

	<p><i>Université de Bourgogne, Dijon France</i></p>
	<p><i>Centre National de la Recherche Scientifique, France</i></p>
	<p><i>Association de Promotion de la Recherche scientifique en système d'Information Multimédia en Emergence, Dijon France</i></p>
	<p><i>Università di Milan Italy</i></p>
	<p><i>Laboratoire LE2I UMR CNRS 5158, Dijon France</i></p>
<p>TDU TOKYO DENKI UNIVERSITY 5 Senju-Asahi-cho, Adachi-ku, Tokyo 120-8551, JAPAN</p>	<p><i>Tokyo Denki University, Tokyo Japan</i></p>
	<p><i>SIGSMM (Special Interest Group on Semantic Multimedia Management)</i></p>
	<p><i>French Chapter of the Special Interest Group on Applied Computing</i></p>
<p>HITACHI Inspire the Next</p>	<p><i>Hitachi Corporation, Tokyo Japan</i></p>

December 2 – 5, 2013
Kyoto Terrsa
Japan

Conference events

Monday December 2, 2013

Conference opening (09:00 – 9:45)

Tuesday December 3, 2013

Keynote 1 (09:00 – 10:00)

Banquet (19:00 – 21:30)

Wednesday December 4, 2013

Keynote 2 (09:00 – 10:00)

Thursday December 5, 2013

Tutorial (09:00 – 10:00)

Foreword

SITIS 2013 The 9th International Conference on Signal Image Technologies and Internet Based Systems

The ninth International Conference on Signal-Image Technology & Internet-Based Systems SITIS'13 includes three tracks SIT, WECA and MIRA. The Web Computing and Application track focuses on issues ranging from information modeling and retrieval techniques to novel concepts, architectures and methodologies for interconnecting information systems. The track on Signal & Image Technologies is aimed at recent developments in digital signal processing, evolutions in audiovisual signal processing, analysis, coding and authentication, and retrieval techniques. The third track, titled "Multimedia Information Retrieval and Application (MIRA)", is focused on emerging modeling, representation and retrieval techniques that take into account the amount, type and diversity of multimedia information accessible in distributed computing environment. In addition to the main tracks, several workshops are included in this your program.

About 350 original submissions were received from around the world. A complete reviewing process was carried out by the different tracks or workshops. Each paper received 2 or 3 reviews, several received up to 5 reviews. Each paper is evaluated based on relevance to track topics, scientific correctness and clarity of presentation. About 150 papers are selected for presentation and publication in the conference proceedings.

Our heartfelt thanks go to those who have greatly contributed in many ways in putting together a fine scientific program and exciting social events for SITIS 2013. We acknowledge the commitment and hard work of the track and workshop chairs who have kept the scientific program in focus and made the discussions interesting and valuable.

We recognize the excellent job done by the program committee members and the extra reviewers. They evaluated all the papers on a very tight schedule. We are grateful for their dedication and contributions. We could not have done it without them. More importantly, we thank the authors for submitting and trusting their work to the conference. Our gratitude to many institutions for their cooperation, support and assistance: the University of Bourgogne, the University of Milan, LE2I laboratory, the Tokyo Denki University.

We thank the General co-chairs, Prof. Ernesto Damiani and Prof. Setsuo Tsuruta for their invaluable and continuing support. Our thanks go to the chair of the local organization committee, Prof. Yoshiyuki Mizuno, and the members of the local organization committee for their help. We express our greatest gratitude to Ms. Yukiko Yamamoto.

We hope that you enjoy the scientific program of SITIS 2013 and that you will take a little time to walk around beautiful Kyoto to bring fond memories back with you. We wish you well.

The steering committee:

Kokou Yetongnon, Albert Dipanda, Ernesto Damiani, Richard Chbeir

Keynotes & Tutorial

Keynote

How can the Big Data Analyses help people affected by the Fukushima Dai-ichi Accident?

by Professor Ryugo S. Hayano

Department of Physics, The University of Tokyo, Japan

Abstract: The Fukushima Dai-ichi nuclear power plant accident dispersed a large amount of radioactive materials, which poses risks of internal and external exposure to the residents. Because the accident broke out in the internet era, large amounts of data were digitally collected. These include radiation-monitor data, tweets, GPS-enabled mobile-phone position data, car navigation data, and so on. Analyses of such “big data” are important to assess the risks of residents and to make plans for countermeasures. On the other hand, there have been many problems regarding the data publication method, and how to archive the collected data. Particular difficulties exist in the handling of personal radiation exposure data, due to the lack of common infrastructure, and more importantly, due to the difficulty in reconciling the data handling with the personal data protection act. I will show several examples of collected and published data, and discuss what we have learned from such data; in particular, it has become clear that the internal exposure level of Fukushima residents is much lower than was initially estimated from the soil contamination level and from the knowledge gained from the Chernobyl accident.



Biography:

Dr. Ryugo Hayano is professor of experimental nuclear physics at the University of Tokyo. His research concerns fundamental symmetries and interactions of nature using the spectroscopy of exotic atoms. He earned his Ph.D from the University of Tokyo in 1979, and he held professorship at the National Laboratory for High Energy Physics (KEK) before returning to Tokyo in 1986. In 2008 he received the Nishina Memorial Prize, the most prestigious physics prize in Japan, for the study of anti protonic helium atoms. He is the spokesperson of ASACUSA collaboration at CERN’s antiproton decelerator facility. Since March 2011, his tweets related to the Fukushima Dai-ichi accident attracted some 150,000 followers; his activities in Fukushima include systematic measurement of school lunch for radio cesium, study of internal exposures using whole body counters, and analyses of GPS-enabled mobile phone data to visualize the flow of people around Fukushima Dai-ichi.

Keynote

Sensing the world: Knowing Events and People's Opinions using Social Media Analysis

by Akiko Murakami

Knowledge and Infrastructure group at IBM Research-Tokyo, Japan

Abstract:

On 11th March 2011, a 9.0-magnitude mega thrust earthquake occurred in the ocean near Japan. This was the first large scale natural disaster in Japan since the broad adoption of social media tools (such as Facebook and Twitter). Since many people posted their own information to their followers in Twitter at that time, we could know what were happening in various areas from the tweets. Some people also posted tweets with their thought. In general, messages posted in Social Media can be considered as a "sensor" of the world, not only sensing events but also sensing peoples' opinions. Using Natural Language Processing, Network Analysis and/or other technologies, we can identify events and peoples' thoughts in the world. In this talk I will show key technologies for social analytics and show some analysis results using these technologies for disaster managements, marketing, etc. I will also show the results of social analytics of candidates'/voters' activities in the Net for the Japan House of Councilors election in July 2013.



Biography:

Akiko Murakami is currently advisory researcher in Knowledge and Infrastructure group at IBM Research-Tokyo. Ms. Murakami joined IBM in 1999 as a researcher after received a Master's degree in Applied Physics from Waseda University. Ms. Murakami's research interests relate to the Natural Language Processing, especially for analysis of documents and activities in communication systems like Social Networking Services. Ms. Murakami also translated several technical books on Natural Language Processing and Information Retrieval into Japanese. Akiko Murakami is currently advisory researcher in Knowledge and Infrastructure

A Hardware/Software Prototyping System for Driving Embedded Image Processing Investigations

by Christophe Bobda and Michael Mefenza

CSCS Department, University of Arkansas, Fayetteville, Ar, USA

Abstract:

The tutorial will present a holistic design and verification framework to investigation of image/video processing in embedded environments, with emphasis on system-on-chip architectures. Starting with an executable specification of a target application, subsequent transformations are performed across different levels of abstraction until the final implementation. The hardware/software partitioning is facilitated through the integration of OpenCV and SystemC at design time and OpenCV and Linux in the run-time environment. We built a modular rapid prototyping camera system, the RazorCam, based on FPGA, which allows complex application to be explored at different abstraction level and evaluated in realistic run-time environment. The platform will be used in this tutorial with a couple of designs to demonstrate the viability of our approach



Biography:

Dr. Christophe Bobda is currently associate professor in the department of computer science and computer Engineering at the University of Arkansas in Fayetteville, Ar. Dr. Bobda received the Licence in mathematics from the University of Yaounde, Cameroon, in 1992, the diploma of computer science and the

Ph.D. degree (with honors) in computer science from the University of Paderborn in Germany in 1999 and 2003 (In the chair of Prof. Franz J. Rammig) respectively. In June 2003 he joined the department of computer science at the University of Erlangen-Nuremberg in Germany as Post doc, under the direction of Prof. Jürgen Teich. Dr. Bobda received the best dissertation award 2003 from the University of Paderborn for his work on synthesis of reconfigurable systems using temporal partitioning and temporal placement. In 2005. Prior to his position at the University of Arkansas, Dr. Bobda was appointed assistant professor at the University of Kaiserslautern. There he set the chair for Self-Organizing Embedded Systems that he led until October 2007. From 2007 to 2010 Dr. Bobda was Professor at the University of Potsdam and leader of the working Group Computer Engineering. Dr. Bobda is Senior Member of the ACM. He is also in the program committee of several conferences (FPL, FPT, RAW, RSP, ERSA, RECOSOC, DRS), the DATE executive committee as proceedings chair (2004, 2005, 2006, 2007, 2008, 2009, 2010). He served as reviewer of several journals (IEEE TC, IEEE TVLSI, Elsevier Journal of Microprocessor and Microsystems, Integration the VLSI Journal) and conferences (DAC, DATE, FPL, FPT, SBCCI, RAW, RSP, ERSA), as guest editor of the Elsevier Journal of Microprocessor and Microsystems and member of the editorial board of the Hindawi International Journal of Reconfigurable Computing. Dr. Bobda is the author of one of the first most comprehensive books in the rapidly growing field of Reconfigurable Computing.

Monday, December 2, 2013

8 :45 – 12 :30

09:00 – 09:45 Opening

10:00 – 10:30 Coffee Break

12:30 – 14:00 Lunch Break

09:00 – 09:45 Opening (Room 1, 2, 3)

Room

Monday, December 2, 2013 --- 10:30-12:30

Room 1
(AV)

Signal and Image Technology (SIT)

S1- SIT

Chair: Andrea Kutics, International Christian University, Japan

38 Fractional Lower Order Moment (FLOM)-Based Adaptive Algorithm with Data-Reusing for Active Noise Control of Impulsive Sources

Muhammad Tahir Akhtar

50 High-Frequency Restoration Using Deep Belief Nets for Super-resolution

Toru Nakashika, Tetsuya Takiguchi, Yasuo Arika

111 Adaptive Multiscale Retinex for Image Contrast Enhancement

Chang-Hsing Lee, Jau-Ling Shih, Cheng-Chang Lien, Chin-Chuan Han

117 Analytical Design and Applications of Double-Directional IIR Filters

Radu Matei

175 A Hybrid Method for High Density Salt-and-Pepper Noise Removal

Kohei Inoue, Kenji Hara, Kiichi Urahama

Room 2
(Seminar)

Workshop on Complex Networks and Their Applications (COMPLEX)

COMPLEX Session S1

Chair: Hocine Cherifi, University of Bourgogne

Structural properties of complex networks (invited talk)

José Fernando Mendes.

54 Evaluating Cerebral Cortex Connectivity with Local Information Algorithm

Giorgio Gronchi, Andrea Guazzini, Franco Bagnoli, Emanuele Massaro

75 Toward Community Dynamic through Interactions Prediction in Complex Networks

Blaise Ngonmang, Emmanuel Viennet

191 Network Analysis Improves Interpretation of Affective Physiological Data

Yuriy Hulovatyy, Sidney D'Mello, Rafael A. Calvo, Tijana Milenkovic

70 Structural Network Properties of Niche-Overlap Graphs

Nayla Sokhn, Richard Baltensperger, Louis-Felix Bersier,

Ulrich-Ultes Nitsche, Jean Hennebert

259 Who Owns Brazil? The Complex Network of Power and Ownership in the Brazilian Market

Alan Freihof Tygel, Daniel Tygel, Maria Luiza Machado Campo

Room 3
(Seminar)

Workshop on Evolutionary Methods for Vision (EVS)

Chairs: Fumiaki Takeda (Kochi University of Technology), Japan and Rubiyah Yusof (Universiti Teknologi), Malaysia

151 Feature Level Fusion of Face and Signature Using a Modified Feature Selection Technique

Suryanti Awang, Rubiyah Yusof, Mohamad Fairol Zamzuri, Reza Arfa

165 Proposal of an Awakening Behavior Detection System for Medical Use and Adaptation for Fluctuation of the Brightness Quantity with Infrared Camera Device Kinect

Fumiaki Takeda

169 The Implementation of Ant Clustering Algorithm (ACA) in Clustering and Classifying the Tropical Wood Species

Azlin Ahmad, Rubiyah Yusof

178 Global Path Planning for Autonomous Mobile Robot Using Genetic Algorithm

Masoud Samadi, Mohd Fauzi Othman

197 Stereo Image Sequence Coding Based on Phase Correlation Disparity Estimation

Wei-Ming Chen, Cheng-Chi Chiang, Ping-Hsiang Huang

231 Tropical Wood Species Recognition System Based on

Gabor Filter as Image Multiplier

Rubiyah Yusof, Nenny Ruthfalydia Rosli

14 :00 – 18 :30

16:00 – 16:30 Coffee Break

Room

Monday, December 2, 2013 --- 14:00-16:00

Room 1
(AV)

Signal and Image Technology (SIT)

SIT Session S2

Chair: Ernesto Damiani, Università degli Studi di Milano, Italy

36 Segmentation Techniques for Handwritten Text Documents Recognition

Subhash Panwar, Neeta Nain

37 Handwritten Text Recognition for Devanagari Script

Deepti Khanduja, Neeta Nain

72 Studies on the Effectiveness of Multispectral Images for Face Recognition:

Comparative Studies and New Approaches

Hamdi Jamel Bouchech, Sebti Foufou, Andreas Koschan, Mongi Abidi

97 A FCM and SURF Based Algorithm for Segmentation of Multispectral Face Images

Ahmed Ben Saïd, Sebti Foufou, Mongi Abidi

105 Two-Stage Recognition for Printed Thai and English Characters

Using Nearest Neighbor and Support Vector Machine

Chayut Wiwatcharakoses, Karn Patanukhom

201 Urban Road Network Extraction Based on Zebra Crossing Detection from a Very High Resolution RGB Aerial Image and DSM Data

Darlis Herumurti, Keiichi Uchimura, Gou Koutaki, Takumi Uemura

Room 2
(Seminar)

**Workshop on Complex Networks and Their Applications (COMPLEX)
COMPLEX Session S2**

Chair: Kathy Horadam, RMIT University, Australia

110 Information Diffusion on Twitter: Everyone Has Its Chance, But All Chances Are Not Equal

Cazabet Remy, Nargis Pervin, Fujio Toriumi, Hideaki Takeda

119 Ranking Twitter Influence by Combining Network Centrality and Influence Observables in an Evolutionary Model

D. Simmie, M.G. Vigliotti, C. Hankin

251 Convince a Dozen More and Succeed--The Influence in Multi-layered Social Networks

Radoslaw Michalski, Przemyslaw Kazienko, Jaroslaw Jankowski

171 Modeling Multi-state Diffusion Process in Complex Networks: Theory and Applications

Yishi Lin, John C.S. Lui, Kyomin Jung, Sungsu Lim

264 Rumor Dynamics and Inoculation of Nodes in Weighted Scale Free Networks with Degree-Degree Correlation

Anurag Singh, Yatindra Nath Singh

44 Network Parameters in Practice: A Case Study Using the Target Set Selection Problem

Callum Lowcay, Stephen Marsland, Catherine McCartin

Room 3
(Seminar)

Multimedia Information Retrieval and Applications (MIRA)

Chair: Yuichi Nakamura, Kyoto University, Japan

35 Query by Humming by Using Scaled Dynamic Time Warping

Yunji Kim, Cheong Hee Park

83 An Estimator for Rating Video Contents on the Basis of a Viewer's Behavior in Typical Home Environments

Masaki Takahashi, Simon Clippingdale, Makoto Okuda, Yuko Yamanouchi, Masahide Naemura, Masahiro Shibata

89 Event Detection and Recognition Using HMM with Whistle Sounds

Hiroki Itoh, Tetsuya Takiguchi, Yasuo Arika

90 Secret Hiding Mechanism Using QR Barcode

Pei-Yu Lin, Yi-Hui Chen, Eric Jui-Lin Lu, Ping-Jung Chen

195 Fast JPEG Image Retrieval Based on AC Huffman Tables

Gerald Schaefer, David Edmundson, Yoshitaka Sakurai

Room

Monday, December 2, 2013 --- 16:30-18:30

Signal and Image Technology (SIT)

SIT Session S3

Chair: Albert Dipanda, University of Bourgogne, France

11 Analysis of Estimation Bias for Direct Frequency Estimators of Complex Sinusoid

Jan-Ray Liao, Shyng Lo

**Room 1
(AV)**

46 Multiple-Scattering Optical Tomography with Layered Material

Toru Tamaki, Bingzhi Yuan, Bisser Raytchev, Kazufumi Kaneda, Yasuhiro Mukaigawa

56 On a Shape Adaptive Image Ray Transform

Ah-Reum Oh, Mark S. Nixon

187 Proportional Image Enlargement Using Combinations of Scaling and Carving Method

I. Komang Somawirata, Keiichi Uchimura, Gou Koutaki

Workshop on Complex Networks and Their Applications (COMPLEX)

COMPLEX Session S3

Chair: Giorgio Fagiolo, Sant'Anna School of Advanced Studies, Italy

66 Economic Networks In and Out of Equilibrium

Tiziano Squartini, Diego Garlaschelli

33 Migration and Trade: A Complex-Network Approach

Giorgio Fagiolo, Marina Mastrorillo

108 Border Sensitive Centralities in Patent Citation Networks Using Asymmetric Random Walks

Greg Morrison, Eleftherios Giovanis, Fabio Pammolli, Massimo Riccoboni

**Room 2
(Seminar)**

230 The Relation between Global Migration and Trade Networks

Paolo Sgrignoli, Rodolfo Metulini, Stefano Schiavo, Massimo Riccoboni

173 Connectivity and Systemic Risk in the Brazilian National Payments System

Rodrigo César de Castro Miranda, Sergio Rubens Stancato de Souza, Benjamin Miranda Tabak

107 Clustering of Japanese Stock Returns by Recursive Modularity Maximization

Takashi Isogai

Workshop on Colour and Multispectral Imaging (COMI)

Chair: Pierre Gouton, University of Bourgogne, France

10 Achromatic Induction: A Variational Interpretation of Rudd-Zemach's Edge Integration Model

Edoardo Provenzi

**Room 3
(Seminar)**

101 Accurate Wiener Estimation by Constructing a Similar Training Set Based on Spectral Correlation

Ji-Hoon Yoo, Ho-Gun Ha, Wang-Jun Kyung, Yeong-Ho Ha

296 Estimation of Two Illuminant Spectral Power Distributions from Highlights of Overlapping Illuminants

Nguyen Thuc Dieu Hang, Takahiko Horiuchi, Keita Hirai, Shoji Tominaga

300 An LED-Based Spectral Imaging System for Surface Reflectance and Normal Estimation

Keita Hirai, Tetsushi Tanimoto, Kazuya Yamamoto, Takahiko Horiuchi, Sho Tominaga

302 Combining Pixel- and Object-Based Approaches for Multispectral Image Classification Using Dempster-Shafer Theory

Youssef Brik, Nabil Zerrouki, Djamel Bouchaffra

Tuesday, December 3, 2013

08:45 – 12 :30

09:00 – 10:00 Keynote

10:00 – 10:30 Coffee break

12:30 – 14:00 Lunch Break

9:00 -10:00 Keynote I (Room 1, 2, 3)

***Sensing the world: Knowing Events and People's Opinions
using Social Media Analysis***

by Akiko Murakami

Knowledge and Infrastructure group

IBM Research-Tokyo, Japan

Room

Tuesday, December 2, 2013 --- 10:30-12:30

**Room 1
(AV)**

Web Computing and Applications (WECA)

WECA Session S1

Chair: Richard Chbeir, University of Pau and Adour Countries, France

93 A Novel Challenge into Multimedia Cultural Heritage: An Integrated Approach to Support Cultural Information Enrichment

Angelo Chianese, Fiammetta Marulli, Francesco Piccialli, Isabella Valente

96 Pattern-Based Model Checking for Dynamic Analysis of Workflow Processes with Temporal Constraints

Yanhua Du, Wending Zhang, Wei Tan

152 Unsupervised Knowledge Structuring: Application of Infinite Relational Models to the FCA Visualization

Fumiko Kano Glückstad, Tue Herlau, Mikkel N. Schmidt, Morten Mørup

202 Semantic Keyword Selection for Automatic Video Annotation

Ali Shariq Imran, Laksmita Rahadiani, Faouzi Alaya Cheikh,

Sule Yildirim Yayilgan

282 Toward Enhancing Web Accessibility for Blind Users through the Semantic Web

Bernard Semaan, Joe Tekli, Youssef Bou Issa, Gilbert Tekli,

Richard Chbeir

**Room 2
(Seminar)**

Workshop on Image/Video Mediated Interactive Systems and Environment (IVISE)

IVISE Session S1

Chair: Takafumi Koike, Hosei University, Japan

326 An Automated Recognition Technique for Lung Vessel Tree Using Chest Multi-slice CT Images

Hiroshi Hanaizumi

341 Real Time Displacement Measurement of Lattice Pattern Using High Speed Camera

Yasushi Niitsu, Takaaki Iizuka, Osamu Furuya

327 Super-resolution with Adaptive Pixel Weighting Scheme and Its Application to Super-resolved Free-Viewpoint Image Synthesis

Koichi Hamada, Ryo Nakashima, Keita Takahashi, Takeshi Naemura

303 Analysis and Modelling of Affective Japanese Sitting Postures

Akito Michishita, Taro Naito, Tatsuya Shibata

Workshop on Situation Aware Computing (SACOM)
SACOM Session S1

Chair: TBA

8 Japanese Ellipsis Resolution in "A NO B" Noun Phrases for Colloquial Inquiry Text Using Latent Topic Models

Harada Tomohiko, Suzuki Nobuo, Tsuda Kazuhiko

277 High Precision Credibility Analysis of Information on Twitter

Yoshimi Namihira, Naomichi Segawa, Yukino Ikegami, Kenta Kawai, Takashi Kawabe, Setsuo Tsuruta

128 Applying Context Respectful Summarization to Counseling Agent for the Japanese

Tetsuo Shinozaki, Yukino Ikegami, Estelle Bissay, Setsuo Tsuruta

306 Development of a System to Raise Awareness of Hand Hygiene in Various Environments

Toshiko Asai, Akinori Kanazawa, Hidehiko Hayashi, Akinori Minazuki

67 Simulation of the Change Acceptance

Takao Nomakuchi, Hiroshi Kuroki, Masakazu Takahashi

334 Analyzing Supermarket Shopping Paths from Indirect Observation and Simulation Study

Masaki Kitazawa, Takashi Yamada, Masakazu Takahashi, Takao Terano

Room 3
(Seminar)

14 :00 – 18 :30

16:00 – 16:30 *Coffee Break*

Room

Tuesday, December 2, 2013 --- 14:00-16:00

Signal and Image Technology (SIT)

SIT Session S4

Chair: Pierre Gouton, University of Bourgogne, France

32 Design of a Stereoscopic 3D Video Processing System Based on FPGA 3D Formatter in Case of FPR

Radosveta Sokullu, Mutlu Aydin

41 Image Reconstruction from Local Binary Patterns

B.M. Waller, M.S. Nixon, J.N. Carter

211 DCT Based Blur Type Detection

Sina Firouzi, Chris Joslin

294 A Structured Light System Encoding for an Uncalibrated 3D Reconstruction Based on Evolutionary Algorithms

Claire Bourgeois-République, Albert Dipanda, Alain Koch

Room 1
(AV)

Workshop on Complex Networks and Their Applications (COMPLEX)

COMPLEX Session S4

Chair: Massimo Riccaboni, IMT School for Advanced Studies, Italy

24 Demographic and Structural Characteristics to Rationalize Link Formation in Online Social Networks

Muhammad Qasim Pasta, Zohaib Jan, Faraz Zaidi, Céline Rozenblat

94 Missing Links in Multiple Trade Networks

Rachele Foschi, Massimo Riccaboni, Stefano Schiavo

219 Generative Growth Model for Power Grids

Deepjyoti Deka, Sriram Vishwanath

45 Constrained Switching in Graphs: A Constructive Proof

Callum Lowcay, Stephen Marsland, Catherine McCartin

77 Motifs in Directed Acyclic Networks

C.J. Carstens

49 Influence Neighbourhoods in CiteSeer: A Case Study

J. Jeffers, K.J. Horadam, C.J. Carstens, A. Rao, S. Boztas

Room 2
(Seminar)

Room 3

(Seminar)

Workshop on Situation Aware Computing (SACOM)

SACOM Session S2

Chair: TBA

142 Text Mining for the Verification of Scientific Effectiveness of Drugs

Takashi Ikoma, Yoshikatsu Fujita, Kazuhiko Tsuda

323 Content Repurposing Platform Utilizing Metadata Extracted from Rich Media

Go Kojima

182 Efficient Query Processing of Semantic Data Using Graph Contraction on RDBMS

Akira Hayakawa, Hiroyasu Nishiyama

221 Kernel Nonnegative Matrix Factorization with Constraint Increasing the Discriminability of Two Classes for the EEG Feature Extraction

Motoki Sakai

225 Development of Lead System for ECG-Derived Respiration Aimed Detection of Obstructive Sleep Apnea Syndrome

Motoki Sakai, Xin Zhu, Yuki Yoshida, Daming Wei

Room

Tuesday, December 2, 2013 --- 16:30-18:30

Room 1
(AV)

Signal and Image Technology (SIT)

SIT Session S5

Chair: Andrea Kutics, International Christian University, Japan

71 Reconstruction of Undersampled Atomic Force Microscopy

Images: Interpolation versus Basis Pursuit

T.L. Jensen, T. Arildsen, Jan Østergaard, T. Jensen

141 Improving Speaker Verification Robustness by Front-End Diversity and Score Level Fusion

Nassim Asbai, Messaoud Bengherabi, Abderrahmane Amrouche, Farid Harizi

163 Adaptive Segmentation of Vessels from Coronary Angiograms Using Multi-scale Filtering

Ying-Che Tsai, Hsi-Jian Lee, Michael Yu-Chih Chen

Room 2
(Seminar)

Workshop on Complex Networks and Their Applications (COMPLEX)

COMPLEX Session S5

Chair: José Fernabdo Mendes, Universidad de Aveiro, Portugal

199 Interdependent Spatially Embedded Networks: Dynamics at Percolation Threshold

Michael M. Danziger, Amir Bashan, Yehiel Berezin, Shlomo Havlin

220 Reliability Analysis of Interdependent Networks Using Percolation Theory

Qiong Zhang, Daqing Li, Rui Kang, Enrico Zio, Peng Zhang

30 Overload Network Failures: An Approach from the Random-Walk Model

Shogo Mizutaka, Kousuke Yakubo

176 Ergodic Properties of Urban Street Networks in the UK

A. Paolo Masucci, Kiril Stanilov, Elsa Arcaute, Erez Hatna, Michael Batty

122 Determining and Understanding Dynamically Important Differences between Complex Networks Using Reliability-Induced Structural Motifs

Stephen Eubank, Mina Youssef, Yasamin Khorramzadeh

64 Analysis on Critical Nodes in Controlling Complex Networks Using Dominating Sets

Jose C. Nacher, Tatsuya Akutsu

Workshop on Data-Driven Process Discovery and Analysis (SIMPDA)

Chair: TBA

63 Business Process Discovery by Using Process Skeletonization

Michiharu Kudo, Ai Ishida, Naoto Sato

Room 3
(Seminar)

- 115 Business Process Analysis and Real-World Application Scenarios**
Michiharu Kudo, Takahide Nogayama, Ai Ishida, Mari Abe
- 125 Confidence-Aware Sequence Alignment for Process Diagnostics**
Eren Esgin, Pinar Karagoz
- 162 Using Value Network Analysis to Support Data Driven Decision Making in Urban Planning**
Cristina Martelli, Emanuele Bellini
- 309 SPADE: A Framework for After-Disaster Adaptive Recovery Processes**
Ernesto Damiani, Fulvio Frati, Babiga Birregah

Wednesday, December 4, 2013

8 :45 – 12 :30

09:00 – 10:00 Keynote
10:00 – 10:30 Coffee break

9:00 -10:00 Keynote 2 (Room 1, 2, 3)
How can the Big Data Analyses help people affected by the Fukushima Dai-ichi Accident?
by Professor Ryugo S. Hayano
Department of Physics, The University of Tokyo, Japan

Room

Wednesday, December 4, 2013 --- 10:30-12:30

Room 1
(AV)

- Signal and Image Technology (SIT)**
SIT Session S6
Chair: Albert Dipanda, University of Bourgogne, France
- 39 Automatic Extraction of Semantic Action Features**
Tran Thang Thanh, Fan Chen, Kazunori Kotani, Bac Le
- 65 Measurement of Size and Distance of Objects Using Mobile Devices**
Suraphol Laotrakunchai, Akarapas Wongkaew, Karn Patanukhom
- 136 A Negative Sample Image Selection Method Referring to Semantic Hierarchical Structure for Image Annotation**
Shan-Bin Chan, Hayato Yamana, Shin'ichi Satoh
- 213 A New Image Sharing Scheme for Internet Applications in Adverse Environments**
Chin-Pan Huang, Ping S. Huang, Shih-Yu Huang
- 247 Identity Recognition through Human Gaze Tracking**
Ignazio Infantino, Giuseppe Scardino, Filippo Vella
- 262 Internet-Vision Based Vehicle Model Query System Using Eigenfaces and Pyramid of Histogram of Oriented Gradients**
Thitiphat Anakavej, Aram Kawewong, Karn Patanukhom

Room 2
(Seminar)

- Workshop on Resilient Internet-Based Systems (REIS)**
REIS Session S1
Chair: Yoshiyuki Mizuno, Kyoto Women's University, Japan
(Session merged with REIS session S2, check with workshop chairs)
- 154 Development of Real-Time Damage Estimation System for Embankment Using Earthquake Early Warning**
Tsuneo Ohsumi
- 156 Evacuation Guidance System Using Everyday Use Smartphones**
Takuya Wada, Tomoichi Takahashi
- 242 A Wireless LAN Usage Trends Survey on Campus for Evacuation Planning**
Kensuke Miyashita
- 252 Road Distance Traveled by Vehicles Following the 2011 Tohoku Earthquake, Calculated by G-BOOK Telematics Data**
Hayato Komori, Noriaki Endo

Workshop on Social Media Utilization (SMUE)

Chair: Andrea Kutics, International Christian University, Japan

7 "Shin-hanga" Filter with Improved Contour Lines and Gradation

Ryo Oami, Andrea Kutics, Akihiko Nakagawa, Satoshi Toyosawa

193 Extracting Conditional Collocations

Takumi Sonoda, Takao Miura

**Room 3
(Seminar)**

274 Simple Example: Clustering Images Using Expectation Maximization

Kurie Nakamura, Andrea Kutics, Akihiko Nakagawa

313 Exploring Social Cognition Related to Privacy Settings in SNS Usage

Miyuki Onuma, Atsushi Kimura, Naoki Mukawa

14 :00 – 18 :30

16:00 – 16:30 Coffee Break

Room

Wednesday, December 4, 2013 --- 14:00-16:00

**Room 1
(AV)**

Web Computing and Applications (WECA)

WECA Session S2

Chair: Gayo Diallo, University of Bordeaux, France

146 Efficient Dynamic Service Provisioning over Distributed Resources Using Chord

Dibyanshu Jaiswal, Sujoy Mistry, Arijit Mukherjee, Nandini Mukherjee

174 Web-Based QoE Measurement Framework

Wu-Hsiao Hsu, Sheng-Cheng Yeh, Yuh-Pyng Shieh, Chaur-Heh Hsieh

184 A Cloud Service for End-User Participation Concerning the Internet of Things

Colin Atkins, Keiichi Koyanagi, Takeshi Tsuchiya, Tadashi Miyosawa, Hiro Hirose, Hiroaki Sawano

**Room 2
(Seminar)**

Workshop on Image/Video Mediated Interactive Systems and Environment (IVISE)

IVISE Session S2

Atsuo Yoshitaka, Japan Advanced Institute of Science and Technology (JAIST), Japan

328 Image Tracking Based Measuring System for Adaptive English Learning

Makoto Shishido

298 Context-Aware Recommendation System Using Content Based Image Retrieval with Dynamic Context Considered

Yuta Miyazawa, Yukiko Yamamoto, Takashi Kawabe

324 SNAPPER: Fashion Coordinate Image Retrieval System

Shinya Miura, Toshihiko Yamasaki, Kiyoharu Aizawa

325 A Tracking Method for 2D Canvas in MR-Based Interactive Painting System

Sandy Martedi, Mai Otsuki, Hideo Saito, Maki Sugimoto, Asako Kimura, Fumihisa Shibata

322 Magrid Surface: An Interactive Display That Varies the Information by an Attached Magnetic Object

Yasushi Hamamura, Takuma Tanaka, Mitsunori Matsushita

261 Analysis and Design of Personal Health Record Management System

Atsuo Yoshitaka, Shinobu Chujyou, Hiroshi Kato

Workshop on Cultural Information Systems (CIS)

CIS Session S1

Chair: Emanuele Bellini, University of Florence, Italy

161 "Once Upon a Time": A Proof of Concept Augmented Reality Collaborative Mobile Application to Discover City Heritage

Alessandro Bellini, Cinzia Luddi, Simone Naldini, Carlo Ghetti, Emanuele Bellini, Giovanni Bergamin

166 Project for the Cataloguing of the Antique Moulds of the Ginori Factory at Doccia

Rita Balleri, Lucia Ciofi, Sergio Di_Tondo, Monica Gherardelli, Giulia Adembri

216 Digital Archive and Exhibiting Methods of a Buddhist Ceremonial Procession

Asako Soga, Yusuke Niwa, Masahito Shiba, Yoshihiro Okada

99 A Stereoscopic CG System with Motion Parallax and Its Digital Contents for Science Museums

Shinji Mizuno, Mami Tsukada, Yuto Uehara

338 Making a Hands-On Display with Augmented Reality Work at a Science Museum

Toru B. Takahashi, Satoshi Takahashi, Fusako Kusunoki, Takao Terano, Shigenori Inagaki

**Room 3
(Seminar)**

Room

Wednesday, December 4, 2013 --- 16:30-18:30

Workshop on Adaptability and Personalization (ADAP)

Chair: Rainer Knauf, Ilmenau University of Technology, Germany

4 Refinement of Adaptivity by Reflection

Klaus P. Jantke, Hans-Rainer Beick, Yuriy Brovko, Sebastian Drefahl

25 An Adaptive System for Optimal Matches between Human Needs and Offers

Takashi Kawabe, Yukiko Yamamoto, Yoshiyuki Mizuno, Yoshitaka Sakurai, Rainer Knauf

26 Optimizing University Curricula through Correlation Analysis

Rainer Knauf, Yukiko Yamamoto, Yoshitaka Sakurai, Kinshuk

148 Autonomous Distributed GA for Solving Real-Time Combinatorial Problems

Yuuta Kobayashi, Masaki Suzuki, Setsuo Tsuruta, Yoshitaka Sakurai

160 A Method to Manage the Precision Difference between Items and Profiles: In a Context of Content-Based Recommender System and Vector Space Model

David Werner, Christophe Cruz

265 Adaptive Behavior with User Modeling and Storyboarding in Serious Games

Sebastian Arnold, Jun Fujima, Andreas Karsten, Harald Simeit

340 Intelligent Route Optimization Technology by Case Based GA

Takaaki Motomura, Masaki Suzuki, Setsuo Tsuruta, Yoshitaka Sakurai

**Room 1
(AV)**

Workshop on Resilient Internet-Based Systems (REIS)

REIS Session S2

Chair: Shinji Shimojo, Osaka University, Japan

(Session merged with REIS session S1, check with workshop chairs)

180 Emulation-Based ICT System Resiliency Verification for Disaster Situations

Shingo Yasuda, Kunio Akashi, Toshiyuki Miyachi, Razvan Beuran, Yoshiki Makino, Tomoya Inoue, Shinsuke Miwa, Yoichi Shinoda

181 Improvement of Network/Service Resiliency with a Movable and Deployable ICT Resource Unit

Toshikazu Sakano, Satoshi Kootabe, Katsuhiko Sebayashi, Tetsuro Komukai, Atsushi Takahara

318 Examples of Disaster Recovery Activities Using Information and Communication Technology in Japan

Naoto Matsumoto, Shunsuke Fujieda, Kensuke Miyashita, Takashi Yamanoue

**Room 2
(Seminar)**

343 A Mail Transfer System Selectively Restricting a Huge Amount of E-Mails
*Yoshiharu Tsuzaki, Ryosuke Matsumoto, Daisuke Kotani,
Shuichi Miyazaki, Yasuo Okabe*

CIS Session S2

Chair: Shigeki Yokoi, Nagoya University, Japan

52 An Exploration of Protecting Local Culture via Content Curation in Local Online Museum

Binyue Cui, Wanzhao Wang, Wei Zhou, Shigeki Yokoi

198 Boosting Regional Vitality with Information and Communication Technology

Mana Fukuyasu, Takami Yasuda, Masahiro Ura, Mamoru Endo, Masashi Yamada, Shinya Miyazaki

283 The Japanese OTAKUs' One Month Activity Just after the 3.11 Earthquake

Keitaro Okuno

6 SmARTweet: A Location-Based Smart Application for Exhibits and Museums

Angelo Chianese, Fiammetta Marulli, Vincenzo Moscato, Francesco Piccia

149 Tablet VR-Learning System: Chemical Laboratory Experience System

Kyosuke Uchiyama, Kenji Funahashi

**Room 3
(Seminar)**

Thursday, December 5, 2013

8 :45 – 12 :30

10:00 – 10:30 Coffee break

9:00 -10:00 Tutorial (Rooms 2, 3)
A Hardware/Software Prototyping System for Driving Embedded Image Processing Investigations
by Christophe Bobda and Michael Mefenza
CSCE Department, University of Arkansas, Fayetteville, Ar, USA

Room

Thursday, December 5, 2013 --- 08:45-10:00

Workshop on Smart Learning Environments (SLE)

Chair: Maiga Chang, Athabasca University, Canada

260 A Contextual Query Expansion Based Multi-document Summarizer for Smart Learning

Guangbing Yang, Kinshuk, Dunwei Wen, Erkki Sutinen

317 To Develop the Virtual Physics Laboratory by Integrating Kinect with Gesture Classification Algorithm

Yi-Zeng Hsieh, Mu-Chun Su, Cheng-Tsung Wu, Chien-Hsing Chou, Ching-Hu Lu, Yu-Xiang Zhao, Ya-Yun Cheng, Yung-Long Chu

164 Towards the Research of Possible Assessment Tools for Associative Learning Skills

Alejandro Bautista Ramos, Ting-Wen Chang, Kinshuk, Sabine Graf

**Room 1
(AV)**

Room

Thursday, December 5, 2013 --- 10:30 -12:30

Web Computing and Applications (WECA)

WECA Session S3

Chair: Kokou Yetongnon, University of Bourgogne, France

17 A Two-Factor and Reader-Undedicated Authentication Scheme with Passive RFID Tags in WLAN

Ya-Fen Chang, Wei-Liang Tai, Shao-Cian Lin, Ti-Sheng Kwang

**Room 1
(AV)**

85 Trust Ontology Based on Access Control Parameters in Multi-organization Environments

Khalifa Toumi, Cesar Andrés, Ana Cavalli

131 Formal Characterization of Illegal Control Flow in Android System

Mariem Graa, Nora Cuppens-Bouahia, Frédéric Cuppens, Ana Cavalli

236 Security Aspects: A Framework for Enforcement of Security Policies Using AOP

Samiha Ayed, Muhammad Sabir Idrees, Nora Cuppens-Bouahia, Frédéric Cuppens, Mónica Pinto, Lidia Fuentes

Workshop on Smart Learning Environments (SLE)

Chair: Maiga Chang, Athabasca University, Canada

78 MAS Controlled NPCs in 3D Virtual Learning Environment

Grant McClure, Maiga Chang, Fuhua Lin

95 Development of a Multi-viewpoint AR-Based Mobile Learning System for Supporting Lunar Observation

Ke Tian, Mamoru Endo, Mayu Urata, Katsuhiro Mouri, Takami Yasuda

215 Immersive and Authentic Learning Environments to Mitigate Security Vulnerabilities in Networked Game Devices

Walter W. Ridgewell, Vive Kumar, Kinshuk

243 Privacy Framework for Peer Affective Feedback

Mouna Selmi, Esma Aïmeur, Hicham Hage

Workshop on Medical Image and Signal Analysis (WS-MISA)

MISA Session S1

Chairs: Gerald Schaefer, Loughborough University, UK and Kouki Nagamune University of Fukui, Japan

196 Auditory Brain-Computer Interface Paradigm with Head Related Impulse Response-Based Spatial Cues

Chisaki Nakaizumi, Koichi Mori, Toshie Matsui, Shoji Makino, Tomasz M. Rutkowski

179 EEG Signal Processing and Classification for the Novel Tactile-Force Brain-Computer Interface Paradigm

Shota Kono, Daiki Aminaka, Shoji Makino, Tomasz M. Rutkowski

183 Bone-Conduction-Based Brain Computer Interface Paradigm-- EEG Signal Processing, Feature Extraction and Classification

Daiki Aminaka, Koichi Mori, Toshie Matsui, Shoji Makino, Tomasz M. Rutkowski

238 HEp-2 Cell Classification Using Multi-scale Texture Information and Multiple Kernel Learning

Niraj P. Doshi, Gerald Schaefer

**Room 2
(Seminar)**

**Room 3
(Seminar)**

14 :00 – 18 :30

16:00 – 16:30 Coffee Break

Room

Thursday, December 5, 2013 --- 14:00 -16:00

**Room 1
(AV)**

Signal and Image Technology (SIT)

SIT Session S7

Chair: Hocine Cherifi, University of Bourgogne, France

21 A Robust Video Super-resolution Based on Adaptive Overlapped Block Motion Compensation

Jing Ge, Ju Liu, Chuan Ge, Xiaohui Yang

209 Color Image Quality Assessment Measure Using Multivariate Generalized Gaussian Distribution

Mounir Omari, Abdelkafer Ait Abdelouahad, Mohammed El_Hassouni, Hocine Cherifi

212 Motion Estimation in Blurred Frames Using Phase Correlation

Sina Firouzi, Chris Joslin

218 Human Tracking Based on Particle Filter with Adaptive Local Descriptor

Sangeun Lee, Keiichi Horio

292 Clifford Algebra and Gabor Filter for Color Image Texture Characterization

A.T. Sanda, E.C. Ezin, P. Gouton, J. Tossa

Workshop on Dependable and Trustworthy Web and Distributed Information Systems (DTWD)

DTWD Session S1, DTWD Session S2 -----> (13:15 – 16:00)

(These sessions are merged, check with workshop chairs)

Chair: Hirofumi Yamaki, Tokyo Denki University, Japan

337 Effective Fingerprinting Codes for Database

Thach V. Bui, Binh Q. Nguyen, Thuc D. Nguyen, Noboru Sonehara, Isao Echizen

329 Settings of Access Control by Detecting Privacy Leaks in SNS

Shimon Machida, Shigeru Shimada, Isao Echizen

289 Dependable and Trustworthy Information System under Regional Restrictions

Hiroshi Fujikawa

Chair: isao Echizen, National Institute of Informatics, Japan

86 Reflection: A Lightweight Protocol for Private Matching

Mahmood Ahmad, Zeeshan Pervez, Yongik Yoon, Byeong Ho Kang, Sungyoung Lee

203 Performance Analysis of Bidirectional Private Policy Matching Protocol Based on Additively Homomorphic Encryption Systems

Hirofumi Yamaki, Fumihiro Mori, Momoko Aoyama

188 A Flexible Authorization Mechanism for Public Wireless LAN Services Based on Automated Trust Negotiation

Hirofumi Yamaki, Momoko Aoyama

305 How to Evaluate Contents Popularity over Oblivious Transfer

Ken Naganuma, Hisayoshi Sato, Masayuki Yoshino, Yoshinori Sato

237 Scalable Hierarchical Distributive Auto-configuration Protocol for MANETs

Amit Munjal, Yatindra Nath Singh, Akrishna Phaneendra, Amitabha Roy

Workshop on Medical Image and Signal Analysis (MISA)

MISA Session S2

Chairs: Gerald Schaefer, Loughborough University, UK and Syoji Kobashi, University of Hyogo, Japan

76 An Evaluation System for Risk Factors of the Recurrent Patellar Subluxation: Position and Profile

Akira Maki, Kouki Nagamune, Shinya Oka, Yuichiro Nishizawa, Daisuke Araki, Takehiko Matsushita, Ryosuke Kuroda, Masahiro Kurosaka

263 Quantitative Evaluation of Patient Specific Instrument for Total Knee Arthroplasty

Syoji Kobashi, Akihiko Toda, Nao Shibamura, Yutaka Hata

185 An Automated Analysis for Anatomical Structure of Distal Femur from MDCT Image by Contour Tracing

Yosuke Uozumi, Kouki Nagamune, Daisuke Araki, Yuichi Hoshino, Takehiko Matsushita, Ryosuke Kuroda, Masahiro Kurosaka

79 A Method to Extract Character Strings from Scene Images by Eliminating Non-character Strings: Towards Development of a Visual Assistance System for People with Visual Impairments

Jianjun Chen, Noboru Takagi

**Room 2
(Seminar)**

**Room 3
(Seminar)**

**Farewell and looking forward to meeting you @
SITIS2014**

Conference Schedule at a Glance

	Day1			Day2			Day3			Day4		
Registration	8:30 – 18:00			8:30 – 18:00			8:30 – 18:00			8:30 – 14:00		
Hour	Monday Dec. 2			Tuesday Dec. 3			Wednesday Dec. 4			Thursday Dec. 5		
	Room			Room			Room			Room		
	Room1 (AV)	Room2 (seminar)	Room3 (seminar)	Room1 (AV)	Room2 (seminar)	Room3 (seminar)	Room1 (AV)	Room2 (seminar)	Room3 (seminar)	Room1 (AV)	Room2 (seminar)	Room3 (seminar)
8:45 – 10:00	Opening 9:00 - :45			Keynote 1 (9:00 – 10:00)			Keynote 2 (9:00 – 10:00)			S1-SLE		Tutorial (9:00 – 10:00)
Coffee break												
10:30-12:30	S1-SIT	S1-COMPLEX	EVS	S1-WECA	S1-IVISE	S1-SACOM	S6-SIT	S1-REIS	SMUE	S3-WECA	S2-SLE	S1-MISA
Lunch break												
14 :00-16 :00	S2-SIT	S2-COMPLEX	MIRA	S4-SIT	S4-COMPLEX	S2-SACOM	S2-WECA	S2-IVISE	S1-CIS	S7-SIT	DTWD 13 :15-16 :00	S2-MISA
Coffee break												
16 :30-18 :30	S3-SIT	S3-COMPLEX	S1-COMI	S5-SIT	S5-COMPLEX	SIMPDA	S1-AdaP	S2-REIS	S2-CIS	Farewell and Meet you @ SITIS 2014		
19 :00-21:30	Reception (Kyoto Night Walk)			Conference Banquet								