The International Conference on Information Technology Convergence and Services (ITCS 2013) is the FTRA 5th event of the series of International Scientific Conference. This conference takes place on July 8–10, 2013 at Fukuoka Institute of Technology, Fukuoka, Japan.

The aim of the ITCS 2013 was to provide an international forum for scientific research in the technologies and application of Information Technology Convergence and its Services. The ITCS previous editions were held successful Gwangju, Korea, September 2012 (ITCS 2012), Gwangju, Korea, October 2011 (ITCS 2011), Cebu, Philippines, August 2010 (ITCS 2010), and Bangalore, India, January 2009 (ITCS 2009).

The papers included in the proceedings cover different topics such as: Advanced Computational Science and Applications, Advanced Electrical and Electronics Engineering and Technology, Intelligent Manufacturing Technology and Services, Advanced Management Information Systems and Services, Electronic Commerce, Business and Management, Intelligent Vehicular Systems and Communications, Bio-inspired Computing and Applications, Advanced IT Medical Engineering, Modeling and Services for Intelligent Building, Town, and City.

The accepted and presented papers highlight new trends and challenges of Information Technology Convergence and its Services. They present new research ideas which could lead to novel and innovative applications. We hope you will find these results useful and inspiring for your future research.

We would like to express our sincere thanks to Steering Chairs: James J. (Jong Hyuk) Park (Seoul National University of Science and Technology, Korea). Our special thanks go to the Program Chairs: Minoru Uehara (Toyo University, Japan), Markus Aleksy (ABB AG, Germany), Hwa-Young Jeong (Kyung Hee University, Korea), and Jinjun Chen (Swinburne University of Technology, Australia). We also thank all Program Committee members and all additional reviewers for their valuable efforts in the review process, which helped us to guarantee the highest quality of the selected papers for the conference.
We cordially thank all authors for their valuable contributions and other participants of this conference. The conference would not have been possible without their support. Many thanks also for many experts who contributed to making the event a success.

We would like to give special thanks to FIT and especially Mr. Yoji Unoki, Chairman of Board of Trustees of FIT and Prof. Teruo Shimomura, President of FIT for hosting ITCS 2013, providing the university facilities and their continuous support.

We would like to thank Fukuoka Convention Bureau and Fukuoka City for their great support, help, advices, and local arrangement.

Finally, we would like to thank the Local Arrangement Team at FIT and the Administration Staff of FIT for their support and for making excellent local arrangement for the conference.

We do hope that you will enjoy the conference and beautiful city of Fukuoka.

Leonard Barolli
Fukuoka Institute of Technology
Japan

Young-Sik Jeong
Dongguk University
Korea

David Taniar
Monash University
Australia
Welcome to the 5th FTRA International Conference on Information Technology Convergence and Services (ITCS 2013) which will be held at Fukuoka Institute of Technology (FIT), Fukuoka, Japan on July, 8–10, 2013. The ITCS 2013 will be the most comprehensive conference focused on the various aspects of advances in information technology convergence, applications, and services. The ITCS 2013 will provide an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of ITCS. In addition, the conference will publish high quality papers which are closely related to the various theories, modeling, and practical applications in ITCS. Furthermore, we expect that the conference and its publications will be a trigger for further related research and technology improvements in this important subject.

For ITCS 2013, we received many paper submissions. After a rigorous peer review process, we accepted 40 high quality papers for ITCS 2013 proceedings, which will be 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 world. 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 Keynote Speakers who kindly accepted our invitations and helped to meet the objectives of the conference. 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!

Minoru Uehara
Toyo University
Japan

Markus Aleksy
ABB AG
Germany
Message from ITCS 2013 Program Chairs

Michael H. (Hwa-Young) Jeong
Kyung Hee University
Korea

Jinjun Chen
Swinburne University of Technology
Australia
Organization

Honorary Chair
Teruo Shimomura, FIT President, Japan
Makoto Takizawa, Seikei University, Japan

Steering Chairs
James J. Park, SeoulTech, Korea

General Chairs
Leonard Barolli, Fukuoka Institute of Technology, Japan
Young-Sik Jeong, Dongguk University, Korea
David Taniar, Monash University, Australia

Program Chairs
Minoru Uehara, Toyo University, Japan
Markus Aleksy, ABB AG, Germany
Hwa-Young Jeong, Kyung Hee University, Korea
Jinjun Chen, Swinburne University of Technology, Australia

Workshop Chairs
Tomoya Enokido, Rissho University, Japan
Hui-Huang Hsu, Tamkang University, Taiwan
Eric Pardede, La Trobe University, Australia
Seung-Ho Lim, Hankuk University of Foreign Studies, Korea
Publication Chair

Akio Koyama, Yamagata University, Japan
Jaehwa Chung, Korea National Open University, Korea

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Hangbae Chang, Sangmyung University, Korea

Invited Speakers

Fatos Xhafa, Technical University of Catalonia (BarcelonaTech), Spain
Welcome to the 10th FTRA International Conference on Secure and Trust Computing, Data Management, and Applications (STA 2013), which will be held at Fukuoka Institute of Technology (FIT), Fukuoka, Japan from July 8–10, 2013.

The aim of the conference is to deliver a platform of scientific interaction between challenging areas of research and development of future IT-enabled applications. The STA 2013 is an open forum for researchers to discuss theories and practical applications of secure and trust computing and data management. These problems are very important for the Internet and IT applications. Therefore, during the conference, it will be presented important results to solve the application services and various problems within the scope of STA 2013. In addition, we expect it will trigger further related research and technology developments which will improve our lives in the future.

The organization of an International Conference requires the support and help of many people. A lot of people have helped and worked hard to produce a successful STA 2013 technical program and conference proceedings. First, we would like to thank all authors for submitting their papers, the Program Committee Members, and the reviewers who carried out the most difficult work by carefully evaluating the submitted papers.

We are grateful to Honorary Co-Chairs: Prof. Teruo Shimomura, FIT President, and Prof. Makoto Takizawa, Hosei University, Japan. We would like to thank the Steering Committee Chair of STA Prof. James J. (Jong Hyuk) Park for his strong encouragement and guidance. We give special thanks to STA 2013 PC Chairs: Dr. Alfredo Cuzzocrea, ICAR-CNR and University of Calabria, Italy, Prof. Tomoya Enokido, Risho University, Japan, Prof. Hiroaki Kikuchi, Meiji University, Japan, and Dr. Young-Gab Kim, Catholic University of Daegu, Korea for their great efforts to make the conference successful. This year together with STA 2013, we have four International Workshops. We would like to thank Workshops Chairs: Dr. Neil Y. Yen, Dr. Jin-Mook Kim, Dr. Muhamed Younas, and Dr. Makoto Ikeda for organizing STA 2013 workshops.

We would like to give special thanks to FIT and especially Mr. Yoji Unoki, Chairman of Board of Trustees of FIT for hosting STA 2013, providing the university facilities and his continuous support. We would like to thank Fukuoka Convention Bureau and Fukuoka City for their great support, help, advices, and
local arrangement. Finally, we would like to thank the Local Arrangement Team at FIT and the Administration Staff of FIT for their support and for making excellent local arrangement for the conference. We hope you will have a good experience and enjoy the beautiful city of Fukuoka.

Leonard Barolli
Fukuoka Institute of Technology
Japan

Mohammad S. Obaidat
Monmouth University
USA

Martin Sang-Soo Yeo
Mokwon University
Korea

Fatos Xhafa
Technical University of Catalonia
Spain
Welcome to the 10th FTRA International Conference on Secure and Trust Computing, Data Management, and Applications (STA 2013). The STA 2013 is held in conjunction with the 5th FTRA International Conference on Information Technology Convergence and Services (ITCS-13) and the 3rd International Conference on Intelligent Robotics, Automations, Telecommunication Facilities, and Applications (IRoA 2013) from July 8–10, 2013 at Fukuoka Institute of Technology (FIT), Fukuoka, Japan.

Information technology issue is emerging rapidly as an exciting new paradigm with user-centric environment to provide computing and communication services. In order to realize IT advantages, it requires integrating security and data management to be suitable for future computing environments. However, there are still many problems and major challenges waiting for us to solve such as the security risks in resource sharing, which could occur when data resources are connected and accessed by anyone. Therefore, it is needed to explore more secure and trust and intelligent data management mechanism.

STA 2013 contains high quality research papers submitted by researchers from all over the world. Each submitted paper was peer-reviewed by reviewers who are experts in the subject area of the paper. Based on the review results, the Program Committee accepted 16 papers. For organizing an International Symposium, the support and help of many people is needed. First, we would like to thank all authors for submitting their papers. We also appreciate the support from program committee members and reviewers who carried out the most difficult work of carefully evaluating the submitted papers.

We would like to give special thanks to Prof. James J. (Jong Hyuk) Park, the Steering Committee Chair of STA for his strong encouragement and guidance to organize the conference. We would like to thank STA 2013 General Co-Chairs, Prof. Leonard Barolli, Prof. Mohammad S. Obaidat, Prof. Martin Sang-Soo Yeo, and Prof. Fatos Xhafa for their advices to make possible organization of STA 2013. We also thank the Workshops Chairs, Dr. Neil Y. Yen, Dr. Jin-Mook Kim, Dr. Muhamed Younas, and Dr. Makoto Ikeda for organizing STA 2013 workshops. We would like to express special thanks to FTRA members and the Local Organization Team at FIT for their timely unlimited support.
We hope you will enjoy the conference and readings and have a great time in Fukuoka.

Hiroak Kikuchi
Meiji University
Japan

Young-Gab Kim
Catholic University of Daegu
Korea

Tomoya Enokido
Risho University
Japan

Alfredo Cuzzocrea
ICAR-CNR and University of Calabria
Italy
Organization

**Honorary Chair**
Teruo Shimomura, FIT President, Japan
Makoto Takizawa, Seikei University, Japan

**Steering Chairs**
James J. Park, Seoul National University of Science and Technology, Korea

**General Chairs**
Leonard Barolli, Fukuoka Institute of Technology, Japan
Mohammad S. Obaidat, Monmouth University, USA
Martin Sang-Soo Yeo, Mokwon University, Korea
Fatos Xhafa, Technical University of Catalonia, Spain

**Program Chairs**
Hiroaki Kikuchi, Tokai University, Japan
Young-Gab Kim, Korea University, Korea
Tomoya Enokido, Risho University, Japan
Alfredo Cuzzocrea, ICAR-CNR and University of Calabria, Italy

**Workshop Chairs**
Neil Y. Yen, the University of Aizu, Japan
Jin-Mook Kim, Sunmoon University, Korea
Muhamed Younas, Oxford Brookes University, UK
Makoto Ikeda, Fukuoka Institute of Technology, Japan
Publication Chair
Hwa Young Jeong, Kyung Hee University, Korea

International Advisory Committee
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Hai Jin, Huazhong University of Science and Technology, China
Yanchun Zhang, Victoria University, Australia
Gail-Joon Ahn, Arizona State University, USA
Wanlei Zhou, Deakin University, Australia
Steganos Gritzalis, University of the Aegean, Greece
Hsiao-Hwa Chen, National Sun Yat-Sen University, Taiwan
M. Atiquzzaman, University of Oklahoma, USA
Young-Sik Jeong, Dongguk University, Korea
Feng Bao, Institute of Infocomm Research (I2R), Singapore
Xiaobo Zhou, University of Colorado at Colorado Springs, USA
Tok Wang Ling, National University of Singapore, Singapore
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Minoru Uehara, Toyo University, Japan
Irfan Awan, University of Bradford, UK

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Takuo Nakashima, Tokai University, Japan

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Tao Yang, Fukuoka Institute of Technology, Japan

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Dimitris, Sacharidis, IMIS Athena RC, Greece
Edward Hua, QED Systems, USA
Emmanuelle Anceaume, IRIS/INRS, France
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Jin Li, Guangzhou University, China
Jongsuk Moon, Korea University, Korea
Jose A. Onieva, University of Malaga, Spain
Katerina Doka, National Technical University of Athens, Greece
Le Gruenwald, University of Oklahoma, USA
Ligang He, University of Warwick, UK
Manolis Terrovitis, Institute for the Management of Information Systems, Greece
Markus Aleksy, ABB AG, Germany
Maytham Safar, Kuwait University, Kuwait
Minoru Uehara, Toyo University, Japan
Mohamed Gaber, University of Portsmouth, UK
Motoi Yamagiwa, Toyo University, Japan.
Roberto Caldelli, University of Florence, Italy
Ruben Rios delPozo, University of Malaga, Spain
Ruth Breu, University of Innsbruck, Austria
Ruzhana Ishak, Universiti Teknologi Malaysia, Malaysia
Sherif Sakr, National ICT Australia, Australia
Soon M. Chung, Department of Computer Science and Engineering, Wright State University, USA
Stefanos Gritzalis, University of the Aegean, Greece
Tomoki Yoshihisa, Osaka University, Japan
Vincent Rijmen, TU Graz KULeuven, Belgium
Walter Colin, University of London, UK
Wei Feng Chen, California University of Pennsylvania, USA
Wei Wang, Wang, University of New South Wales, Australia
Wei-Chuen Yau, Multimedia University, Malaysia
Wenny Rahayu, La Trobe University, Australia
Xiaofeng Chen, Xidian University, China
Yuxin Peng, Peking University, China
On behalf of the organizing committees, it is our pleasure to welcome you to the 3rd International Conference on Intelligent Robotics, Automations and Applications (IRoA 2013), which will be held at Fukuoka Institute of Technology (FIT), Fukuoka, Japan on 8–10 July, 2013. IRoA 2013 is hosted by FIT and it is technically sponsored by Future Technology Research Association International (FTRA) and Korea Information Technology Convergence Society (KITCS). We believe the IRoA is a major forum for professors, scientists, professional engineers, and practitioners throughout the world to present the latest research, results, ideas, developments, and applications in all areas of intelligent robotics and automations. Furthermore, we expect that the IRoA 2013 and its publications will be a trigger for further related research and technology improvements in this important subject.

First we would like to thank our Honorary Chairs, Prof. Teruo Shimomura (President of FIT, Japan) and Prof. Makoto Takizawa (Hosei University, Japan) for their kind support for the conference. We also give special thanks to our Steering Committee Chairs: Prof. Leonard Barolli (FIT, Japan) and Prof. James J. Park (Seoul National University of Science and Technology, Korea) for their hard work and their continuous supports. We are very grateful to Prof. Fatos Xhafa (Technical University of Catalonia, Spain) for his full and wholehearted support and for his prestigious invited talk. We would like to thank all our chairs and committees for their great efforts to make IRoA 2013 very successful.

We would like to give special thanks to FIT and especially Mr. Yoji Unoki, Chairman of Board of Trustees of FIT for hosting STA 2013 and for providing the university facilities and his continuous support. We would like to thank Fukuoka Convention Bureau and Fukuoka City for their great support, help, advices, and local arrangement. Finally, we would like to thank the Local Arrangement Team at FIT and the Administration Staff of FIT for their support and for making excellent local arrangement for the conference.
We hope you find IRoA 2013 enjoyable and please let us know any suggestions for improvement in this event and also in next events.

Sang-Soo Yeo  
Mokwon University  
Korea  

Kok-Meng Lee  
Georgia Institute of Technology  
USA  

Hitoshi Kino  
Fukuoka Institute of Technology  
Japan
Message from IRoA 2013 Program Chairs

We would like to welcome you to the 3rd International Conference on Intelligent Robotics, Automations, Telecommunication Facilities, and Applications (IRoA 2013), which will be held at Fukuoka Institute of Technology (FIT), Fukuoka, Japan on 8–10 July, 2013.

IRoA 2013 is focused on the various aspects of advances in intelligent robotics and automations including the latest research, results, ideas, developments, and its applications and provides an opportunity for academic and industry professionals to discuss the latest issues and progress in all areas of intelligent robotics and automations. We expect that the conference and its publications will be a trigger for further related research and technology improvements in this important subject.

We received a lot of paper submissions from many countries. Due to many high quality paper submissions and the lack of space in proceedings, we accepted 30 papers out of 72 submissions after a rigorous peer review process. Each paper was reviewed by at least three reviewers.

Finally, we would like to sincerely thank all authors of submitted papers and all attendees for their contributions and participation. And we would like to give a special thanks to all Track Chairs and Program Committee members for their hard work. We would like to thank the reviewers and organizers who supported this event as a whole and, in particular, helped in the success of IRoA 2013.

Hiroyuki Fujioka
Fukuoka Institute of Technology
Japan

Yong-Ho Seo
Mokwon University
Korea
Organization

Honorary Chair
Teruo Shimomura, FIT President, Japan
Makoto Takizawa, Seikei University, Japan

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James J. Park, Seoul National University of Science and Technology, Korea
Leonard Barolli, Fukuoka Institute of Technology, Japan

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Sang-Soo Yeo, Mokwon University, Korea
Kok-Meng Lee, Georgia Institute of Technology, USA
Hitoshi Kino, Fukuoka Institute of Technology, Japan

Program Chairs
Hiroyuki Fujioka, Fukuoka Institute of Technology, Japan
Yong-Ho Seo, Mokwon University, Korea

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Track 1. Intelligent Robotics
Wada Takahiro, Ritsumeikan University, Japan
Keun-Chang Kwak, Chosun University, Korea

Track 2. Intelligent Perception Systems
Kenji Tahara, Kyushu University, Japan
Ji-Hwan Kim, Sogang University, Korea
Track 3. Automations and Simulation
Fumiaki Takemura, Okinawa National College of Technology, Japan
Giljin Jang, UNIST, Korea

Track 4. Control Systems
Tomonori Kato, Fukuoka Institute of Technology, Japan
Cheong Ghil Kim, Namseoul University, Korea

Track 5. Telecommunication Facilities
Tatsushi Tokuyasu, Fukuoka Institute of Technology, Japan
Kang-Hee Lee, Soongsil University, Korea

Track 6. Smart Space and Context-Awareness
Ken Shimoto, Fukuoka Institute of Technology, Japan
Dong-Han Kim, Kyunghee University, Korea

Track 7. Artificial Intelligence
Tetsuya Morizono, Fukuoka Institute of Technology, Japan
Tae-Woo Han, Woosong University, Korea

Track 8. Manufacturing Techniques and Systems
Takuya Tajima, Fukuoka Institute of Technology, Japan
Se-Jun Park, Mokwon University, Korea

Workshop Chairs
Akio Koyama, Yamagata University, Japan
Yunhui Liu, Chinese University of Hong Kong, China
Honghai Liu, University of Portsmouth, UK

Publication Chair
Hwa Young Jeong, Kyung Hee University, Korea

Publicity Chairs
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Ho-Sub Yoon, ETRI, Korea
Jeong-Sik Park, Mokwon University, Korea

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Sung-Kee Park, KIST, Korea
Tae-Kyu Yang, Mokwon University, Korea

**Local Arrangement Chairs**

Makoto Ikeda, Fukuoka Institute of Technology, Japan
Tao Yang, Fukuoka Institute of Technology, Japan

**Invited Speakers**

Fatos Xhafa, Technical University of Catalonia (Barcelona Tech), Spain

**Program Committee**

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Arijit Bhattacharya, Dublin City University, Ireland
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Asokan Thondiyath, Indian Institute of Technology Madras
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Carlo Menon, Simon Fraser University, Canada
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Chunling Du, Division of Control and Instrumentation, School of Electrical and Electronic Engineering, Singapore
Clarence de Silva, UBC, Canada
Claudio Melchiorri, University of Bologna, Italy
Daizhan Cheng, Academy of Mathematics and Systems Science, China
Dan Zhu, Iowa State University, USA
Daniel Thalmann, EPFL Vrlab, Switzerland
Denis Dochain, Universite catholique de Louvain, Belgium
Dianhui Wang, La Trobe University, Australia
Djamila Ouelhadj, University of Portsmouth, UK
Dongbing Gu, University of Essex, UK
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Erfu Yang, University of Strathclyde, UK
Evangelos Papadopoulos, NTUA, Greece
Fang Tang, California State Polytechnic University, USA
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Frank Allgower, University of Stuttgart, Germany
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Fumiya Iida, Institute of Robotics and Intelligent Systems ETH Zurich, Switzerland
Georg Frey, Saarland University, Germany
George L. Kovacs, Hungarian Academy of Sciences, Hungary
Gerard Mckee, The University of Reading, UK
Gheorghe Lazea, Technical University of Cluj-Napoca, Romania
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Graziano Chesi, University of Hong Kong, Hong Kong
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Gurvinder S. Virk, Massey University, New Zealand
Hairong Qi, University of Tennessee, USA
Helder Araujo, University of Coimbra, Portugal
Helen Ryaciotaki-Boussalis, California State University, Los Angeles, USA
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Hiroyasu Iwata, Waseda University, Japan
Hongbin Zha, Peking University, China
Huei-Yung Lin, National Chung Cheng University, Taiwan
Hung-Yu Wang, National Kaohsiung University of Applied Sciences, Taiwan
Ichiro Sakuma, The University of Tokyo, Japan
Irene Yu-Hua Gu, Chalmers University of Technology, Sweden
Rezia Molfino, Universitadegli Studi di Genova, Italy
Riad I. Hammoud, DynaVox and Mayer-Johnson Innovation Group, USA
Richard J. Duro, Universidade da Coruña, Spain
Robert Babuska, Delft University of Technology, The Netherlands
Rolf Johansson, Lund University, Sweden
Romeo Ortega, LSS Supelec, France
Ruediger Dillmann, University of Karlsruhe, Germany
Ryszard Tadeusiewicz, AGH University of Science and Technology, Poland
Saeid Nahavandi, CISR, New Zealand
Sarath Kodagoda, University of Technology, Sydney, Australia
Sean Mc Loone, National University of Ireland (NUI) Maynooth, Ireland
Selahattin Ozelik, University-Kingsville, USA
Sergej Fatikow, University of Oldenburg, Germany
Seth Hutchinson, University of Illinois, USA
Shu-Ching Chen, Florida International University, USA
Shugen Ma, Ritsumeikan University, Japan
Shuro Nakajima, Chiba Institute of Technology, Japan
Shuzhi Sam Ge, National University of Singapore, Singapore
Simon G. Fabri, University of Malta, Malta
Stjepan Bogdan, University of Zagreb, Faculty of EE&C, Croatia
Tariq Shehab, California State University, Long Beach, USA
Taskin Padir, Worcester Polytechnic Institute, USA
Thira Jearsripongkul, Thammasat University, Thailand
Thomas C. Henderson, University of Utah, USA
Tomonari Furukawa, Virginia Polytechnic Institute and State University, USA
Tong Heng Lee, NUS, Singapore
Tongwen Chen, University of Alberta, Canada
Tsai-Yen Li, National Chengchi University, Taiwan
Uwe R. Zimmer, The Australian National University, Australia
Venketesh N. Dubey, Bournemouth University, UK
Ventzeslav (Venny) Valev, Bulgarian Academy of Sciences, Bulgaria
Wail Gueaieb, University of Ottawa, Canada
Wang Qing-Guo, National University of Singapore, Singapore
Waree Kongprawechnon, Thammasat University, Thailand
Weihua Sheng, Oklahoma State University, USA
Weizhong Dai, Louisiana Tech University, USA
Wen-Hua Chen, Loughborough University, UK
Wladyslaw Homenda, Warsaw University of Technology, Poland
Wolfgang Halang, Fernuniversitaet, Germany
Won-jong Kim, Texas A&M University, USA
Xun W. Xu, University of Auckland, New Zealand
Yang Dai, University of Illinois at Chicago, USA
Yangmin Li, University of Macau, Macao
Yantao Shen, University of Nevada, USA
Yugeng Xi, Shanghai Jiaotong University, China
Yun Wang, University of California, Irvine, USA
Zhijun Yang, University of Edinburgh, UK
Zidong Wang, Brunel University, UK
Zongli Lin, University of Virginia, USA
Vasily Sachnev, The Catholic University of Korea, Korea
Elena Tsomko, Namseoul University, Korea
Jin Young Kim, Kwangwoon University, Korea
Ki-Hyung Kim, Ajou University, Korea
Nammee Moon, Hoseo University, Korea
Taesam Kang, Konkuk University, Korea
Hwa-Jong Kim, Kangwon National University, Korea
Yeonseok Lee, Kunsan National University, Korea
Cheong Ghil Kim, Namseoul University, Korea
Sanghyun Joo, ETRI, Korea
Wei Wei, Xi'an Jiaotong University, China
Message from DMFIT-2013 Workshop Chair

Welcome to the International Workshop on Data Management for Future Information Technology (DMFIT-2013), which will be held from July 8–10, 2013 in FIT, Fukouka, Japan. The main objective of this workshop is to share information on new and innovative research related to advanced technologies and applications in the areas of data management on cloud computing, mobile computing, ubiquitous computing, data mining, and databases. Many advanced techniques and applications in these areas have been developed in the past few years. DMFIT-2013 will bring together researchers and practitioners who are interested in both the technical and applied aspects of advanced techniques and applications on data management for future information technology. Furthermore, we expect that the DMFIT-2013 and its publications will be a trigger for further related research and technology improvements in this important subject.

DMFIT-2013 contains high quality research papers submitted by researchers from all over the world. Each submitted paper was peer-reviewed by reviewers who are experts in the subject area of the paper. Based on the review results, the Program Committee accepted seven papers.

We hope that you will enjoy the technical programs as well as the social activities during DMFIT-2013. We would like to send our sincere appreciation to all of the Organizing and Program Committees who contributed directly to DMFIT-2013. Finally, we specially thank all the authors and participants for their contributions to make this workshop a grand success.

Jun-Hong Shen  
Asia University  
Taiwan

Ming-Shen Jian  
National Formosa University  
Taiwan

Tien-Chi Huang  
National Taichung University of Science and Technology  
Taiwan
The organizing committee of the FTRA International Workshop on Pervasive Services, Systems and Intelligence (PSSI 2013) will like to welcome all of you to join the workshop as well as the FTRA MUE 2013. Advances in Information and Communications Technology (ICT) have presented a dramatic growth in merging the boundaries between physical space and cyberspace, and go further to improve human being’s daily life. One typical instance is the use of smartphone. Modern smartphone is equipped with a variety of sensors that are used to collect activities, locations, and situations of its user continuously and provide immediate helps accordingly. Some commercial products (e.g., smart house, etc.) also demonstrate the feasibility of comprehensive supports by deploying a rapidly growing number of sensors (or intelligent objects) into our living environments. These developments are collectively best characterized as ubiquitous service that promises to enhance awareness of the cyber, physical, and social contexts. As such, researchers (and companies as well) tend to provide tailored and precise solutions (e.g., services, supports, etc.) wherever and whenever human beings are active according to individuals’ contexts. Making technology usable by and useful to, via the ubiquitous services and correlated techniques, human beings in ways that were previously unimaginable has become a challenging issue to explore the picture of technology in the next era. This workshop aims at providing a forum to discuss problems, studies, practices, and issues regarding the emerging trend of pervasive computing. Researchers are encouraged to share achievements, experiments, and ideas with international participants, and furthermore, look forward to map out the research directions and collaboration in the future.

With an amount of submissions (13 in exact), the organizing chairs decided to accept six of them based on the paper quality and the relevancy (acceptance rate at 46%). These papers are from Canada, China, and Taiwan. Each paper was reviewed by at least three program committee members and discussed by the organizing chairs before acceptance. We would like to thank three FTRA Workshop Chair, Young-Gab Kim from Korea University, Korea for the support and coordination. We thank all authors for submitting their works to the workshop.
We also appreciate the program committee members for their efforts in reviewing the papers. Finally, we sincerely welcome all participants to join the discussion during the workshop.

James J. Park
Neil Y. Yen
We are very proud and honored to organize the 2013 International Workshop on Advanced Social Network Technologies (ANST 2013), in conjunction with the 10th FTRA International Conference on Secure and Trust Computing, Data Management, and Applications (STA 2013), in FIT, Fukouka, Japan, July 8–10, 2013.

Social Networks have been applied in various domains. A social network is a social structure made up of a set of actors (such as individuals or organizations) and the dyadic ties between these actors. The social network perspective provides a clear way of analyzing the structure of whole social entities. The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use. The major issue of this workshop is to present novel technologies and ideas for social network analysis, intelligent technologies, data mining, and social network-related researches.

This year, we have received 16 submissions. All manuscripts underwent a rigorous peer-review process with three reviewers per paper. Only seven papers were accepted for presentation and inclusion in the proceedings, comprising a 44% acceptance rate. Thanks to all authors who contributed to the success of this workshop.

Finally, we especially like to thank the organization team of the STA 2013 conference, for their organization of the proceedings, the invitation of valuable speakers, and the social events. The conference and STA 2013 were not been successful without their great contributions.

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Contents

Part I  Information Technology Convergence and Services

Novel Handoff Frequency Algorithms for Vehicular Area Networks . . . 3
Shih-Chang Huang and Yu-Shenq Tzeng

RC4-2S: RC4 Stream Cipher with Two State Tables . . . . . . . . . . 13
Maytham M. Hammood, Kenji Yoshigoe and Ali M. Sagheer

Genetic Algorithm-Based Relocation Scheme in Electric Vehicle
Sharing Systems .................................................. 21
Junghoon Lee and Gyung-Leen Park

Improvement of Wireless LAN Connectivity by Optimizing
Placement of Wireless Access Points  . . . . . . . . . . . . . . . . 29
Taiki Honda and Makoto Ikeda

Performance Comparison of OLSR and AODV Protocols
in a VANET Crossroad Scenario .............................. 37
Evjola Spaho, Makoto Ikeda, Leonard Barolli and Fatos Xhafa

WMN-GA System for Node Placement in WMNs: Effect
of Grid Shape ................................................... 47
Tetsuya Oda, Evjola Spaho, Admir Barolli, Leonard Barolli,
Fatos Xhafa and Makoto Takizawa

DCT-Based Watermarking for Color Images
via Two-Dimensional Linear Discriminant Analysis .......... 57
I-Hui Pan, Ping Sheng Huang and Te-Jen Chang

Human Action Recognition Using Depth Images ............... 67
Chaur-Heh Hsieh, Chin-Pan Huang and Jian Ming Hung
Performance Analysis of OLSR with ETX_ff for Different HELLO Packet Interval in a MANET Testbed
Masahiro Hiyama, Elis Kulla, Makoto Ikeda, Leonard Barolli and Makoto Takizawa

Multi-Flow Traffic Investigation of AODV Considering Routing Control Packets
Elis Kulla, Masahiro Hiyama, Makoto Ikeda, Leonard Barolli, Fatos Xhafa and Makoto Takizawa

An Estimation Method for Amplitude Modification Factor Using Floor Area Ratio in Urban Areas
Kazunori Uchida, Keisuke Shigetomi, Masafumi Takematsu and Junich Honda

A SURF Feature Based Building Recognition System for Distinctive Architectures
Shio-Wen Chen, Yi-Hao Chung, Hsin-Fu Chien and Chueh-Wei Chang

A Kinect-Based System for Golf Beginners’ Training
Yi-Hsuan Lin, Shih-Yu Huang, Kuei-Fang Hsiao, Kuei-Ping Kuo and Li-Tieng Wan

A Hill Climbing Algorithm for Ground Station Scheduling
Fatos Xhafa, Xavier Herrero, Admir Barolli and Makoto Takizawa

A Ferry Dispatching Optimization for Mobile Ad-Hoc Networks Using the Virtual Multiple Message Ferry Backbone Routing Scheme
Chu-Fu Wang and Ya-Chi Yang

A Location-Estimation Experimental Platform Based on Error Propagation for Wireless Sensor Networks
Yih-Shyh Chiou, Sheng-Cheng Yeh and Shang-Hung Wu

Performance Evaluation of WMNs Using Hill Climbing Algorithm Considering Giant Component and Different Distributions
Xinyue Chang, Tetsuya Oda, Evjola Spaho, Makoto Ikeda, Leonard Barolli and Fatos Xhafa
Performance Evaluation of WMNs Using Simulated Annealing Algorithm Considering Different Number Iterations per Phase and Normal Distribution ........................................... 169
Shinji Sakamoto, Tetsuya Oda, Elis Kulla, Makoto Ikeda, Leonard Barolli and Fatos Xhafa

UBMLRSS–Cognitive Financial Information Systems ............ 177
Lidia Ogiela and Marek R. Ogiela

A Framework of Static Analyzer for Taint Analysis of Binary Executable File ................................................................. 185
Young-Hyun Choi, Jae-Won Min, Min-Woo Park, Jung-Ho Eom and Tai-Myoung Chung

An IoT-Based Framework for Supporting Children with Autism Spectrum Disorder .......................................................... 193
Ardiana Sula, Evjola Spaho, Keita Matsuo, Leonard Barolli, Fatos Xhafa and Rozeta Miho

Improvement of Fingerprint Verification by Using the Similarity Distribution ................................................................. 203
Seung-Hoon Chae and Sung Bum Pan

Improvement of Lung Segmentation Using Volume Data and Linear Equation ................................................................. 213
Seung-Hoon Chae, Daesung Moon, Deok Gyu Lee and Sung Bum Pan

WMN-GA System for Node Placement in WMNs: Performance Evaluation for Weibull Distribution of Mesh Clients ........... 223
Admir Barolli, Tetsuya Oda, Fatos Xhafa, Leonard Barolli, Petraq Papajorgji and Makoto Takizawa

Indoor Navigation System for Wheelchair Using Smartphones .... 233
Nattapob Wattanavarangkul and Toshihiko Wakahara

Performance Comparison of Wireless Sensor Networks for Different Sink Speeds ......................................................... 243
Tao Yang, Elis Kulla, Leonard Barolli, Gjergji Mino and Makoto Takizawa

Induction Motor Drive Based Neural Network Direct Torque Control ................................................................. 255
Sy Yi Sim, Wahyu Mulyo Utomo, Zainal Alam Haron, Azuwien Aida Bohari, Nooradzianie Muhd. Zin and Roslina Mat Ariff
Adaptive Keyword Extraction System for the Hierarchical Category Search
Toshitaka Maki and Toshihiko Wakahara

Fuzzy Logic Control Design for Induction Motor Speed Control Improvement Through Field Oriented Control
Roslina Mat Ariff, Dirman Hanafi, Whayu Mulyo Utomo, Kok Boon Ching, Nooradzianie Muhd Zin, Sy Yi Sim and Azuwien Aida Bhohari

Considering Lifetime of Sensors for Clusterhead Selection in WSN Using Fuzzy Logic
Qi Wang, Leonard Barolli, Elis Kulla, Gjergji Mino, Makoto Ikeda and Jiro Iwashige

Speed Control of Permanent Magnet Synchronous Motor Using FOC Neural Network
Nooradzianie Muhd. Zin, Wahyu Mulyo Utomo, Zainal Alam Haron, Azuwien Aida Bohari, Sy Yi Sim and Roslina Mat Ariff

An Interactive Learning System Using Smartphone for Improving Students Learning Motivation
Noriyasu Yamamoto and Toshihiko Wakahara

Design and Implementation of H.264/AVC Reverse Biorthogonal Wavelet-Based Flexible Macroblock Ordering
Jing-Siang Wei, Zeng-Yao Lin and Chian C. Ho

Design and Characteristics of Two-Dimensional Color Code Editor with Dotted Images
Toshihiko Wakahara, Damri Samretwit, Toshitaka Maki and Noriyasu Yamamoto

Studies on Loss Evaluation of Bending in Post Wall Waveguide for Microwave Transmission
Hiroshi Maeda, Kazuya Tomiura, Huili Chen and Kiyotoshi Yasumoto

Resource Management for Hybrid 3.75G UMTS and 4G LTE Cellular Communications
Ben-Jye Chang, Ying-Hsin Liang and Kai-Xiang Cao

Automatic Travel Blog Generator Based on Intelligent Web Platform and Mobile Applications
Yi-Jiu Chen, Wei-Sheng Zeng and Shian-Hua Lin
Thai Wikipedia Link Suggestion Framework .......................... 365
Amon Rungsawang, Sompop Siangkhio, Athasit Surarererk
and Bundit Manaskasemsak

Computing Personalized PageRank Based on Temporal-Biased
Proximity ............................................................. 375
Bundit Manaskasemsak, Pramote Teerasetmanakul, Kankamol Tongtip,
Athanit Surarerks and Amon Rungsawang

KSVTs: Towards Knowledge-Based Self-Adaptive Vehicle
Trajectory Service ..................................................... 387
Jin-Hong Kim and Eun-Seok Lee

Part II Secure and Trust Computing, Data Management,
and Applications

Secure and Reliable Transmission with Cooperative Relays
in Two-Hop Wireless Networks ................................. 397
Yulong Shen, Xiaohong Jiang, Jianfeng Ma and Weisong Shi

RC4 Stream Cipher with a Random Initial State ............... 407
Maytham M. Hammood, Kenji Yoshigoe and Ali M. Sagheer

Improved Redundant Power Consumption Laxity-Based
(IRPCLB) Algorithm for Server Clusters ................... 417
Tomoya Enokido, Ailixier Aikebaier and Makoto Takizawa

Security of Cognitive Information Systems ...................... 427
Marek R. Ogiela and Lidia Ogiela

The Design of a Policy-Based Attack-Resilient Intrusion Tolerant
System ................................................................. 435
Jungmin Lim, Yongjoo Shin, Seokjoo Doo and Hyunsoo Yoon

Algorithms for Batch Scheduling to Maximize the Learning
Profit with Learning Effect and Two Competing Agents ........ 445
Jen-Ya Wang, Yu-Han Shih and Jr-Shian Chen

A Fuzzy-Based System for Evaluation of Trustworthiness
for P2P Communication in JXTA-Overlay ..................... 451
Kouhei Umezaki, Evjola Spaho, Keita Matsuo, Leonard Barolli,
Fatos Xhafa and Jiro Iwashige
Applying Cluster Techniques of Data Mining to Analysis the Game-Based Digital Learning Work .......................... 461
Shu-Ling Shieh, Shu-Fen Chiou, Gwo-Haur Hwang and Ying-Chi Yeh

Design and Implementation of Social Networking System for Small Grouped Campus Networks .......................... 469
Jung Young Kim and Seung-Ho Lim

Effective Searchable Symmetric Encryption System Using Conjunctive Keyword ............................................. 477
Sun-Ho Lee and Im-Yeong Lee

Secure Method for Data Storage and Sharing During Data Outsourcing .......................................................... 485
Sun-Ho Lee, Sung Jong Go and Im-Yeong Lee

Study on Wireless Intrusion Prevention System for Mobile Office ................................................................. 495
Jae Dong Lee, Ji Soo Park and Jong Hyuk Park

A Component Model for Manufacturing System in Cloud Computing .......................................................... 501
HwaYoung Jeong and JongHyuk Park

Traditional Culture Learning System for Korean Folk Literature, Pansori .......................................................... 509
Dong-Keon Kim and Woon-Ho Choi

Auction Based Ticket Selling Schemes with Multiple Demand from the Agents in Static Environment .................. 519
Sajal Mukhopadhyay, D. Ghosh, Narayan C. Debnath and N. RamTeja

A Decision Tree-Based Classification Model for Crime Prediction ................................................................. 531
Aziz Nasridinov, Sun-Young Ihm and Young-Ho Park

Part III Artificial Intelligence Applications for E-Services

Innovation Performance on Digital Versatile Disc (DVD) 3C Patent Pool Formation .............................................. 541
Yu-Hui Wang

Top-k Monitoring Queries for Wireless Sensor Database Systems: Design and Implementation .......................... 547
Chi-Chung Lee and Yang Xia
Protection Management of Enterprise Endpoint Based on the ITIL Management Framework ........................................ 557
Mei-Yu Wu, Shih-Fang Chang and Wei-Chiang Li

Adaptive Content Recommendation by Mobile Apps Mash-Up in the Ubiquitous Environment ........................................ 567
Chih-Kun Ke, Yi-Jen Yeh, Chang-Yu Jen and Ssu-Wei Tang

A Real-Time Indoor Positioning System Based on RFID and Kinect ................................................................. 575
Ching-Sheng Wang, Chien-Liang Chen and You-Ming Guo

Intuitional 3D Museum Navigation System Using Kinect .............. 587
Ching-Sheng Wang, Ding-Jung Chiang and Yu-Chia Wei

Application of QR-Code Steganography Using Data Embedding Technique .......................................................... 597
Wen-Chuan Wu, Zi-Wei Lin and Wei-Teng Wong

Combining FAHP with MDS to Analyze the Key Factors of Different Consumer Groups for Tablet PC Purchasing ............ 607
Chen-Shu Wang, Shiang-Lin Lin and Heng-Li Yang

Game-Based History Ubiquitous Learning Environment Through Cognitive Apprenticeship .................................. 617
Wen-Chih Chang, Chiung-sui Chang, Hsuan-Che Yang and Ming-Ren Jheng

The Behavioral Patterns of an Online Discussion Activity in Business Data Communication Class ............................ 627
Chiu Jui-Yu and Chang Wen-Chih

Integration of a Prototype Strategical Tool on LMS for Concept Learning ............................................................. 635
David Tawei Ku and Chi-Jie Lin

Part IV Advanced Social Network Technologies

Application-Driven Approach for Web Site Development .............. 649
Chun-Hsiung Tseng
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Analysis of the Participants’ Personality for the Contestants</td>
<td></td>
</tr>
<tr>
<td>of the National Skills Competition</td>
<td>659</td>
</tr>
<tr>
<td>Kung-Huang Lin, You-Syun Jheng, Lawrence Y. Deng and Jiung-Yao Huang</td>
<td></td>
</tr>
<tr>
<td>Ontology-Based Multimedia Adaptive Learning System for U-Learning</td>
<td>669</td>
</tr>
<tr>
<td>Lawrence Y. Deng, Yi-Jen Liu, Dong-Liang Lee and Yung-Hui Chen</td>
<td></td>
</tr>
<tr>
<td>The Taguchi System-Neural Network for Dynamic Sensor Product Design</td>
<td>677</td>
</tr>
<tr>
<td>Ching-Lien Huang, Tian-Long John Wan, Lung-Cheng Wang and Chih-Jen Hung</td>
<td></td>
</tr>
<tr>
<td>Using Decision Tree Analysis for Personality to Decisions</td>
<td>683</td>
</tr>
<tr>
<td>of the National Skills Competition Participants</td>
<td></td>
</tr>
<tr>
<td>Dong-Liang Lee, Lawrence Y. Deng, Kung-Huang Lin, You-Syun Jheng,</td>
<td></td>
</tr>
<tr>
<td>Yung-Hui Chen, Chih-Yang Chao and Jiung-Yao Huang</td>
<td></td>
</tr>
<tr>
<td>Intelligent Reminder System of Having Medicine for Chronic Patients</td>
<td>693</td>
</tr>
<tr>
<td>Dong-Liang Lee and Chun-Liang Hsu</td>
<td></td>
</tr>
<tr>
<td>Part V Data Management for Future Information Technology</td>
<td></td>
</tr>
<tr>
<td>A Skewed Spatial Index for Continuous Window Queries in the Wireless Broadcast Environments</td>
<td>707</td>
</tr>
<tr>
<td>Jun-Hong Shen, Ching-Ta Lu, Ming-Shen Jian and Tien-Chi Huang</td>
<td></td>
</tr>
<tr>
<td>Advancing Collaborative Learning with Cloud Service</td>
<td>717</td>
</tr>
<tr>
<td>Yong-Ming Huang, Chia-Sui Wang, Jia-Ze Guo, Huan-Yu Shih and Yong-Sheng Chen</td>
<td></td>
</tr>
<tr>
<td>Using MapReduce Framework for Mining Association Rules</td>
<td>723</td>
</tr>
<tr>
<td>Shih-Ying Chen, Jia-Hong Li, Ke-Chung Lin, Hung-Ming Chen and Tung-Shou Chen</td>
<td></td>
</tr>
<tr>
<td>Cloud Feedback Assistance Based Hybrid Evolution Algorithm for Optimal Data Solution</td>
<td>733</td>
</tr>
<tr>
<td>Ming-Shen Jian, Fu-Jie Jhan, Kuan-Wei Lee and Jun-Hong Shen</td>
<td></td>
</tr>
</tbody>
</table>
Molecular Simulation Methods for Selecting Thrombin-Binding Aptamers ............................................. 743
Jangam Vikram Kumar, Wen-Yih Chen, Jeffrey J. P. Tsai and Wen-Pin Hu

An Efficient Group Key Management Scheme for Web-Based Collaborative Systems .................................... 751
Yung-Feng Lu, Rong-Sheng Wang and Shih-Chun Chou

The Diagnosis of Mental Stress by Using Data Mining Technologies ......................................................... 761
Hsiu-Sen Chiang, Liang-Chi Liu and Chien-Yuan Lai

Part VI Intelligent Agent System and Its Applications

Intelligent Rainfall Monitoring System for Efficient Electric Power Transmission ........................................... 773
Rong-Chi Chang, Teng-Shih Tsai and Leehter Yao

A Computational Data Model of Intelligent Agents with Time-Varying Resources ........................................ 783
Anthony Y. Chang

An Intelligent Energy-Saving Information Interface Agent with Web Service Techniques .............................. 793
Sheng-Yuan Yang, Dong-Liang Lee, Kune-Yao Chen and Chun-Liang Hsu

Part VII Intelligent Robotics, Automations, Telecommunication Facilities, and Applications

3D Trajectory Planning for a 6R Manipulator Robot Using BA and ADAMS ............................................. 807
P. Masajedi, Kourosh Heidari Shirazi and Afshin Ghanbarzadeh

Performance Improvement of Human Detection Using Thermal Imaging Cameras Based on Mahalanobis Distance and Edge Orientation Histogram .................................................. 817
Ahra Jo, Gil-Jin Jang, Yongho Seo and Jeong-Sik Park
Sensibility to Muscular Arrangement of Feedforward Position Control for Non-Pulley-Musculoskeletal System
Hitoshi Kino, Shiro Kikuchi, Yuki Matsutani and Kenji Tahara

Mobile Sensing-Based Localization Method for Illegal Electricity Usage by Using Inspection Robot
Bat-Erdene Byambasuren, Mandakh Oyun-Erdene and Dong-Han Kim

Development Age Groups Estimation Method Using Pressure Sensors Array
Junjiro Hasegawa, Takuya Tajima, Takehiko Abe and Haruhiko Kimura

Bio Rapid Prototyping Project: Development of Spheroid Formation System for Regenerative Medicine
Takeshi Shimoto, Nozomi Hidaka, Hiromichi Sasaki, Koichi Nakayama, Shizuka Akieda, Shuichi Matsuda, Hiromasa Miura and Yukihide Iwamoto

Robot Control Architectures: A Survey
Evjola Spaho, Keita Matsuo, Leonard Barolli and Fatos Xhafa

Experiment Verification of Position Measurement for Underwater Mobile Robot Using Monocular Camera
Natsuki Uechi, Fumiaki Takemura, Kuniaki Kawabata and Shinichi Sagara

Emergency Detection Based on Motion History Image and AdaBoost for an Intelligent Surveillance System
Jun Lee, Jeong-Sik Park and Yong-Ho Seo

Marker Tracking for Indirect Positioning During Fabric Manipulation
Mizuho Shibata

Vision-Based Human Following Method for a Mobile Robot Using Human and Face Detection
Se-Jun Park, Tae-Kyu Yang and Yong-Ho Seo

Precise Location Estimation Method Using a Localization Sensor for Goal Point Tracking of an Indoor Mobile Robot
Se-Jun Park and Tae-Kyu Yang
Motion Capture Based Dual Arm Control of a Humanoid Robot Using Kinect
Kyo-Min Koo, Young Joon Kim and Yong-Ho Seo 913

Scalable Building Facade Recognition and Tracking for Outdoor Augmented Reality
Suwon Lee, Yong-Ho Seo and Hyun S. Yang 923

Head Pose Estimation Based on Image Abstraction for Multiclass Classification
ByungOk Han, Yeong Nam Chae, Yong-Ho Seo and Hyun S. Yang 933

Recovering Human-Like Drawing Order from Static Handwritten Images with Double-Traced Lines
Takayuki Nagoya and Hiroyuki Fujioka 941

Noise Reduction Scheme for Speech Recognition in Mobile Devices
Jeong-Sik Park, Gil-Jin Jang and Ji-Hwan Kim 949

Implementation of a Large-Scale Language Model in a Cloud Environment for Human–Robot Interaction
Dae-Young Jung, Hyuk-Jun Lee, Sung-Yong Park, Myoung-Wan Koo, Ji-Hwan Kim, Jeong-sik Park, Hyung-Bae Jeon and Yun-Keun Lee 957

Speed Control Using a PID Algorithm for an Educational Mobile Robot
Se-Young Jung, Se-Jun Park, Yong-Ho Seo and Tae-Kyu Yang 967

Performance Analysis of Noise Robust Audio Hashing in Music Identification for Entertainment Robot
Namhyun Cho, Donghoon Shin, Donghyun Lee, Kwang-Ho Kim, Jeong-Sik Park, Myoung-Wan Koo and Ji-Hwan Kim 977

Preliminary Experiments of Dynamic Buoyancy Adjusting Device with an Assist Spring
Norimitsu Sakagami, Amira Shazanna Binti Abdul Rahim and Satoshi Ishikawa 985

Optimization of a Cart Capacity Using the Three-Dimensional Single Bin Packing Problem for a Serving Robot
Ara Khil and Kang-Hee Lee 995

A Study on Splitting LPC Synthesis Filter
Kwang-Bock You and Kang-Hee Lee 1003
Teleoperation of a Master–Slave Pneumatic Robot Arm System Over the Internet: Consideration of Delay Between Oregon and Fukuoka
Shunta Honda, Tomonori Kato, Hiromi Masuda and Ittirattana Jullakarn

Fundamental Study of a Virtual Training System for Maxillofacial Palpation
Tatsushi Tokuyasu, Erina Maeda, Takuya Okamoto, Hiromu Akita, Kazuhiko Toshimitsu, Kazutoshi Okamura and Kazunori Yoshiura

Design of a 2-DOF Wearable Mechanism for Support of Human Elbow and Forearm
Tetsuya Morizono and Motoki Suzuki

Variable Quantile Level Based Noise Suppression for Robust Speech Recognition
Kangyeoul Lee, Gil-Jin Jang, Jeong-Sik Park and Ji-Hwan Kim

An Efficient Resource Management Scheme Based on Locality for P2P Overlay Network
Chung-Pyo Hong, Jin-Chun Piao, Cheong-Ghil Kim, Sang-Yeob Na and Tae-Woo Han

Parallel SAD for Fast Dense Disparity Map Using a Shared Memory Programming
Cheong Ghil Kim

A Study on Object Contour Tracking with Large Motion Using Optical Flow and Active Contour Model
Jin-Woo Choi, Taek-Keun Whangbo and Nak-Bin Kim

Erratum to: Information Technology Convergence
James J. (Jong Hyuk) Park, Leonard Barolli, Fatos Xhafa and Hwa Young Jeong

Author Index