa, Hiroaki Nishino, Shuichu Tanoue, Hiro Kiyosue, Hiromu Mori

Special Session Track (SS-4): Nov.3, 13:30-15:10, M4.

Intuitive Human-System Interaction (II)

Chairs: Kenji Araki (Hokkaido University)

1. *Modeling and Reshaping Handwritten Characters based on Dynamic Font Model*
Hirotsugu Matsukida, Hiroyuki Fujioka
2. *Customer Classification Method for Multiple Pedestrians Using Pressure Sensors*
Junjiro Hasegawa, Takuya Tajima, Takehiko Abe, Haruhiko Kimura
3. *Speed Dependencies of Human Gesture Recognition*
Junpei Endo, Masashi Inoue
4. *A Topological Approach to Natural Languages - Metaphorical Mappings between Space and Time*
Ikumi Imani, Itaru Takarajima

Special Session Track (SS-5): Nov.3, 15:20-17:00, M4.

Intuitive Human-System Interaction (III)

Chairs: Kenji Araki (Hokkaido University)

1. *Intuition as Mental Image Processing*
Masao Yokota
2. *A Facial Recognition Method Based on 3-D Images Analysis for Intuitive Human-System Interaction*
Lu Xu, Weiwei Liu, Kazuhiro Tsujino, Cunwei Lu
3. *A Head Posture Estimation Method based on 3-D Images Measurement for Intuitive Human-system Interaction*
Chen Xul, Ying Kang, Kazuhiro Tsujino, Cunwei Lu
4. *Data Visualization in *AIDA Programming Language*
Kanto Nakayama, Yutaka Watanobe

Special Session Track (SS-6): Nov.4, 13:00-14:40, M4.

Ubiquitous Computing for Intelligent Networks & Computing Social Awareness: Trends and Applications

Chairs: Cheng-Hsiung Hsieh (Chaoyang University of Technology)

1. *Dynamically Re-definable Ontology Based User Intension Awareness*
Yu-Hsiang Lin, Run-Ching Chen, Qiangfu Zhao
2. *Adaptive Polynomial Interpolation for Noise Replacement*
Cheng-Hsiung Hsieh, Sheng-Yung Hung, Po-Chin Huang, Chia-Wei Lan
3. *Design of Refrigerated Cargo Tracking System*
Jen-Yung Lin, Tuan-Anh Do, Bo-Kai Yang, Yung-Fa Huang
4. *Data-aware Environment for Grass-roots Development in Village Communities*
Bulbul Sen, Ranjan Sen

Workshop Track (WS-1): Nov.4, 13:00-14:40, M3.

Mobile Systems, E-Commerce, and Agent Technology (I)

Chairs: Chun-Hong Huang (Lunhwa University of Science and Technology)

1. *A Study of Integrating Social Networking Service into The Virtual Pet Web Game System*
Lin Hui, Wan-Chi Lin, Xiwen Li
2. *Contractibility for Digraphs and the Fixed Clique Property*
Rueiher Tsaur
3. *The Angle Coverage Algorithm of Mobile Object in Wireless Camera Sensor Networks*
Hua-Wen Tsai, Jhen-Jhou Jhong, Meng-Ruei Lin
4. *RTL/FPGA Implementation of Color Correction for Digital Cameras*
Yi-Hong Lu, Chun-Hong Huang
5. *Backpropagation Neural Network Model for Detecting Artificial Emotions with Color*
Min-Feng Lee, Guey-Shya Chen

Workshop Track (WS-2): Nov.4, 14:50-16:30, M3.

Mobile Systems, E-Commerce, and Agent Technology (II)

Chairs: Ming-Ni Wu (National Taichung University of Science and Technology)

1. *Abnormal Action Tracking Using Robot Vision System*
Li-Hong Juang , Ming-Ni Wu
2. *Hiding-type Speech Communication Using Ultrasonic Carrier Technology*
Li-Hong Juang , Ming-Ni Wu
3. *A Genetic Local Search Algorithm for the Resource-Constrained Project Scheduling Problem with Generalized Precedence Constraints*
Shih-Chieh Chen
4. *Mobile Agent based Train Control System for Mitigating Meet Conflict at Turnout*
Anshul Verma, Kiran Kumar Pattanaik

Workshop Track (WS-3): Nov.4, 14:50-16:30, M4.

Mobile Systems, E-Commerce, and Agent Technology (III)

Chairs: Jason C. Hung (Oversea Chinese University)

1. *The Paradigm Framework of Cloud Migration Based on BPR and gBPR*
Hsing-I Wang, Chou-Yin Hsu
2. *A Research of Critical Factors in the the Enterprise Adoption of Cloud Service*
Chou-Yin Hsu, Hsing-I Wang
3. *Exploring the Antecedents of Electronic Word-of-Mouth Communication : Using Involvement Perspective*
Hsiu-Hua Cheng, Jia-Jun Li
4. *Distributed MapReduce Framework using Distributed Hash Table*
Chuan-Feng Chiu, Steen J. Hsu, Sen-Ren Jan

5. *A Study for Task based Recommendation System for Travel Navigation*
Jason C. Hung, Victoria Hsu, Martin M. Weng

Workshop Track (WS-4): Nov.4, 14:50-16:30, M9.

Independent Computing

Chairs: Neil Y. Yen (University of Aizu)

1. *A Low Complexity Detection for the Binary MIMO System Using Lagrange Multipliers*
Wenlong Liu, Nana Sun, Minglu Jin, Shuxue Ding
2. *Sparse Representation and Dictionary Learning Based on Alternating Parallel Coordinate Descent*
Zunyi Tang, Toshiyo Tamura, Shuxue Ding, Zhenni Li
3. *Inducing High Performance Neural Networks Based on An Improved Decision Boundary Making Algorithm*
Yuya Kaneda, Qiangfu Zhao, Yong Liu, Neil Y. Yen
4. *Improvement of Security in Cloud Systems Based on Steganography*
Kazuki Murakami, Ryota Hanyu, Qiangfu Zhao, Yuya Kaneda
5. *One Source Signal Extraction Based on Metrics Transform*
Linlin Chen, Jifei Song, Xiaohong Ma, Shuxue Ding

UMEDIA 2013 Technical Program

-- Can we realize awareness via ubi-media?

UMEDIA Main Track 1 (UM – 1): Nov.2, 13:00-14:40, M8.

Biology & Healthcare

Chairs: Prof. Xin Zhu (University of Aizu)

1. *Precise Tracking and Initial Segmentation of Abdominal Aortic Aneurysm*
Shwu-Huey Yen, Hung-Zhi Wang, Hsiao-Wei Chang
2. *CT Image Reconstruction on PI-lines in Parallel-Beam*
Guiqin Yang, Huanyu Ning, Hui Wu, Zhanjun Jiang
3. *Advancement in Clinician Efficiency Through Awareness Computing*
Joe Jaudon, John Gobron
4. *The Relationship between Structural and Functional Connectivity of Default Mode Network in Generalized Tonic-clonic Seizure: An Analysis of Diffusion Tensor Imaging Combined Neural Mass Model*
Chen Xuhui , Zhang Zhe

UMEDIA Main Track 2 (UM – 2): Nov.2, 14:50-16:30, M8.

Media Design & Development

Chairs: Prof. Qingguo Zhou (Lan Zhou University)

1. *Organic Streams: Data Aggregation and Integration Based on Individual Needs*
Xiaokang Zhou, Qun Jin, Bo Wu, Wei Wang, Julong Pan, Wenbin Zheng
2. *Research on Converting CAD Model to MCNP Model Based on STEP File*
Jiaming Yang, Yanshan Tian, Shuan He, Junqiong Wang, Qingguo Zhou, Xunchao Zhang, Ji Qi, Xuesong Yan, Jason C. Hung
3. *A Heterogeneous CPU-GPU Implementation for Discrete Elements Simulation with Multiple GPUs*
Yuan Tian, Ji Qi, Junjie Lai, Qingguo Zhou, Lei Yang
4. **AIDA Declarations Supporting Program Compactness*
Yutaka Watanobe, Nikolay N. Mirenkov

UMEDIA Main Track 3 (UM – 3): Nov.3, 10:50-12:30, M8.

Sensing & Mining

Chairs: Prof. Qun Jin (Waseda University)

1. *An Innovative Application by Incorporating RFID Technology with Current Available Glucometer*
Hui-Yuan Liu, Tsung-Yi Tsai, Tai-Kuei Ren
2. *An Improved Algorithm on Micro-blog Community Detection*
Zhicheng Ma, Xin Shu , Guanghui Yan
3. *Recipe Popularity Prediction based on the Analysis of Social Reviews*
Xudong Mao, Yanghui Rao, Qing Li,
4. *Dynamically Identifying Roles in Social Media by Mapping Real World*
Bo Wu, Qun Jin, Xiaokang Zhou, Wei Wang, Fuhua Lin, Henry Leung

UMEDIA Main Track 4 (UM – 4): Nov.3, 13:30-15:10, M8.

Smart Home & Ubi-Media

Chairs: Prof. Zixue Cheng (University of Aizu)

1. *Adaptive Home Surveillance System using HTTP Streaming*
Duc V. Nguyen, Hung T. Le, Anh T. Pham, Truong Cong Thang, Jin Young Lee, Kugjin Yun
2. *Visually-aided Smart Kitchen Environment for Senior Citizens Suffering from Dementia*
Yahui Li, Muhammad Zeeshan Asghar, Petri Pulli,
3. *Robust Pedestrian Detection and Tracking with Shadow Removal in Indoor Environments*
Yunbiao Chen, Hui Yang, Chenxiang Li, Shuxiang Pu, Jianyang Zhou, Lingxiang Zheng
4. *Programmable Wireless Sensor Node Featuring Low-power FPGA and Microcontroller*
Shoichi Yamaguchi, Toshiaki Miyazaki, Junji Kitamichi, Song Guo, Tsuneo Tsukahara, Takafumi Hayashi

UMEDIA Main Track 5 (UM – 5): Nov.3, 15:20-17:00, M8.

Ubi-Media & Artificial Intelligent

Chairs: Prof. Alexander Vazhenin (University of Aizu)

1. *Task Management Strategies for Automatic Task Generation and Verification*
Kazuma Abe, Ruth Cortez, Alexander Vazhenin
2. *A Bayesian Approach to Skin Detection in YCbCr Color Space*
Zhongdong Wu, Saichao Wang, Zichao Han
3. *Adaptive Template Adjustment for Personalized Gesture Recognition Based on a Finger-worn Device*
Yinghui Zhou, Daisuke Saito, Lei Jing

UMEDIA Main Track 6 (UM – 6): Nov.4, 13:00-14:40, M8.

Ubi-Media & Image Processing

Chairs: Dr. Joseph Tsai (University of Aizu)

1. *Reversible Data Hiding on Dual Steganographic Images Exploiting Matrix and Histogram Modification*
Chin-Feng Lee, Yung-Fa Huang, Jui-Yu Chen
2. *Affective Color Transfer Based on Skin Color Preservation*
Hui-Wen Wan, Timothy K. Shih, Shwu-Huey Yen, Chun-Hong Huang
3. *Video Seam Carving with Perspective Line Structure Preservation*
Wan-Duo Ma, Timothy K. Shih, Hon-Hang Chang, Wee-Kheng Leow
4. *Detection of Seam Carving in JPEG Images*
Wen-Lung Chang, Timothy K. Shih, Hui-Huang Hsu

UMEDIA Main Track 7 (UM – 7): Nov.4, 14:50-16:30, M8.

Ubi-Media & Navigation

Chairs: Prof. Aiguo He (University of Aizu)

1. *A Dorsal Pathway Guided Visual Attention Model*
Lingxiang Zheng, Zianchao Zheng, Zhanjian Lin, Weiwei Tang, Changle Zhou
2. *A Basic Study of Human Face Direction Estimation Using Depth Sensor*
Ryota Nagayama, Takenobu Kazuma, Takuya Endo, Aiguo He
3. *“Canderoid”: A Mobile System to Remotely Monitor Travelling Status of the Elderly with Dementia*
Bin Xiao, Muhammad Zeeshan Asghar, Tapani Jämsä, Petri Pulli

UMEDIA Main Track 8 (UM – 8): Nov.2, 13:00-14:40, M9.

Ubi-Media Infrastructure & Middleware (I)

Chairs: Prof. Hui-Huang Hsu (Tamkang University)

1. *A New Transport Protocol for Cloud Servers*
Ching-Hsiang Chu, Jyh-Ming Chen, Eric Hsiao-Kuang Wu
2. *GPU Application on Deep Packet Inspection*
Richard Chun-Hung Lin, Yu-Hsiu Huang, Ying-Chih Lin, Cheng-Yi Lin
3. *Modeling Real-Time System Performance with Respect to Scheduling Analysis*
Fenglin Han, Peter Herrmann
4. *Smart Mobile Web Browsing*
Abdurhman Albasir, Sagar Naik, Tarek Abdunabi

UMEDIA Main Track 9 (UM – 9): Nov.2, 14:50-16:30, M9.

Ubi-Media Infrastructure & Middleware (II)

Chairs: Yinghui Zhou (University of Aizu)

1. *A Framework for Detecting Positions of Objects in Water*
Koki Kimura, K.S. Lasith Gunawardena, Masahito Hirakawa,
2. *Analyzing the Influence of Mobile Social Communities on Data Dissemination in Delay-Tolerant Networks*
Chih-Lin Hu, Pin-Chun Chiu
3. *Design and implementation of server cluster dynamic load balancing based on OpenFlow*
Zhihao Shang, Wenbo Chen, Qiang Ma, Bin Wu

UMEDIA Main Track 10 (UM – 10): Nov.3, 10:50-12:30, M9.

Ubi-Media Interface

Chairs: Prof. Timothy Shih (National Central University)

1. *The Communication Model between Humanoid Robot and Mobile Phone*
Huaming Chen, Yong Sheng, Rui Zhou, Qingguo Zhou, Shouqing Sun, Jason C. Hung
2. *Investigating Multi-touch Tabletop Technology: Facilitating Collaboration, Interaction and Awareness*
Rustam Shadiev, Wu-Yuin Hwang, Yu-Shu Yang, Yueh-Min Huang
3. *Spider King: Virtual Musical Instruments based on Microsoft Kinect*
Mu-Hsen Hsu, Kumara W. G. C. W., Timothy K. Shih, Zixue Cheng
4. *Controlling Spatial Sound with Table-top Interface*
Yuya Sasamoto, Michael Cohen, Julian Villegas

UMEDIA Main Track 11 (UM – 11): Nov.3, 13:30-15:10, M9.

Ubi-Media & Networking

Chairs: Dr. Peng Li (University of Aizu)

1. *The Modified Parallelized File Transfer Protocol for Multi-users*
Wei-Chen Lin, Jiun-Jian Liaw, Chiung-Ta Wu
2. *On Game-Theoretic Incentive Scheme for Mobile P2P Live Streaming Systems*
Ming-Hung Chen, Cheng-Fu Chou
3. *Mobility Support in IPv6 Networks with Dynamic DNS Servers*
Takayuki Tomonari, Shigetomo Kimura
4. *User-perceived Availability of M-for-N Shared Spare-server Systems with General Repair-time Distributions*
Hirokazu Ozaki

UMEDIA Main Track 12 (UM – 12): Nov.3, 15:20-17:00, M9.

Ubi-Media & Sensor Network

Chairs: Prof. Song Guo (University of Aizu)

1. *A Research of Multiple Mobile Agents Routing Algorithm Based on Redundancy for Wireless Sensor Network*
Xiao-Chao Dang, Zhanjun Hao
2. *Localization Mechanism with Mobile Reference Node in Grid-based Wireless Sensor Networks*
Chih-Hsiao Tsai, Yu-Jie Lin, Han-Ming Chang, Ying-Hong Wang
3. *ANTS: Pushing the Rapid Event Notification in Wireless Sensor and Actor Networks*
Mianxiong Dong, Kaoru Ota, Suguo Du, Haojin Zhu, Song Guo
4. *Key Management Scheme for Small Dynamic Node Groups in Wireless Sensor Networks*
Wei Sun, Yong Zhang, Fengkun Li, Lixin Ma

UMEDIA Main Track 13 (UM – 13): Nov.4, 13:00-14:40, M9.

Ubi-Media Education

Chairs: Junbo Wang (University of Aizu)

1. *Information Success Model for Learning System in Cloud Computing Environment*
Anna Kang, Jong Hyuk Park, Leonard Barolli, Hwa Young Jeong, Jae Dong Lee
2. *The Design and Display of Simple Interactions in Programming Courses*
Yi-Chun Liao, Han-Min Chien
3. *Research Trends in Mobile Assisted Language Learning from 2008 to 2012 A Content Analysis of Publications in Selected Journals*
Ching-Ju Chao, Yu-Ling Lin, Ya-Fei Yang, Chih-Kai Chang

UMEDIA Special Track: Nov.4, 16:00-17:00, UBIC-3D (Video Conference)

The Humans and Computers

Chairs: Michael Cohen (University of Aizu)

1. *Integrating the Collaborative Virtual Environment Protocol with Mathematica*
Anzu Nakada, Michael Cohen, Rasika Ranaweera
2. *Towards a Flexible Architecture for Interaction with Augmented Surfaces*
Paolo Bottoni, Kamen Kanev
3. *Markerless Actor Tracking for Virtual (TV) Studio Applications*
Jeff Daemen, Peter Haufs-Brusberg, Jens Herder