The 10th International Conference on Future Information Technology (FutureTech 2015)

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The 9th International Conference on Multimedia and Ubiquitous Engineering (MUE 2015)

May 18-20, 2015 Hanoi, Vietnam

Organized by

FutureTech, MUE &KIPS CSWRG



2015 International Conferences

(Sponsored / Technically Sponsored by KIPS / KIPS SWRG)

December 16-18, Bangkok, Thailand

- -The 7th International Conference on Computer Science and its Applications (CSA-15)
- -The 10th International Conference on Ubiquitous Information Technologies and Applications (CUTE-15)

Sept. 16 - 18, Jeju, Korea

- -The 16th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT-15)
- -The 8th International Conference on Human-centric Ubiquitous Computing and Applications (HumanCom 2015)
- -The 7th International Conference on Creative Converged IT (CCIT 2015)

July 8-10, Jeju, Korea

International Jeju Joint Conferences 2015

- -The 4th International Conference on Ubiquitous Computing Applications and Wireless Sensor Network (UCAWSN-15)
- -The 2015 International Conference on Advanced Information Technology and Services (InfoTech 2015)
- -The 7th International Conference on Information Technology Convergence and Services (ITCS 2015)
- -The 12nd International Conference on Secure and Trust Computing, data management, and Applications (STA 2015)



Message from the FutureTech 2015 General Chairs

FutureTech 2015 is the 10th event of the series of international scientific conference. This conference takes place on May 18-20, 2015 in Hanoi, Vietnam. The aim of the FutureTech 2015 is to provide an international forum for scientific research in the technologies and application of information technology. FutureTech 2015 is the next edition of FutureTech 2014 (Zhangjiajie, China), FutureTech 2013 (Gwangju, Korea), FutureTech 2012 (Vancouver, Canada), FutureTech 2011 (Loutraki, Greece), FutureTech 2010 (Busan, Korea, May 2010) which was the next event in a series of highly successful the International Symposium on Ubiquitous Applications & Security Services (UASS-09, USA, Jan. 2009), previously held as UASS-08 (Okinawa, Japan, Mar. 2008), UASS-07 (Kuala Lumpur, Malaysia, August, 2007), and UASS-06 (Glasgow, Scotland, UK, May, 2006).

The conference papers included in the proceedings cover the following topics: Hybrid Information Technology High Performance Computing, Cloud and Cluster Computing, Ubiquitous Networks and Wireless Communications Digital Convergence, Multimedia Convergence, Intelligent and Pervasive Applications, Security and Trust Computing, IT Management and Service Bioinformatics and Bio-Inspired Computing, Database and Data Mining, Knowledge System and Intelligent Agent, Game and Graphics Human-centric Computing and Social Networks, Advanced Mechanical Engineering, Computer Aided Machine Design, Control and Automations & Simulation. Accepted and presented papers highlight new trends and challenges of future information technologies. We hope readers will find these results useful and inspiring for their future research.

We would like to express our sincere thanks to Steering Chair: James J. Park (SeoulTech, Korea) and Hamid R. Arabnia (The University of Georgia, USA). Our special thanks go to the Program Chairs: Joon-Min Gil (Catholic University of Daegu, Korea), Neil Y. Yen (The University of Aizu, Japan), Muhammad Khurram Khan (King Saud University, Saudi Arabia), all Program Committee members and all reviewers for their valuable efforts in the review process that helped us to guarantee the highest quality of the selected papers for the conference.

We cordially thank all the authors for their valuable contributions and the other participants of this conference. The conference would not have been possible without their support. Thanks are also due to the many experts who contributed to making the event a success.

FutureTech 2015 General Chairs

C.S. Raghavendra, University of Southern California, USA Jason C. Hung, Oversea Chinese University, Taiwan Doo-soon Park, SoonChunHyang University, Korea Jianhua Ma, Hosei University, Japan



Message from the FutureTech 2015Program Chairs

Welcome to the 10th International Conference on Future Information Technology (FutureTech 2015), which will be held in Hanoi, Vietnam on May 18–20, 2015. FutureTech 2015 will the most comprehensive conference focused on the various aspects of information technologies. It will provide an opportunity for academic and industry professionals to discuss recent progress in the area of future information technologies. In addition, the conference will publish high quality papers which are closely related to the various theories and practical applications in multimedia and ubiquitous engineering. Furthermore, we expect that the conference and its publications will be a trigger for further related research and technology improvements in these important subjects.

For FutureTech 2015, we received many paper submissions, after a rigorous peer review process, we accepted only articles with high quality for the FutureTech 2015 proceedings, published by the Springer. All submitted papers have undergone blind reviews by at least two reviewers from the technical program committee, which consists of leading researchers around the globe. Without their hard work, achieving such a high-quality proceeding would not have been possible. We take this opportunity to thank them for their great support and cooperation. We would like to sincerely thank the following invited speakers who kindly accepted our invitations, and, in this way, helped to meet the objectives of the conference: Prof. Han-Chieh Chao, National Ilan University, Taiwan and Prof. Timothy K. Shih, National Central University, Taiwan. Finally, we would like to thank all of you for your participation in our conference, and also thank all the authors, reviewers, and organizing committee members. Thank you and enjoy the conference!

FutureTech 2015 Program Chairs

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Rudolf Tsoy, Far Eastern State Academy, Russia

Salem Abdelbadeeh, Ain Shams University, Egypt

Song Fu, University of North Texas, USA

Wei-Chuen Yau, Multimedia University, Malaysia

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Wyne Mudasser, National University, USA

Xiao Liu, East China Normal University, China

Yeun Chan, Yeob Khalifa University of Science, Technology and Research, UAE

Yo-Ping Huang, National Taipei University of Technology, Taiwan

Zhang Yunquan, State Key Lab of Computer Science, China

Zhang Zhiqiang, Harbin Engineering University, China



Message from the MUE 2015 General Chairs

MUE 2015 is the 9th event of the series of international scientific conference. This conference takes place on May 18-20, 2015 in Hanoi, Vietnam. The aim of the MUE 2015 is to provide an international forum for scientific research in the technologies and application of Multimedia and Ubiquitous Engineering. Ever since its inception, International Conference on Multimedia and Ubiquitous Engineering has been successfully held as MUE-14 (Zhangjiajie, China, May 2014), MUE-13 (Seoul, Korea, May 2013), MUE-12 (Madrid, Spain, July 2012), MUE-11 (Loutraki, Greece, June 2011), MUE-10 (Cebu, Philippines, August 2010), MUE-09 (Qingdao, China, June 2009), MUE-08 (Busan, Korea, April 2008), and MUE-07 (Seoul, Korea, April 2007).

The conference papers included in the proceedings cover the following topics: Multimedia Modeling and Processing, Ubiquitous and Pervasive Computing, Ubiquitous Networks and Mobile Communications, Intelligent Computing, Multimedia and Ubiquitous Computing Security, Multimedia and Ubiquitous Services, Multimedia Entertainment, IT and Multimedia Applications. Accepted and presented papers highlight new trends and challenges of Multimedia and Ubiquitous Engineering. We hope readers will find these results useful and inspiring for their future research.

We would like to express our sincere thanks to Steering Chair: James J. (Jong Hyuk) Park (SeoulTech, Korea). Our special thanks go to the Program Chairs: Gangman Yi (Gangneung-Wonju National University, Korea) and Chengcui Zhang (The University of Alabama at Birmingham, USA), all Program Committee members and all reviewers for their valuable efforts in the review process that helped us to guarantee the highest quality of the selected papers for the conference.

MUE 2015 General Chairs

Shu-Ching Chen, Florida International University, USA Young-Sik Jeong, Dongguk University, Korea Han-Chieh, Chao National Ilan University, Taiwan



Message from the MUE 2015Program Chairs

Welcome to the 9th International Conference on Multimedia and Ubiquitous Engineering (MUE 2015), which will be held in Hanoi, Vietnam on May 18–20, 2015. MUE 2015 will the most comprehensive conference focused on the various aspects of multimedia and ubiquitous engineering. It will provide an opportunity for academic and industry professionals to discuss recent progress in the area of multimedia and ubiquitous environment. In addition, the conference will publish high quality papers which are closely related to the various theories and practical applications in multimedia and ubiquitous engineering. Furthermore, we expect that the conference and its publications will be a trigger for further related research and technology improvements in these important subjects.

For MUE 2015, we received many paper submissions, after a rigorous peer review process, we accepted only articles with high quality for the MUE 2015 proceedings, published by the Springer. All submitted papers have undergone blind reviews by at least two reviewers from the technical program committee, which consists of leading researchers around the globe. Without their hard work, achieving such a high-quality proceeding would not have been possible. We take this opportunity to thank them for their great support and cooperation. Finally, we would like to thank all of you for your participation in our conference, and also thank all the authors, reviewers, and organizing committee members. Thank you and enjoy the conference!

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Zheng-Jun Zha, National University of Singapore, Singapore



Invited Speaker



Towards greener data centers – problems and approaches

Prof. Nguyen Huu Thanh

Department of Communication Engineering School of Electronics and Telecommunications Hanoi University of Science and Technology, Vietnam

Abstract

Cloud computing and other data services in the recent years have become increasingly popular owing to the evolution of data center and parallel computing paradigms. New data center and cloud-based multimedia applications such as Video on Demand (e.g., YouTube), online storage and other cloud services etc., are becoming more common and are requiring additional network and server resources. Furthermore, data center networks nowadays are specifically designed to be extremely over dimensioned in terms of switching capacity and of number of deployed links and nodes to guarantee zero-loss and minimum latency packet forwarding. Thus, recent surveys have shown that the energy consumption in a data center considerably contributes to its operation costs. A remarkable part of the large energy volume consumed in data centers today is due to the over-provisioning of such network resources as switches, links, and servers to meet the stringent requirements on reliability. Therefore performance and energy issues are important factors for the design of large multi-tier data centers that can support multiple services.

The tutorial is divided into two parts. In the first part of the talk, we address the motivations for current research activities on the areas of Green ICT. Recent hot research topics for energy-efficient networking, especially green data centers and clouds will also be discussed. In the second part, experiences and research results on the areas of Green Networking at the Future Internet research group (HUST) will be shared, including data center traffic measurement and modeling, energy profiling of network devices, energy-aware testbed, protocols and optimization algorithms.

Biography

Nguyen Huu Thanh received B.S and M.Sc in Electrical Engineering from Hanoi University of Science and Technology, Vietnam in 1993 and 1995, respectively. In 2002, he received his PhD with summa cum laude in Computer Science from the University of Federal Armed Forces Munich (Germany). From 2002 to 2004 he has been with the Fraunhofer Institute for Open Communication Systems (FOKUS) in Berlin, Germany. From 2004 Nguyen Huu Thanh has been working as associate professor in the School of Electronics and Telecommunications, HUST. His research interests include radio resource management in 4G systems, QoS/QoE, the Future Internet, energy-efficient networking and software-defined networking. He is currently member of KICS (Korea), executive committee member of the Radio Electronics Association of Vietnam (REV) and Chair of IEEE Vietnam Section.



PROGRAM SCHEDULE FOR FUTURETECH & MUE 2015

Day 1, May 18, 2015						
Time	Min	HALL -A	HALL B	HALL C		
12:40-13:00	20	Registration				
13:00-14:30	90	Session A-1 FT Chair : Ahmed Absi	Session B-1 FT Chair :Kwang Il Hwang	Session C-1 MUE Chair : Asad Masood Khattak		
14:30-14:40	10	Coffee Break				
14:40-15:20	40	Keynote: Towards greener data centers – problems and approaches Prof. Nguyen Huu Thanh Department of Communication Engineering School of Electronics and Telecommunications Hanoi University of Science and Technology Chair: Gangman Yi				
15:20-16:50	90	Session A-2 FT Chair : Ahmed Absi	Session B-2 FT Chair :Jeong Ah Kim	Session C-2 MUE Chair : Kwang Sik Chung		
16:50-17:00	10	Coffee Break				
17:00-18:30	90	Session A-3 FT Chair :Fei Hao	Session B-3 RNN Chair :JoonSeok Park	Session C-3 MUE Chair :Joon-Min Gil		
19:00-21:00	120	Banquet				

Day 2, May 19, 2015						
Time	Min	HALL -A	HALL-B			
09:00-09:20	20	Registration				
09:20-12:20	180	Session A-4 FT Chair : Joon-Min Gil	Session B-4			
12:20-15:20	180	Organizing Committee Meeting				



Day 3, May 20, 2015					
Time	Min	HALL-A	HALL-B		
09:00-12:00	240	Executive Meeting - Organized by FUTURETECH & MUE 2015			

- 1. A paper presentation should be made by one of authors of the paper for 20 minute (15 minutes for the presentation itself and 5 minutes for Q/A).
- 2. All speakers of each session should meet the session chair at their room 10 minutes before the session begins.
- 3. Windows 7 laptops running the Adobe Reader and Microsoft Office for paper presentations will be prepared. Please prepare for your presentation.





DETAILED SCHEDULE FOR THE 10TH INTERNATIONAL CONFERENCE ON FUTURE INFORMATION TECHNOLOGY (FUTURETECH 2015) AND

THE 9TH INTERNATIONAL CONFERENCE ON MULTIMEDIA AND UBIQUITOUS ENGINEERING (MUE-15)

Day 1, May18, 2015 (Monday)

12:40-13:00 Registration

13:00-14:30 <u>Session A-1 :FT</u>

(HALL A)

(Chair: Ahmed Absi)

1. The study on the detection of the damaged file using the graph of the information entropy for Security Management

Chae Ho Cho, Sungsuk Kim, Seonmi Han, Kwang Sik Chung

2. Development of a Bidirectional Transformation Supporting Tool for Formalization with Logical Formulas and Its Application

Shunsuke Nanaumi, Kazunori Wagatsuma, Hongbiao Gao, Yuichi Goto, Jingde Cheng

3. An Extension of QSL for E-Testing and its Application in an Offline E-testing Environment

Zhe Wang, Yuan Zhou, Bo Wang, Yuichi Goto, Jingde Cheng

- **4.** Enhancing Dataset Processing in Hadoop YARN Performance for Big Data Applications *Ahmed Absi, Dae-Ki Kang*
- 5. A Tasking Deadlock Detector for Ada 2012 Programs

Bo Wang, Takeo Ekiba, Yuichi Goto, Jingde Cheng

6. Automated Theorem Finding by Forward Reasoning Based on Strong Relevant Logic: A Case Study in Graph Theory

Hongbiao Gao, Yuichi Goto, Jingde Cheng

7. A Middleware supporting Query Processing on Distributed CUBRID Hyeong-Il Kim, Min Yoon, YoungSung Shin, Jae-Woo Chang

- 8. Many-to-Many Data Collection for Mobile Users in Wireless Sensor Networks Chi-Fu Huang, Wei-Chen Lin
- 9. A Study on the Performance Analysis of a V2V-Communication-Based Autonomous Emergency Braking System for High-Speed Driving under Various Road Surface Conditions

Hyeonggeun Mun, Byeongwoo Kim

13:00-14:30 <u>Session B-1 :FT</u>

(HALL B)

(Chair: Kwang II Hwang)



1. Study of Censorship in Named Data Networking

Xingmin Cui, Lucas C.K. Hui, S.M. Yiu, Yu Hin Tsang

2. Robust Facial States Estimation against Occlusion and Inference of Driver? Drowsiness using Hidden Markov Model

In-Ho Choi, Chan-Hee Jeong, Yong-Guk Kim

3. The Disaster Rescue Robot Design and Implementation Using Open Source Yung-Hui Chen, Jyu-Wei Wang

4. The Direct and Indirect Effects of Perceived Usability of Smartphone Applications on User Satisfaction

Wonjin Jung, Taehwan Kim

5. A Multimetric Approach for Discriminating Distributed Denial of Service Attacks from Flash Crowds

Mourad Elhadef

6. A New Query Integrity Verification Method for Encrypted Data in Database Outsourcing

Miyoung Jang, Min Yoon, Youngho Song, Jae-Woo Chang

7. Preventing Private Information in Secure Dissemination Hye-Kyeong Ko

8. Method of Path Computation using National Research Network Federation Jinhyung Park, Joon-Min Gil, Woohyun Kim, Jeongwook Park, Hyunhun Cho

9. Proposal and Validation of AEB System Algorithm for Various Slope Environments Ming Lin, Jaewoo Yoon, Byeongwoo Kim

13:00-14:30 <u>Session C-1 : MUE</u>

(HALL C)

(Chair: Asad Masood Khattak)

1. Real-time virtual Lego brick manipulation based on hand gesture recognition Van-Thanh Tran, Dongho Kim, Young-Sik Jeong

2. Equivalent Test Model of Wireless Optical Communication System for Automotive Environment

Sangyub Lee, Jaekyu Lee, Duckkeun Park, Jaejin Ko

3. Feasibility Study of Non-linear Apodization for IVUS B-mode Imaging

Jin Ho Sung, Seon Mi Ji, Chan Yuk Park, Sung Yun Park, Sung Min Kim, Won Seuk Jang,

Byeong Cheol Choi, Jong Seob Jeong

4. An Empirical Study of Impacts of Intention to Use Smart Health Care Services *Yoojin Moon, Young-Ho Hwang, Sungkap Cho*

5. Lightweight Context-aware Activity Recognition

Byung Gill Go, Asad Masood Khattak, Babar Shah

6. Efficient Sliding Window Join in Data Stream Processing *Hyeon Gyu Kim*

7. The Effect of the User Interface Design of Smartphone Applications on Users' Individual Experiences of Performance

Wonjin Jung

- 8. A Design and Development of Secure-Coding Check System Based on CVE and CWE Hyungjoo Kim, Moonseog Jun
- 9. Lightweight Encryption Technique for Content Security in Open IPTV Environment Jaewoo Kim, Younggu Lee, Moonseog Jun



14:30-14:40 Coffee break

14:40-15:20 Keynote Speech

(HALLA)

(Chair: Gangman Yi)

"Towards greener data centers – problems and approaches"

Prof. Nguyen Huu Thanh,
Department of Communication Engineering
School of Electronics and Telecommunications
Hanoi University of Science and Technology, Vietnam

15:20-16:50 Session A-2: FT

(HALL A)

(Chair: Ahmed Absi)

1. Design and Performance Evaluation of a VANET-based Adaptive Overtaking Assistance System

Ihn-Han Bae, Jae-Kon Lee

- 2. Cyber Security Modeling for the Operation of Virtualized Trusted Networks (VTN) Yong-Hee Jeon
- 3. A Discovery Support Scheme for Inter-domain DDS Gateways in Cyber-Physical Systems

Wooyeob Lee, Sungmoon Chung, Sungryung Cho, Inwhee Joe, Jeman Park

4. Residual Histogram Shifting Technique Based on Cascading Prediction for Reversible Data Hiding

Yu-Chen Hu, PiYu Tsai, Jieh-Shan Yeh, Wu-Lin Chen

5. Vulnerability Analysis on Smartphone Fingerprint Templates Young-Hoo Jo, Sung-Yun Jeon, Jong-Hyuk Im, Mun-Kyu Lee

6. Incremental Multilevel Association Rule Mining of a Dynamic Database under a Change of a Minimum Support Threshold

Nophadon Pumjun, Worapoj Kreesuradej

- 7. Compressing Method of NetCDF Files containing Clustered Sparse Matrix Suntae Hwang, Gyuyeun Choi, Daeyoung Heo
- **8.** A Design and Implementation of lightweight ENC for Android App Moonsub Song, Kwangil Lee, Byungtae Jang, Soonghwan Ro
- 9. A Supporting Tool for Spiral Model of Cryptographic Protocol Design with Reasoning-based Formal Analysis

Kazunori Wagatsuma, Tsubasa Harada, Shogo Anze, Yuichi Goto, Jingde Cheng

15:20-16:50 Session B-2 :FT

(HALL C)

(Chair: Jeong Ah Kim)



1. Alternative way to manage the research documents

Jeong Ah Kim, Jae-Young Choi, Jong-Won Ko, Sun-Tae Kim, Young-Hwa Cho

- 2. R&D Project Management using Context in Document: Research Descriptor Jeong Ah Kim, Jae-Young Choi, Jong-Won Ko, Sun-Tae Kim, Young-Hwa Cho
- 3. Research Descriptor based Project Management Approach for R&D Projects Jong-Won Ko, Jae-Young Choi, Jeong-Ah Kim, Sun-Tae Kim, Young-Hwa Cho
- **4.** Attributes for Characterizing Java Methods *Illo Lee, Suntae Kim, Sooyong Park, Younghwa Cho*
- 5. A study on Real Time Circular Motion in Robots using Kalman Filters Malrey Lee, Suntae Kim, Younghwa Cho
- 6. A Study on Traceability Between Documents of a Software R&D Project Suntae Kim, HyunYoung Kim, Jeong Ah Kim, Younghwa Cho
- 7. Integrated Information Retrieval for Distributed Heterogeneous Ontology System Sang-Won Hwang, Young-Kwang Nam, Lee-Nam Kwon, Jae-Soo Kim, Byoung-Dai Lee
- 8. Research on Design of LTE-based High-Speed Railway Networks in Korea : Current and emerging issues

Jin-Kyu Choi, Hanbyeog Cho, Hyun-Seo Oh, Kyong-Ho Kim, Heung-Gyoon Ryu

9. Development of a quantitative evaluation method for vehicle control systems based on road information

Jinyong Kim, Changhyun Jeong, Dohyun Jung, Byeongwoo Kim

15:20-16:50 Session C-2 : MUE

(HALL B)

(Chair: Kwang Sik Chung)

1. RDEA: A Novel Video Encryption Algorithm

Zhiyong Li, Xingjun Wang, Yuxi Lin, Chao Cheng

2. Embedding Data into Audio Signal by Combining Sliding Window Technique with a Novel Marking Bit Method

Vu Van Tam, Duc-Tan Tran, Nguyen Thanh Thuy, Phan Trong Hanh

3. A Study on the Hierarchical Structure of Conditional Replenishment A for SC-MMH 3DTV System

Kyeong-Hoon Jung, Sung-Hoon Kim, Dong-Wook Kang

- **4.** Performance Comparison for CFDP NAK Modes in Deep Space Communications Yong Li, Kyungrak Lee, Yantao Kan, Inwhee Joe, Yeonyi Choi
- 5. The Design and Implementation of Mesh-based DTN for Disaster Situations Jaewon Lee, Abdul Aziz, Suoning Ma, Inwhee Joe, Yeonyi Choi
- 6. A Fire Evacuation Guidance System based on Ubiquitous Sensor Networks Yeonyi Choi, Seokjoon Hong, Inwhee Joe
- 7. Analysis of the HOG Parameter Effect on the Performance of Vision-Based Vehicle Detection by Support Vector Machine Classifier

Seok-Il Oh, Kang Yi, Kyeong-Hoon Jung

- 8. Stage Image Control System By Visual Tracking Sooyeon Lim, Jaehe Lyu
- 9. Lightweight mutual authentication routing protocols design based on LEACH in sensor network environment

Jaeseung Lee, Jae-pyo Park, Eunhwan Kim, Moon-seog Jun



16:50-17:00 Coffee break

17:00-18:30 Session A-3: FT

(HALL A)

(Chair: Fei Hao)

1. Possibility of Using Embedded Sensors of Smart Devices for Augmented Reality Application

Ondrej Bilek, Ondrej Krejcar

2. Economic and Technological Aspects of Social Networks in European business sector Petra Maresova

3. Decision Making Criteria for Cloud Computing Deployment

Petra Maresova

4. Idea of Personal Digital Memories using Smart Application

Martin Zmitko, Ondrej Krejcar,

5. Principles of Usability in Human-Computer Interaction

Tomas Hustak, Ondrej Krejcar

6. A Design of Dual Encryption Based On Data Obfuscation and Mutual Authentication in the Smart-Grid Environment

Wonkyu Choi, Jungoh Park, Jaesik Lee, MoonSeog Jun

7. A Study on Realtime Detecting Smishing on Cloud Computing Environment

Ayoung Lee, Kyounghun Kim, Heeman Lee, Moonseog Jun

8. An Approach to Discovering Weighted Service Pattern

Jeong Hee Hwang, MiSug Gu

9. Design challenges and Implementation of A Shipborne Gateway for Safe and Secure Navigational Networks

Kwangil Lee, MoonSub Song

10. Study of Measures for Detecting Abnormal Access by Establishing the Context Data-Based Security Policy in the BYOD Environment

Changmin Jo, Taeeun Kim, Dongwan Kang, Hwankuk Kim

17:00-18:30 <u>Session B-3: RNN</u>

(HALL B)

(Chair: JoonSeok Park)

1. Periocular Recognition Based on LBP Method and Matching by Bit-shifting

So Ra Cho, Gi Pyo Nam, Kwang Yong Shin, Dat Tien Nguyen, Kang Ryoung Park

2. Color and depth image correspondence for Kinect v2

Changhee Kim, Seokmin Yun, Seung-Won Jung, Chee Sun Won

3. Reduced Reference Quality Metric for Depth Images

Thanh-Ha Le, Seongjo Lee, Seung-Won Jung, Chee Sun Won

4. Sustainable Operation Algorithm for High Availability with Integrated Desktop Storage based on Virtualization

Hyun-Woo Kim, HwiRim Byun, Young-Sik Jeon

5. Robot reinforcement learning for automatically avoiding a dynamic obstacle in a virtual environment

Phuong Chu, Hoang Vu, Donghyeon Yeo, Byeonggwon Lee, Kyhyun Um, Kyungeun Cho

6. Smart Virtual Lab using Hand Gestures



Warda Ikram, Yoonji Jeong, Byeonggwon Lee, Kyhyun Um, Kyungeun Cho

- 7. Internal Topology based Flexible Shortest Path Planning Method for Indoor Navigation Yan Li, Byeong-Seok Shin
- 8. Analysis on Temporal Sparsity of Human Face for Various Emotion Stimulli Unsoo Jang, Byoung Cheul Kim, Yoonkyoung Kim, Minwoo Park, Eui Chul Lee
- 9. Monocular eye tracking system using webcam and zoom lens
 Kun Ha Suh, Yun-Jung Kim, Yoonkyoung Kim, Daejune Ko, Eui Chul Lee

17:00-18:30 <u>SessionC-3: MUE</u>

(HALL C)

(Chair: Jun Min Gil)

1. Data Hiding for H.264/AVC Based on the Motion Vector of 16 Grids

Cheng-Hsing Yang, Yih-Kai Lin, Chun-Hao Chang, Jin-Yi Chen

2. Idle-Time Processing in Time-Slide Window Join *Hyeon Gyu Kim*

3. A Large-scale Object-based Active Storage Platform for Data Analytics in the Internet of Things

Quanqing Xu, Khin Mi Mi Aung, Yongqing Zhu, Khai Leong Yong

4. Concurrent Regeneration Code with Local Reconstruction in Distributed Storage Systems

Quanqing Xu, Weiya Xi, Khai Leong Yong, Chao Jin

- **5.** A Technique for Streaming Multiple Video Parts in Parallel Based on Dash.js Konthorn Sangkul, Sucha Smanchat, Jo Yew Tham
- 6. Prioritized Medical Image Forwarding over DTN in a Volcano Disaster Muhammad Ashar, Morihiko Tamai, Yutaka Arakawa, Keiichi Yasumoto
- 7. A Framework of Personal Data Analytics for Well-Being Oriented Life Support Seiji Kasuya, Xiaokang Zhou, Shoji NIshimura, Qun Jin
- 8. Method research for safe authentication in cloud environment Junho Song, Jaesoo Kim, ManSik Kim, Moon-seog Jun
- 9. Graph-based Motor Primitive Generation Method of UAVs based on Demonstrationbased Learning

Yunsick Sung, Jeonghoon Kwak, Jonghyuk Park

19:00-21:00 **Banquet**



Day 2, May19, 2015 (Tuesday)

09:00-09:20 Registration

09:20-12:20 <u>Session A-1 : FT</u>

(HALL A)

(Chair: Jun Min Gil)

1. Proxy based Mobility Management Scheme using Prediction Algorithm

Daewon Lee, Daeyong Jung, Doo-Soon Park, HwaMin Lee

2. hFractal: A Cloud-assisted Simulator of Virtual Plants for Digital Agriculture Fei Hao, Doo-Soon Park, Young-Sik Jeong, Jong Hyuk Park

3. Task Result Verification using Resource Clustering in Desktop Grids Joon-Min Gil

4. Application of Data Mining for Crime Analysis

Aziz Nasridinov, Gangman Yi

5. Path Planning for Avoiding Obstacles for Unmanned Ground Vehicles Gyoungeun Kim, Deok Gyu Lee, Byeongwoo Kim

6. Improved AEB Performance at Intersections with Diverse Road Surface Conditions Based on V2V Communication

Sangduck Jeon, Deok Gyu Lee, Byeongwoo Kim

7. Secure Initial Attach based on Challenge-Response Method in LTE Conforming to LTE Standards

Jungho Kang

8. HBR-ACS Human Behavior Recognition-based Access Control System Hyungjin Im, Jeong Kyu Lee, Jong Hyuk Park

12:20-15:20 Organizing Committee Meeting



Day 3, May 20, 2015 (Wednesday)

09:00-12:00 <u>Executive Meeting - Organized by FUTURETECH & MUE 2015</u>



CONFERENCE VENUE



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By car

Noi Bai International Airport - Approximately 27 km to Hotel, about 40 minutes by Taxi or Limo Hanoi National Convention Center - Approximately 5 km to Hotel, about 15 minutes by Taxi or Limo







