2013 IEEE Region 10 **Humanitarian Technology Conference**

(R10-HTC 2013)

Sendai, Miyagi, Japan 26-29 August 2013



IEEE Catalog Number: ISBN:

CFP1334U-POD 978-1-4673-5964-1

OP: Opening Session

Welcome Greeting

Greeting from IEEE

Greetings from Region 10

Welcome from Miyagi

TPC Chair's Message

KS1: Keynote Presentataion 1

Toward Disaster-Resilient Networks - Lessons Learned from Great East Japan Disaster

What is the Role of University in Disaster Response, Recovery and Rehabilitation? -- Focusing on our Disaster Victim Identification Project

Lesson Learned from the Great East Japan Earthquake

AS1: Affinity Group Session

Humanitarian Technology by Women Engineers

Humanitarian Technology: IEEE's perspective

The Great East Japan Earthquake and "Me", as a Media Researcher, a Mother and a Human Being

TS1: Human Assistance Technology

Costs estimation for renewable electricity policies in Japan

Kenji Asano (Central Research Institute of Electric Power Industry, Japan) pp. 1-6

Impedance Control with Automatic Load Regulation for a Twin Belt-Driven Human Training System

Kiyoshi Ohishi (Nagaoka University of Technology, Japan); Yuki Yokokura (Nagaoka University of Technology, Japan); Chowarit Mitsantisuk (Kasetsart University, Thailand)
pp. 7-12

Rehabilitation Database Based on Haptic Signal Processing

Toshiaki Tsuji (Saitama University, Japan); Naoyuki Kurita (Saitama University, Japan); Mitsuyuki Yamada (Saitama University, Japan); Sho Sakaino (Saitama University, Japan); Yasuyoshi Kaneko (Saitama University, Japan) pp. 13-18

Experimental Evaluation for Individual Physical Function of Upper Limb Based on FEMS Theory

Tomoyuki Shimono (Yokohama National University, Japan); Hiromi Ohkubo (Yokohama National University, Japan); Chikara Morito (Yokohama National University, Japan); Yuri Hasegawa (Ushioda General Hospital, Japan); Yoshimi Sakurai (Shonan Fureai Gakuen, Japan); Shinichiro Ishii (Kanagawa University of Human Services, Japan)
pp. 19-22

Position and Force Control of SPM-type High-thrust-force Linear Motor for Assistive Devices

Yasutaka Fujimoto (Yokohama National University, Japan); Takahiro Mikami (Yokohama National University, Japan); Tatsuya Suzuki (Yokohama National University, Japan)
pp. 23-28

TS2: Disaster and Robotics I

COCN (Council on Competitiveness-Nippon) Project on Robot Technology Development and Management for Disaster Response

Hajime Asama (The University of Tokyo, Japan); Satoshi Tadokoro (Tohoku University, Japan); Hideo Setoya (Manufacturing Science Technology Center, Japan) *** B#5

An Introduction to Japanese R&D Activity and Political Direction on Special Environment Robots

Yushi Segawa (Mitsubishi Research Institute, Inc., Japan); Yasuyuki Nanamori (Mitsubishi Research Institute, Japan); Shinichiro Sanji (Mitsubishi Research Institute, Inc., Japan); Takayoshi Kitada (Mitsubishi Research Institute, Inc., Japan); Satoshi Tadokoro (Tohoku University, Japan)
pp. 29-34

Proposals of Disaster Response Robots built in and Institutional Problems solved for Evolution of Promising Unmanned Construction System

Shigeo Kitahara (Kumagai Gumi Co., Ltd., Japan); Chikao Ueki (Kajima Corporation, Japan) pp. 35-40

Priority issues of disaster robotics in Japan

Satoshi Tadokoro (Tohoku University, Japan); Shuji Seki (Morita Holding Corporation, Japan); Hajime Asama (The University of Tokyo, Japan) pp. 41-46

TS3: Medical care in times of disaster, Telemedicine and Medical Technology

Telemedicine with Electric Doctor's Bag and the Quantitative Evaluation of the radial Pulse wave to prevent CardioVascular Event in Sendai Quake

Tomoyuki Yambe (Tohoku University, Japan); Hidekazu Miura (Tohoku University, Japan); Yasuyuki Shiraishi (Tohoku University, Japan); Muneichi Shibata (Miyagi Cardiovascular and Respiratory Center, Japan); Makoto Yoshizawa (Tohoku University, Japan); Norihiro Sugita (Tohoku University, Japan) pp. 47-52

The use of portable ultrasound machine to assess a shelter's environment using venous thromboembolism screening

Muneichi Shibata (Miyagi Cardiovascular and Respiratory Center, Japan); Tomoyuki Yambe (Tohoku University, Japan) pp. 53-56

Disaster Victim Identification Using Dental Records - Experience of the Great East Japan Earthquake

Takafumi Aoki (Tohoku University, Japan); Koichi Ito (Tohoku University, Japan); Shoichiro Aoyama (Tohoku University, Japan); Eiko Kosuge (Shinohara Dental Clinic, Japan)
pp. 57-62

Feature Extraction from Retinal Fundus Image for Early Detection of Diabetic Retinopathy

Syna Sreng (King Mongkut's Institute of Technology Ladkrabang, Thailand); Noppadol Maneerat (King Mongkut's Institute of Technology Ladkrabang, Thailand); Don Isarakorn (King Mongkut's Institute of Technology Ladkrabang, Thailand); Ruttikorn Varakulsiripunth (King Mongkut's Institute of Technology Ladkrabang, Thailand); Bundit Pasaya (King Mongkut's Institute of Technology Ladkrabang, Thailand); Jun-ichi Takada (Tokyo Institute of Technology, Japan); Ronakorn Panjaphongse (Bhumibol Adulyadej Hospital, Thailand) pp. 63-66

Trigger of Economic Reconstruction from the East-Japan Earthquake Disaster

Yukari Shirota (Gakushuin University, Japan); Takako Hashimoto (Chiba University of Commerce, Japan); Tamaki Sakura (Japan Center for Economic Research, Japan) pp. 67-72

PD: Panel Discussion

Humanitarian Technology led by Women Engineers

In modern societies with different problems such as disasters, energy issues and an aging population, developing humanitarian technologies require talents of female researchers and engineers. In this panel discussion, panelists who are conducting/supporting humanitarian research projects will discuss expectations and importance for promoting humanitarian technologies by female researchers and engineers.

Through this activity, we will be able to have a think about future technologies that we have to work on, and motivate ourselves. The activity can be a trigger to start developing new humanitarian technologies as well.

TP1: Poster Session at A102

"Posters of Humanitarian Technologies" and "Posters of Student Branches, Affinity Groups (GOLD, WIE, SIGHT, etc.), and Chapters" are jointly displayed at Room A102. Presenters stand-by during mid-afternoon breaks, Aug. 27 & 28.

Transmission data reduction in bandwidth scarce environment for the earth surface observation from satellites flying in close formation

Haruko Kawahigashi (Mitsubishi Electric Corporation, Japan); Kei Suwa (Mitsubishi Electric Corporation, Japan); Toshio Wakayama (Mitsubishi Electric Corporation, Japan)

pp. 73-78

Selection of Displays Operated Harmlessly to Human Eyes Based on Their Readability

Tetsuya Muraoka (Daiichi Institute of Technology, Japan); Hiroaki Ikeda (IKEDA Technologies, Inc., Japan) pp. 79-84

An Extension of Fill-in-the-blank Problem Function in Java Programming Learning Assistant System

Nobuo Funabiki (Okayama University, Japan); Yousuke Korenaga (Okayama University, Japan); Toru Nakanishi (Okayama University, Japan); Kan Watanabe (Okayama University, Japan) pp. 85-90

Personal identification by ID tagging - A disaster management tool

Jery Althaf (Young India Fellowship, India); Sreevas Sahasranamam (Indian Institute of Management Kozhikode, India); Jewel James (College of Engineering Trivandrum, India) pp. 91-95

An Ontology-Based Multi Agent Automotive Parts Transportation Management System

Areeworn Phutthisathian (King Mongkut's Institute of Technology Ladkrabang, Thailand); Noppadol Maneerat (King Mongkut's Institute of Technology Ladkrabang, Thailand); Ruttikorn Varakulsiripunth (King Mongkut's Institute of Technology Ladkrabang, Thailand); Kaoru Takahashi (Institute of National Colleges of Technology, Thailand); Yasushi Kato (Tsuruoka National College of Technology, Japan)
pp. 96-99

A Practice of PBL Training "Communications in Disaster" for Premedical Students with Twitter

Hidekazu Kaminishi (Dokkyo Medical University, Japan); Nobuhiro Sakata (Dokkyo Medical University, Japan); Masaki Yamashita (Dokkyo Medical University, Japan) pp. 100-105

Prefabricated Supporting Bridging Systems

Toshiaki Ueno (Hitachi Ltd, Japan); Akira Kitajima (Hitachi Ltd, Japan); Tomio Nakamura (Hitachi Ltd, Japan); Takahiro Kawasyukuda (Hitachi Ltd, Japan) pp. 106-109

Toward Dependable Online Peer Assessments

Yasuhiro Fujihara (Hyogo College of Medicine, Japan) pp. 110-111

Initial Field Experiments of Low-Power, End-to-End Reliable Collection Protocol for Wireless Sensor Networks

Makoto Suzuki (The University of Tokyo, Japan); Yasutaka Yamashita (The University of Tokyo, Japan); Ryohei Suzuki (NTT DOCOMO, INC., Japan); Tomohiro Nagata (NTT DOCOMO. INC., Japan); Hiroyuki Morikawa (The University of Tokyo, Japan)
pp. 112-113

Wireless Access Network System controlled via M2M wireless access network for Movable and Deployable Resource Units "B#5

Yoshitaka Shimizu (NTT Network Innovation Laboratories, Japan); Tomoaki Kumagai (NTT Network Innovation Laboratories, Japan)

A Disaster Resilient Image and Video Transmission Scheme based on Movable and Deployable Resource Units ***B#5

Takayuki Nakachi (NTT Network Innovation Laboratories, Japan); Sun Yong Kim (NTT Network Innovation Laboratories, Japan); Tatsuya Fujii (NTT Network Innovation Laboratories, Japan)

Multi-Topology-based simple simulation for large area damaged network "B#5 Shinsuke Koyama (Akita University, Japan); Masashi Hashimoto (Akita University, Japan); Toshikazu Sakano (NTT Network Innovation Laboratories, Japan)

TS4: Agile, Expandable and Robust Mobile Communications

Orange Solar base station program enhancing the deployment of mobile networks in off-grid area ``B#5

Jean-Michel Serre (Orange, Japan); Philippe Tuzzolino (Orange, France); Paul Mesguich (Orange, France); Michel Kirtz (Orange, France); Didier Marquet (Orange, France); Stephane Le Masson (Orange, France); Tomoko Tanaka (Orange, Japan)

An Investigative Study on Correcting the Information Gap in the Republic of Indonesia by Utilizing Information and Communication Technology from Japan

Fumiaki Hiraga (Hitachi High-Technologies Corporation, Japan); Hideki Iida (PT. Hitachi High-Technologies Indonesia, Indonesia); Urip Fanfani (PT. Hitachi High-Technologies Indonesia, Indonesia); Jackson Tandiono (PT. Sky Energy Indonesia, Indonesia) pp. 114-119

Emergency Communication System for Persons with Hearing and Speaking Disabilities and Against a Large-scale Disaster

Kano Sadahiko (Waseda University, Japan); Nakabayashi Hiroshi (NTT DATA Institute of Management Consulting, Japan); Tsukamoto Taishi (NTT Data Daichi Corporation, Japan)
pp. 120-123

Device-centric Approach to Improve Resiliency of Emergency Communication

Martin Macuha (Orange Labs, Japan); Darambazar Amgalan (Orange Labs, Japan); Thomas Derham (Orange Labs, Japan)
pp. 124-129

Offloading of SMS Messages for Cellular Phones by E-Mail Reception Notification via the Internet

Tetsuya Yamaguchi (The University of Tokyo, Japan); Yoshihiro Kawahara (The University of Tokyo, Japan); Tohru Asami (The University of Tokyo, Japan) pp. 130-135

TS5: Smart Usage of Energy

A Proposal of Emergency Microgrid Operation of Distribution Systems after Large Scale Disasters

Hiroumi Saitoh (Tohoku University, Japan); Masanori Abe (Tohoku University, Japan); Wataru Yashima (Tohoku University, Japan)
pp. 136-141

Carbon-hydride Energy Storage System

Hajime Emori (Hitachi Ltd, Japan); Toru Kawamura (Hitachi Ltd, Japan); Takao Ishikawa (Hitachi Ltd, Japan); Tetsuo Takamura (Hitachi Power Solutions Co Ltd, Japan)
pp. 142-147

Distributed Demand Scheduling Method to Reduce Energy Cost in Smart Grid

Akiyuki Imamura (Keio University, Japan); Soushi Yamamoto (Keio University, Japan); Takashi Tazoe (Keio University, Japan); Harunaga Onda (Keio University, Japan); Hidetoshi Takeshita (Keio University, Japan); Satoru Okamoto (Keio University, Japan); Naoaki Yamanaka (Keio University, Japan)
pp. 148-153

Distributed Control Method for Micro Combined Heat and Power System on Logical Token-Ring Model in Real-Time Pricing

Naoki Maruichi (Keio University, Japan); Soushi Yamamoto (Keio University, Japan); Takashi Tazoe (Keio University, Japan); Harunaga Onda (Keio University, Japan); Hidetoshi Takeshita (Keio University, Japan); Satoru Okamoto (Keio University, Japan); Naoaki Yamanaka (Keio University, Japan)
pp. 154-159

TS6: Disaster and Robotics II

The Challenges of the Kesennuma Kizuna Project

Kotaro Ohba (National Institute of Advanced Industrial Science and Technology, Japan); Kazuhiro Kojima (National Institute of Advanced Industrial Science and Technology, Japan); Yoichi Motomura (National Institute of Advanced Industrial Science and Technology, Japan); Tamio Tanikawa (National Institute of Advanced Industrial Science and Technology, Japan); Takeshi Nagami (National Institute of Advanced Industrial Science and Technology, Japan); Isamu Kajitani (National Institute of Advanced Industrial Science and Technology, Japan); Hideki Asoh (National Institute of Advanced Industrial Science and Technology, Japan); Yoshiyuki Kobayashi (National Institute of Advanced Industrial Science and Technology, Japan); Takuichi Nishimura (National Institute of Advanced Industrial Science and Technology, Japan); Yoshifumi Nishida (National Institute of Advanced Industrial Science and Technology, Japan)

Priority Issues of Infrastructure Inspection and Maintenance Robot

Ryohei Takada (Nippon Steel and Sumitomo Metal Corporation & Plant Engineering and Facility Maintenance Center, Japan); Naoki Oishi (Nippon Steel and Sumitomo Metal Corporation, Japan)
pp. 166-171

Employment scheme and industrialization of disaster robots

Shinji Kawatsuma (Japan Atomic Energy Agency, Japan); Takahisa Mano (Manufacturing Science and Technology Center, Japan) pp. 172-175

Research on Standardization, Safety Standards and Competitiveness Enhancement of Special Environment Robots in Japan

Tetsuya Kimura (Nagaoka University of Technology, Japan); Makiko Okamoto (Nagaoka University of Technology, Japan); Koji Oga (Japan Manned Space Systems Corporation, Japan); Shinji Okuda (Environmental Technical Support Network, Japan); Toshihiro Matsuda (Consumer Product Safety Association, Japan); Tsutomu Nagi (Nagi OHS Consultant, Japan); Shoichi Hamada (Japan Robot

Association, Japan); Yoshitada Hata (Japan Robot Association, Japan); Satoshi Tadokoro (Tohoku University, Japan)
pp. 176-181

Using Electromagnetism-Like Algorithm and Genetic Algorithm to Optimize Time of Task Scheduling for Dual Manipulators

Issa Ahmed Abed (Universiti Tenaga Nasional, Malaysia); Khairul Salleh Mohamed Sahari (Universiti Tenaga Nasional, Malaysia); Johnny Koh (Universiti Tenaga Nasional, Malaysia); Sieh Kiong Tiong (Universiti Tenaga Nasional, Malaysia); Jagadeesh Pasupuleti (Universiti Tenaga Nasional, Malaysia)
pp. 182-187

KS2: Keynote Presentataion 2

Developing and Deploying a Reasonable Business Continuity Plan: Lessons Learned from Hurricane Sandy

Disaster Response Robot Quince and Lessons at Fukushima-Daiichi Nuclear Power Plant Accident

Experience of Infrastructure Damage Caused by the Great East Japan Earthquake and Countermeasures against Future Disaster

PS: Panel Session

Principles of a Sustainable Energy System

Future of Renewable Energy in Japan

Technology Needs for Wider Use of Microgrids

TS7: Utilization and Restoration of Communication Services in the Great Earthquake

Problem Analysis and Improvement of Disaster Information Network and System from Experiences of the Great East Japan Earthquake

Yoshitaka Shibata (Iwate Prefectural University, Japan); Noriki Uchida (Saitama Institute of Technology, Japan); Norio Shiratori (Tohoku University, Japan) pp. 188-193

The Great East Japan Earthquake: How Broadcasters Used the Internet - A Review on the Parallel Distribution of Broadcasts "B#5

Seiichi Murakami (NHK Broadcasting Culture Research Institute, Japan)

What We Learned from the Great East Japan Earthquake - Utilizing management issues from Evacuation Centers of Sendai City for improving Disaster Management Plan

Hiroki Kitagawa (Hitachi, Ltd., Japan); Masahiro Akahori (Hitachi, Ltd., Japan); Yukinobu Maruyama (Hitachi, Ltd., Japan); Kaoru Watanabe (Hitachi, Ltd., Japan); Masahiro Takeshima (Hitachi, Ltd., Japan); Tsuyoshi Nagayama (Hitachi, Ltd., Japan)

pp. 194-199

A Rapidly Restorable Phone Service to counter Catastrophic Loss of Telecommunications Facilities

Toshikazu Sakano (NTT Network Innovation Laboratories, Japan); Satoshi Kotabe (NTT Network Innovation Laboratories, Japan); Katsuhiro Sebayashi (NTT Network Innovation Laboratories, Japan); Tetsuro Komukai (NTT Network Innovation Laboratories, Japan); Hirokazu Kubota (Osaka Prefecture University, Japan); Atsushi Takahara (NTT Network Innovation Laboratories, Japan) pp. 200-205

Lessons from The Earthquake through Restoration Activity of NICT for Network Infrastructure

Kentaro Ishizu (National Institute of Information and Communications Technology, Japan); Homare Murakami (National Institute of Information and Communications Technology, Japan); Hiroshi Harada (National Institute of Information and Communications Technology, Japan)
pp. 206-211

TS8: Educational Methodologies

Building resilience through real-life scenario-based technology enhanced learning environment design

Madhumita Bhattacharya (University of South Pacific, Suva, Fiji & Global Association for Educational Technology Research and Development, Canada) pp. 212-214

A Discussion on Introducing Half-Anonymity and Gamification to Improve Students' Motivation and Engagement in Classroom Lectures

Asako Ohno (Osaka Sangyo University, Japan); Takahiro Yamasaki (Osaka Sangyo University, Japan); Kin-ichiroh Tokiwa (Osaka Sangyo University, Japan) pp. 215-220

Estimating Student Persona through Factorization of Learning Portfolio

Phuong Dinh (Ritsumeikan University, Japan); Fumiko Harada (Ritsumeikan University, Japan); Hiromitsu Shimakawa (Ritsumeikan University, Japan) pp. 221-226

Reuse of Mathematical Problems and Answers with E-Learning System

Noriyuki Iwane (Hiroshima City University, Japan); Natsuo Saito (Hiroshima City University, Japan) pp. 227-231

Mobile Testing for Authentic Assessment in the Field:Evaluation from Actual Performances

Yoshimitsu Miyasawa (University of Electro-Communications, Japan); Maomi Uneo (University of Electro-Communications, Japan) pp. 232-237

TS9: Big Data Archive related to Disaster and other Humanitarian Activities

Digital archive, Michinoku Shinrokuden, for the 2011 Tohoku Earthquake and tsunami ™B#5

Fumihiko Imamura (Tohoku University, Japan); Akihiro Shibayama (Tohoku University, Japan); Shosuke Sato (Tohoku University, Japan)

The Possibility of Social Media Analysis for Disaster Management

Takeshi Sakaki (Hottolink Inc. & The University of Tokyo, Japan); Fujio Toriumi (The University of Tokyo, Japan); Kosuke Shinoda (Riken, Japan); Kazuhiro Kazama (Wakayama University, Japan); Satoshi Kurihara (Osaka University, Japan); Yutaka Matsuo (The University of Tokyo, Japan); Koki Uchiyama (Hottolink Inc., Japan); Itsuki Noda (National Institute of Advanced Science and Technology, Japan)

pp. 238-243

Implementation of Biological Diversity Information System for Sustainable Environment in Campus

Riri Fitri Sari (University of Indonesia, Indonesia); Irwan Andrianto (University of Indonesia, Indonesia) pp. 244-248

A Cooking Guidance Function on Android Tablet for Homemade Cooking Assistance System

Yukiko Matsushima (Okayama University, Japan); Nobuo Funabiki (Okayama University, Japan); Tomoya Okada (Okayama University, Japan); Toru Nakanishi (Okayama University, Japan); Kan Watanabe (Okayama University, Japan) pp. 249-254

TP2: Poster Session at A102

"Posters of Humanitarian Technologies" and "Posters of Student Branches, Affinity Groups (GOLD, WIE, SIGHT, etc.), and Chapters" are jointly displayed at Room A102.

Presenters stand-by during mid-afternoon breaks, Aug. 27 & 28.

Please see TP1 on Aug. 27 for the poster listing.

TS10: Endeavors toward Disaster-Resilient Communication Infrastractures

Resilient ICT Research based on Lessons learned from East Japan Great Earthquake ***B#5

Yoshiaki Nemoto (National Institute of Information and Communications Technology, Japan)

R&D on disaster-proof telecommunication network technologies ***B#5 Itsuro Morita (KDDI R&D Laboratories, Japan)

Sustainable Operation Technologies for the Mitigation Information Network in Urban Area

Osamu Mizuno (Kogakuin University, Japan); Akito Takashi (Kogakuin University, Japan); Syou Yamamoto (Kogakuin University, Japan); Koichi Asatani (Kogakuin University, Japan)
pp. 255-260

Dynamic Optical Transport Connection with a 100 Gbit/s Digital Coherent Optical Transponder for Disaster-Resilient Networking

Toshihiko Hirooka (Tohoku University, Japan); Masataka Nakazawa (Tohoku University, Japan); Hirokazu Kubota (Osaka Prefecture University, Japan); Tetsuro Komukai (NTT Network Innovation Laboratories, Japan); Toshikazu Sakano (NTT Network Innovation Laboratories, Japan)

pp. 261-263

IEEE 802.22-based WRAN System for Disaster-Resistant Network Systems

Keigo Hasegawa (Hitachi Kokusai Electric Inc., Japan); Masayuki Takekawa (Hitachi Kokusai Electric Inc., Japan); Keat-Beng Toh (Hitachi Kokusai Electric Inc., Japan); Kei Yanagisawa (Hitachi Kokusai Electric Inc., Japan); Seishi Sasaki (Hitachi Kokusai Electric Inc., Japan); Masahiro Asano (Hitachi Kokusai Electric Inc., Japan) pp. 264-269

An experimental evaluation of dynamic virtualized networking resource control on an evolved mobile core network

Takashi Shimizu (NTT DOCOMO. INC., Japan); Tetsuya Nakamura (NTT DOCOMO. INC., Japan); Shigeru Iwashina (NTT DOCOMO. INC., Japan); Wataru Takita (NTT DOCOMO. INC., Japan); Atsushi Iwata (NEC Corporation, Japan); Michio Kiuchi (NEC Corporation, Japan); Yoshihiro Kubota (FUJITSU Ltd., Japan); Masahiko Ohhashi (FUJITSU Ltd., Japan)
pp. 270-275

TS11: Educational Practices

International Distance Education at CRADLE and Natural Disasters

Akinori Nishihara (Tokyo Institute of Technology, Japan) pp. 276-280

Effects of Blended Lessons of Teaching Method for Information Studies in Which Students Complete the Given Assignments

Isao Miyaji (Okayama University of Science, Japan); Kouji Yoshida (Shounan Institute of Technology, Japan)
pp. 281-286

The Instant Qualitative Feedback System:Practice in a Foreign Language Presentation Course in Japan

Yuichi Ono (University of Tsukuba, Japan); Manabu Ishihara (Oyama National College of Technology, Japan); Mitsuo Yamashiro (Ashikaga Institute of Technology, Japan)
pp. 287-291

How university teachers design their courses

Fumiko Konno (Tohoku University, Japan); Takashi Mitsuishi (Tohoku University, Japan) pp. 292-297

TS12: Information Service for Disaster Warning and Recovering

Lessons Learned And Information Technology Roles In Thailand Floods 2011

Sucharit Koontanakulvong (Chulalongkorn University, Thailand); Paisarn Santitamnanon (Chulalongkorn University, Thailand) pp. 298-302

Community-based Participatory Behavior Understanding using probabilistic human modeling - Challenge in Kesennuma KIZUNA project ***B#5

Yoichi Motomura (National Institute of Advanced Industrial Science and Technology, Japan); Yoshifumi Nishida (National Institute of Advanced Industrial Science and Technology, Japan); Mikiko Oono (National Institute of Advanced Industrial Science and Technology, Japan); Koji Kitamura (National Institute of Advanced Industrial Science and Technology, Japan); Yoshiyuki Kobayashi (National Institute of Advanced Industrial Science and Technology, Japan); Takuichi Nishimura (National

Institute of Advanced Industrial Science and Technology, Japan); Kazuhiro Kojima (National Institute of Advanced Industrial Science and Technology, Japan); Kotaro Ohba (National Institute of Advanced Industrial Science and Technology, Japan)

Toshiba's initiatives to Support Recovery of the Northeast Japan Following the Great East Japan Earthquake ``B#5

Keisuke Omori (Toshiba Corporation, Japan)

Water Resource Cycle Simulation System

Wataru Kawato (Hitachi Ltd, Japan); Junichi Aoki (Hitachi Ltd, Japan); Motohiro Mizuno (Hitachi Ltd, Japan); Tetsu Nishioka (Geosphere Environmental Technology Corporation, Japan)
pp. 303-307

TS13: Sensor Technology for Humanitarian Applications and Systems

Smart Infrastructure Transforming the future of infrastructure through smarter information ```B#5

Kenichi Soga (University of Cambridge, United Kingdom)

e-Health Support System for Adequate Caloric Intake Learning through Simple Meal Survey and Weight Measurement

Shinya Imazu (Nara Institute of Science and Technology, Japan); Teruhiro Mizumoto (Nara Institute of Science and Technology, Japan); Weihua Sun (Osaka University, Japan); Naoki Shibata (Nara Institute of Science and Technology, Japan); Keiichi Yasumoto (Nara Institute of Science and Technology, Japan); Minoru Ito (Nara Institute of Science and Technology, Japan) pp. 308-313

An Internet of Things (IoT) Architecture for Embedded Appliances

Takeshi Yashiro (YRP Ubiquitous Networking Laboratory, Japan); Shinsuke Kobayashi (YRP Ubiquitous Networking Laboratory, Japan); Noboru Koshizuka (The University of Tokyo, Japan); Ken Sakamura (The University of Tokyo, Japan) pp. 314-319

Mapping of aqua constituents using Photonic Crystal

Preeta Sharan (The Oxford College of Engineering, Bangalore, India); Pooja Deshmukh (The Oxford College of Engineering, Bangalore, India); Sandip Kumar Roy (Rolta India Limited, India) pp. 320-325

Evaluation of Memory-Efficient 1-bit Compressed Sensing in Wireless Sensor Networks

Theerat Sakdejayont (The University of Tokyo, Japan); Doohwan Lee (The University of Tokyo, Japan); Yuanyuan Peng (The University of Tokyo, Japan); Yasutaka Yamashita (The University of Tokyo, Japan); Hiroyuki Morikawa (The University of Tokyo, Japan) pp. 326-329

Realizing safe and reliable vital sings monitoring with wireless body area networks

Ichirou Ida (Fujitsu Ltd, Japan); Tatsuya Kikuzuki (Fujitsu Laboratories Ltd., Japan); Teruhisa NInomiya (Fujitsu Laboratories Ltd., Japan); Masafumi Katoh (Fujitsu Laboratories Ltd., Japan); Kazumi Kasai (Fujitsu Laboratories Ltd., Japan); Makoto Yoshida (Fujitsu Laboratories Ltd., Japan); Junichi Takagi (Fujitsu Ltd, Japan)

pp. 330-335

Performance Comparison of Convolutional Codes for UWB-WBAN Applications

Buncha Sansoda (King Mongkut's Institute of Technology Ladkrabang, Thailand); Wannarit Khattiya (King Mongkut's Institute of Technology Ladkrabang, Thailand); Somsak Choomchuay (King Mongkut's Institute of Technology Ladkrabang, Thailand)
pp. 336-339

CS: Closing Session

Greetings from IEEE

Next R10 HTC in Madras

Closing Remarks