

ICBAKE 2013
*2013 International Conference on
Biometrics and Kansei Engineering*



ICBAKE 2013
July 5-7, 2013
Akihabara, Tokyo, Japan



IEEE Conference record number #31838

ICBAKE 2013

Program

Friday, 5 July 2013

11:00-Registration

13:00-13:15 Opening Ceremony

13:15-16:30 Keynote Speech

16:45-17:45 Panel Discussion

18:15-20:15 Welcome Party: UDX Gallery Next3 (Akihabara UDX Building 4F)

Saturday, 6 July 2013

9:00-10:20 Oral Session 1A (Room A)

9:00-10:20 Oral Session 1B (Room B)

10:30-11:50 Oral Session 2A (Room A)

10:30-11:50 Oral Session 2B (Room B)

11:50-13:10 Break for Lunch

13:10-14:40 Poster Session 1

14:50-16:10 Oral Session 3A (Room A)

14:50-16:10 Oral Session 3B (Room B)

16:20-17:20 Oral Session 4A (Room A)

16:20-17:20 Oral Session 4B (Room B)

18:00-20:30 Conference Banquet: Yakatabune – Miuraya

Sunday, 7 July 2013

9:10-10:30 Oral Session 5A (Room A)

10:40-12:00 Oral Session 6A (Room A)

12:00-13:30 Break for Lunch

13:30-15:00 Poster Session 2

15:00-15:20 Closing Ceremony

Program (Authors and Papers)

Friday, 5 July 2013 -----

11:00-Registration

13:00-13:15 Opening Ceremony

13:15-16:30 Keynote Speech

13:15-13:45 (K1) **Khalid Saeed**

13:45-14:15 (K2) **Akira Otsuka**

14:15-14:45 (K3) **Masatsugu Ichino**

Break (15 minutes)

15:00-15:30 (K4) **Satori Hachisuka**

15:30-16:00 (K5) **Toshikazu Kato**

16:00-16:30 (K6) **Tomomasa Nagashima**

Break (15 minutes)

16:45-17:45 Panel Discussion

Chair: **Khalid Saeed**

Co-chair: **Tomomasa Nagashima**

Panelist: **Toshikazu Kato**

Panelist: **Satori Hachisuka**

Panelist: **Akira Otsuka**

Panelist: **Masatsugu Ichino**

18:15-20:15 Welcome Party

UDX Gallery Next3 (Akihabara UDX Building 4F)

03-4577-8600

Saturday, 6 July 2013 -----

9:00-10:20 Oral Session 1A (Room A) Chair: Tetsuo Hattori

- (1A-1) **Ken Ishibashi and Kazunori Miyata**; Grid Layout Generator using Interactive Evolutionary Computation
- (1A-2) **Chandra Reka Ramachandiran and Nazeen Jomhari**; Kansei Engineering; Emotion Exploration in Blogs
- (1A-3) **Yasufumi Takama and Kohei Ishiguro**; Interactive Context Search System for Exchange Rate Data Using Granularity-dependent Similarity Calculation of Temporal Data
- (1A-4) **Shun Nomura, Yihsin Ho and Toru Yamaguchi**; Acquiring Personal Keyword based on Communication Log for Pass-by Wireless Communication on Smartphone

Break (10 minutes)

9:00-10:20 Oral Session 1B (Room B) Chair: Ashu Marasinghe

- (1B-1) **Yoko Suzuki and Hisashi Yamamoto**; Quantitative Analysis in Impression for Trademarks, Symbols and Logotypes of Corporations in Terms of Customers' Familiarity
- (1B-2) **Yusuke Kawakami, Tetsuo Hattori, Daisuke Kutsuna, Haruna Matsushita, Yoshiro Imai, Hiromichi Kawano and Janaka Rajapakse**; An automated color image arrangement method based on histogram matching
- (1B-3) **Hideaki Mizuhashi, Masayoshi Kamijo, Hiroaki Yoshida and Masahiko Kubo**; Investigation of comfort of underwear made of mixed polypropylene fabric when warming up
- (1B-4) **Rajiv Khosla, Mei-Tai Chu and Khanh Nguyen**; Enhancing Emotional Well Being of Elderly Using Assistive Social Robots in Australia

Break (10 minutes)

10:30-11:50 Oral Session 2A (Room A) Chair: Khalid Saeed

- (2A-1) **Krzysztof Wrobel, Rafal Doroz and Malgorzata Palys**; A Method of Lip Print Recognition Based on Sections Comparison
- (2A-2) **Rafal Doroz, Piotr Porwik and Krzysztof Wrobel**; Signature Recognition Based on Voting Schemes
- (2A-3) **Keiichi Yonemura, Fuminori Ono and Katsumi Watanabe**; Person recognition based on memory of back view

(2A-4) **Atsushi Sugama and Akihiko Seo**; Waveform Analysis for Human Handling Force Data Using Wavelet Transform

10:30-11:50 **Oral Session 2B (Room B)** **Chair: Makoto Fukumoto**

- (2B-1) **R.P.C. Janaka Rajapakse, Ashu Marasinghe and Tetsuo Hattori**; Kansei-based Color Balancing for Motion Graphics
- (2B-2) **Manabu Chikai, Akira Shionoya, Ashu Marasinghe and Hitoshi Miyake**; A Cognitive Psychological Approach to Identify the Significance of the Role of Visual Sense in Haptic Sense
- (2B-3) **Ai Yoto, Hidehiko Yokogoshi, Tsuyoshi Moriyama, Yoriyuki Nakamura, Tsuyoshi Katsuno and Tsutomu Nakayama**; Effect of Smelling Green Tea Rich in Aroma Components on EEG Activity and Memory Task Performance
- (2B-4) **Hironobu Kamimura, Takashi Uozumi, Jun Miura, Haruki Sasaki and Noriaki Kaneki**; Effect of different flavors on physiological and psychological responses after soup intake with nutritional equivalence

11:50-13:10 **Break for Lunch**

13:10-14:40 **Poster Session 1**

- (P1-1) **Koichi Kurita**; Differences between Individuals with Temporal Change in Plantar Surface Contact Area in Walking Motion
- (P1-2) **Isao Nakanishi, Takashi Inada, Yuuta Sodani and Shigang Li**; Performance Evaluation of Intra-Palm Propagation Signals as Biometrics
- (P1-3) **Kazutaka Ohnuki, Tomohiko Ohtsuka and Hiroyuki Aoki**; Reliable Iris Detection by Boundary Search using Haar-like Features
- (P1-4) **Krzysztof Misztal, Adam Szczepański, Przemysław Kocjan, Khalid Saeed and Jacek Tabor**; Distribution estimation applied to face recognition as a simple and robust solution
- (P1-5) **Malgorzata Palys, Rafal Doroz and Piotr Porwik**; On-line signature recognition based on an analysis of dynamic feature
- (P1-6) **Yutaro Nakamura, Kimihiro Yamanaka, Mi Kyong Park and Mitsuyuki Kawakami**; Basic Study for Promoting Driving Safety Support Systems among Elderly Drivers
- (P1-7) **Kyoshiro Sasaki, Shuichiro Taya and Kayo Miura**; Increase in numerical magnitude from left-to-right shortens perceived time
- (P1-8) **Hiroshi Ueda, Yasunori Arita and Katsumi Watanabe**; Effects of different manners of speaking on voice likeability, credibility, and intentionality ratings
- (P1-9) **Masaki Ishii, Atsushi Minochi, Kimihiro Yamanaka and Takanori Chihara**; Evaluation of mental workload based on pursuit eye movement

- (P1-10) **Yusuke Ohta and Keiko Kasamatsu**; Characteristics of the Appearance and Uniqueness of Humidifiers
- (P1-11) **Shinpei Koga, Takafumi Inoue and Makoto Fukumoto**; A Proposal for Intervention by User in Interactive Genetic Algorithm for Creation of Music Melody
- (P1-12) **Takafumi Inoue and Makoto Fukumoto**; Creation of Sound Contents by Extended Interactive Evolutionary Computation Using Heart Rate Variability
- (P1-13) **Elizabeth Benitez, Alejandro Hernandez, Jose Reyes and Ashu Marasinghe**; Kansei Engineering in Gigakuman Character Design

Break (10 minutes)

14:50-16:10 **Oral Session 3A (Room A)** **Chair: Yoshio Shimizu**

- (3A-1) **Masataka Aoi, Kazuma Hashimoto, Hiroaki Yoshida and Masayoshi Kamijo**; Evaluation of Sleeping Comfort of Bed Mattresses with Different Elastic Moduli for Each Body Region
- (3A-2) **Akira Ishii, Sho Ota, Hidehiko Koguchi and Koki Uchiyama**; Quantitative Analysis of Social Popularity of Entertainments Using Mathematical Model for Hit Phenomena for Japanese Pop Girl Group AKB48
- (3A-3) **Prabath Weerasinghe, Ashu Marasinghe, Rasika Ranaweera, Senaka Amarakeerthi and Michael Cohen**; Emotion Expression For Affective Social Communication
- (3A-4) **Jose Manuel Garcia Mendoza and Ashu Marasinghe**; Kansei Color Concepts in Interface Design for Mexican and Japanese E-Commerce Websites

Break (10 minutes)

14:50-16:10 **Oral Session 3B (Room B)** **Chair: Takashi Uozumi**

- (3B-1) **Masatoshi Imai, Yoshiro Imai and Tetsuo Hattori**; A Scheme of Resource Discovery in Reproductive Design Education - Trial Evaluation of SNS-Contributed Design Education
- (3B-2) **Chamara Promod Liyanage and Ashu Marasinghe**; Planning Smart Meal in a Smart City for a Smart living
- (3B-3) **Tetsuya Miyoshi, Hidetoshi Nakayasu, Midori Mori and Masao Nakagawa**; Analysis of Evacuation Behavior in Aircraft Accident Using Evacuation Model Based on MAS
- (3B-4) **Saromporn Charoenpit and Michiko Ohkura**; A Proposal of New E-Learning System Design Focusing on Emotional Aspects Using Biological Signals

Break (10 minutes)

16:20-17:20 **Oral Session 4A (Room A)** **Chair: Piotr Porwik**

- (4A-1) **Daishi Watabe, Takanari Minamidani, Wenbo Zhao, Hideyasu Sai and Jianting Cao**; Effect of barrel distortion and super-resolution for single-view-based ear biometrics rotated in depth
- (4A-2) **Lukasz Smacki**; Latent Lip Print Identification Using Fast Normalized Cross-Correlation
- (4A-3) **Masayuki Daikoku and Nobuyuki Nishiuchi**; Proposal of New Security System Using the Three-Dimensional Motion of the Finger

16:20-17:20 **Oral Session 4B (Room B)** **Chair: Hironobu Kamimura & Ashu Marasinghe**

- (4B-1) **Jay Rajasekera and Hiranthi Karunasena**; Apparel Design for Global Market: Kansei Engineering Perspective
- (4B-2) **Sugeeswari Lekamge and Ashu Marasinghe**; Developing a Smart City Model that Ensures the Optimum Utilization of Existing Resources in Cities of All Sizes
- (4B-3) **Yasuko Kawahata, Etsuo Genda and Akira Ishii**; Revenue Prediction of Music Concerts Using the Mathematical Model of Hit Phenomena

18:00-20:30 **Conference Banquet**

Yakatabune - Miuraya

<http://www.funayado-miuraya.co.jp/>

Sunday, 7 July 2013 -----

9:10-10:30 **Oral Session 5A (Room A)** **Chair: Masayoshi Kamijo**

- (5A-1) **Mitoko Nakashima**; Study on the Community Facility Adjacent to the Small-Scale Multi-Functional Care Facility for Elderly People in Omuta City
- (5A-2) **Somchanok Tivatansakul and Michiko Ohkura**; Healthcare System Focusing on Emotional Aspects Using Augmented Reality - Implementation of Breathing Control Application in Relaxation Service
- (5A-3) **Yoshiro Imai, Hirokazu Kawasaki, Tetsuo Hattori, Shinichi Masuda, and Yukio Hori**; Performance Evaluation of Line-Sensor 3CCD Camera and Comparison of Specialist's Determination and Numerical Approach
- (5A-4) **Mitsuki Kitani and Hideyuki Sawada**; Mechanical Reproduction of Human-like Expressive Speech Using a Talking Robot

Break (10 minutes)

10:40-12:00 **Oral Session 6A (Room A)** Chair: **Isao Nakanishi**

- (6A-1) **Nobuyuki Nishiuchi and Hiroka Soya**; Biometrics to Prove Agreement at the Same Time and Place for Two Users
- (6A-2) **Yuta Sato, Fumitsugu Akazawa, Daigo Muramatsu, Takashi Matsumoto, Atsushi Nakamura and Takayuki Sota**; An Authentication Method by High Spectral Resolution Palm Datacube
- (6A-3) **Mariusz Rybniak, Marek Tabędzki, Marcin Adamski and Khalid Saeed**; An Exploration of Keystroke Dynamics Authentication using Non-fixed Text of Various Length
- (6A-4) **Eri Shimokawara, Tetsuya Kaneko, Toru Yamaguchi, Makoto Mizukawa, and Nobuto Matsuhira**; Estimation of Basic Activities of Daily living using ZigBee 3D Accelerometer Sensor Network

12:00-13:30 **Break for Lunch**

13:30-15:00 **Poster Session 2**

- (P2-1) **Hiroyuki Ogata, Yuya Sakamoto, Toshinobu Takei and Akira Torige**; Hand Shape Discrimination in Touch Interface Toward Personal Authentication on a Tablet Computer
- (P2-2) **Adam Szczepański and Khalid Saeed**; Real-Time ECG Signal Feature Extraction for the Proposition of Abnormal Beat Detection - Periodical Signal Extraction
- (P2-3) **Marcin Adamski, Khalid Saeed, Marek Tabędzki and Mariusz Rybniak**; Signature system based on extended Shape Context Descriptors
- (P2-4) **Tatsuya Nakata, Masayuki Kashima, Kiminori Sato and Mutsumi Watanabe**; Lip-sync Personal Authentication System Using Movement Feature of Lip
- (P2-5) **Yuichiro Hamano and Nobuyuki Nishiuchi**; Usability Evaluation of Text Input Methods for Smartphone among the Elderly
- (P2-6) **Ayumi Shiga and Nobuyuki Nishiuchi**; A Support System for Making Persona Using Bayesian Network Analysis
- (P2-7) **Kanako Fukuda and Nobuyuki Nishiuchi**; Proposal for Objective Evaluation of User Experiences
- (P2-8) **Chihiro Saegusa and Katsumi Watanabe**; Hair-color matching and self-concept: An exploratory study on Japanese women
- (P2-9) **Tomomi Yasuda, Takeshi Tanaka, Nobuyuki Fujimura, Akihiro Yamada and Tetsuo Hattori**; Suggestion of an IC design education method for understanding intuitively and feelingly

(P2-10) **Na Chen, Kanji Tanaka, Daisuke Matsuyoshi and Katsumi Watanabe;**

Correlated preferences for color and shape

(P2-11) **Junichi Fujita, Tetsuo Hattori and Kensho Okamoto;** Novel Audio Amplifier

System Using Opt-coupling of LED and PD

Break (10 minutes)

15:00-15:20 **Closing Ceremony**

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