

## Program of SCIS & ISIS 2016

### August 25, 2016 (Thu)

13:00-17:00 Registration

18:00- Welcome Reception @ Sapporo Park Hotel 3F "EMERALD"

### August 26, 2016 (Fri)

8:50-9:20 Opening Ceremony

9:20-10:20 Plenary Talk 1 (Chair: Takahiro Yamanoi (Hokkai Gakuen University, Japan))  
Multicriteria Decision Making with Interacting Criteria  
Prof. Michel Grabisch  
(University of Paris Panthéon-Sorbonne, Paris School of Economics, France)

10:20-10:40 Break

#### 10:40-12:00 Parallel Sessions

[Fr2-1] GS: Intelligent Systems and Robot

Chair: Junji Nishino (The University of Electro-Communications, Japan)

10:40-11:00 Fuzzy Evaluation of Macroscopic Situation for Turn based Strategic Games  
Kosuke Muto and Junji Nishino

11:00-11:20 Gait Recognition from Freestyle Walks Using Relative Coordinates and Random  
Subsequence-Based Sum-Rule Classification  
Nitchan Jianwattanapaisarn, Nirattaya Khamsemana, and Cholwich Nattee

11:20-11:40 Learning Adaptive Escape Behavior for Wheel-Legged Robot by Inner Torque Information  
Yuki Nishimura and Sadayoshi Mikami

11:40-12:00 Dynamic Global PID Sliding Mode Control for MEMS Gyroscope Using Adaptive Neural  
Controller  
Juntao Fei and Yundi Chu

[Fr3-1] OS: Theories and Applications of Evolutionary Algorithms (1)

Chair: Yoshiko Hanada (Kansai University, Japan)

10:40-11:00 Dimension Reduction EA for Portfolio Replication Problem: Search Space Change by Fixing  
Important Variables  
Yukiko Orito and Yoshiko Hanada

11:00-11:20 A Study on Stepwise Satisfaction Method of Constraints Based on Difficulty of Constraints  
Ryo Ooe and Tomohiro Yoshikawa

- 11:20-11:40 Evolutionary Algorithmic Parameter Optimization of MOEAs for Multiple Multi-Objective Problems  
Motoaki Kakuguchi, Minami Miyakawa, Keiki Takadama, and Hiroyuki Sato
- 11:40-12:00 The Effectiveness of Considering the Intrinsic Characteristics for Nurse Scheduling Problem  
Junya Inafune and Shinya Watanabe

[Fr4-1] OS: Clustering (1)

Chair: Akira Notsu (Osaka Prefecture University, Japan)

- 10:40-11:00 On Possibilistic Clustering Algorithms Based on Noise Clustering  
Yuchi Kanzawa

GS: Decision Making and Risk

- 11:00-11:20 Application of the UCT Algorithm for Noisy Optimization Problems  
Akira Notsu, Satoshi Kane, Seiki Ubukata, and Katsuhiro Honda
- 11:20-11:40 A Novel Bipolar MCDM Model Using Rough Sets and Three-Way Decisions for Decision Aids  
Kao-Yi Shen and Gwo-Hshiung Tzeng
- 11:40-12:00 A Subjective and Objective Constructing Approach for Reasonable Membership Function Based on Mathematical Programming  
Takashi Hasuike and Hideki Katagiri

[Fr5-1] OS: Soft Computing Techniques for Computer Vision

Chair: Motonori Doi (Osaka Electro-Communication University, Japan)

Co-Chair: Yoshimichi Ito (Osaka Electro-Communication University, Japan)

- 10:40-11:00 A Least Median of Squares Method Based on Fuzzy Reinforcement Learning for Modeling of Computer Vision Applications  
Toshihiko Watanabe and Tomoki Ishimaru
- 11:00-11:20 Estimation of Camera Projection Matrix Using Linear Matrix Inequalities  
Yoshimichi Ito and Yuta Oda
- 11:20-11:40 Analysis of Rearview Image Sequence of Motorcycle for Defensive Driving  
Motonori Doi and Junpei Oritate

OS: Action & Behavior Analysis for Surveillance & Other Applications

- 11:40-12:00 Tracking Visitors in a Real Museum for Behavioral Analysis  
Md. Golam Rashed, Ryota Suzuki, Takuya Yonezawa, Antony Lam, Yoshinori Kobayashi, and Yoshinori Kuno

[Fr6-1] OS: Soft Intelligent SoC

Chair: Yukinobu Hoshino (Kochi University of Technology, Japan)

- 10:40-11:00 Pipeline Labeling Algorithm with Parallel Calculation of Gravity Center on FPGA  
Masahiro Shimasaki and Yukinobu Hoshino
- 11:00-11:20 Evaluation of Optimization Methods for Neural Network

Yuto Yasuoka, Yukinobu Hoshino, and Yuki Shinomiya

11:20-11:40 An-FPGA Based Classification System by Using a Neural Network and an Improved Particle Swarm Optimization Algorithm

Tuan Linh Dang and Yukinobu Hoshino

11:40-12:00 An Analysis of Dependency of Prior Probability for Codebook-Based Image Representation  
Yuki Shinomiya and Yukinobu Hoshino

[Fr7-1] OS: Application to Managerial Decision Making

Chair: Sangheon Han (Nagoya University of Commerce & Business, Japan)

10:40-11:00 Input Quantity Commitment in Vertically Related Industries  
Joonghwa Oh and Jaewook Kim

11:00-11:20 Can We Duplicate a Sequential Game with an Asymmetric Simultaneous Game  
DongJoon Lee

11:20-11:40 A Study on Analytic Hierarchy Process Structural Design - The Case of the Fixed Income Market Portfolio to Worldwide -  
Sangheon Han

**12:00-13:10 Lunch Break**

**13:10-14:10 Plenary Talk 2 (Chair: Byung-Jae Choi (Daegu University, Korea))**

**Machine Learning for Computer Vision**

**Prof. Seong G. Kong**

**(Sejong University, South Korea)**

**14:10-14:30 Break**

**14:30-16:10 Parallel Sessions**

[Fr1-2] Invited Talk 1 (40-50 minutes Talk and about 10 minutes Discussion)

14:30-15:30 Interactive Design Support System Using Kansei Information  
Prof. Takehisa Onisawa (University of Tsukuba)

Chair: Toshihiko Watanabe (Osaka Electro-Communication University, Japan)

[Fr2-2] OS: Human Activity Estimation by Particle Filters

Chair: Norikazu Ikoma (Nippon Institute of Technology, Japan)

14:30-14:50 Motion Prejudgment Dependent Mixture System Noise in System Model for Tennis Ball 3D Position Tracking by Particle Filter  
Yuan Wang, Xina Cheng, Norikazu Ikoma, Masaaki Honda, and Takeshi Ikenaga

14:50-15:10 Real-time Posture Imitation of Biped Humanoid Robot Based on Particle Filter with Simple Joint Control for Standing Stabilization

Yo Kondo, Shohei Yamamoto, and Yasutake Takahashi

GS: Multivariate Analysis

15:10-15:30 Data Compression with Linear Discriminant Analysis

Yan Pei

15:30-15:50 One Missing Value Problem in Latin Square Design of Any Order: Regression Sum of Squares  
Kittiwat Sirikasemsuk

15:50-16:10 Study of Multi-distributed Generation Behavior When Fault Occurrence in Distribution System Using Wavelet Transform

Santipont Ananwattanaporn and Atthapol Ngaopitakkul

[Fr3-2] OS: Theories and Applications of Evolutionary Algorithms (2)

Chair: Shinya Watanabe (Muroran Institute of Technology, Japan)

14:30-14:50 Probabilistic Model-Based Multistep Crossover for Genetic Programming

Kohei Matsumura, Yoshiko Hanada, and Keiko Ono

14:50-15:10 Extracting Different Abstracted Level Rule with Variance-Based LCS

Caili Zhang, Takato Tatsumi, Masaya Nakata, Keiki Takadama, Hiroyuki Sato, and Tim Kovacs

15:10-15:30 Evaluation of Three Steady-State NSGA-III Offspring Selection Schemes for Many-Objective Optimization

Courtney Powell, Phyto Thandar Thant, and Masaharu Munetomo

15:30-15:50 Effects of Different Implementations of a Real Random Number Generator on the Search Behavior of Multiobjective Evolutionary Algorithms

Takahiro Funakoshi, Yusuke Nojima, and Hisao Ishibuchi

[Fr4-2] OS: Rough Sets, Granular Computing and Their Applications (1)

Chair: Yasuo Kudo (Muroran Institute of Technology, Japan)

14:30-14:50 On Apriori-Based Rule Generation in SQL - A Case of the Deterministic Information System

Chenxi Liu, Hiroshi Sakai, Xiaoxin Zhu, and Michinori Nakata

14:50-15:10 Rough Approximations from Indiscernibility Relations under Incomplete Information

Michinori Nakata and Hiroshi Sakai

15:10-15:30 The Rough Set  $k$ -Means Clustering

Seiki Ubukata, Akira Notsu, and Katsuhiro Honda

15:30-15:50 A Linguistic Representation Method for Kansei Data

Sapa Chanyachatchawan, Hong-Bin Yan, Songsak Sriboonchitta, and Van Nam Huynh

15:50-16:10 Investigation of the Relationship between Upper Body Poses and Emotions Using the Evaluation Grid Method

Misaki Ogawa, Saerom Lee, and Yoshifumi Okada

[Fr5-2] OS: Marketing Analysis

Chair: Kazuhiro Takeyasu (Tokoha University, Japan)

14:30-14:50 Utilization of Genetic Algorithm in Allocating Goods to Shop Shelves

Yuki Higuchi and Kazuhiro Takeyasu

14:50-15:10 The Method to Improve Forecasting Accuracy under the Utilization of Neural Network

Kazuhiro Takeyasu, Yuki Higuchi, and Yuta Tsuchida

15:10-15:30 Multivariate Analysis on a Questionnaire Investigation for the Rare Sugars

Yasuo Ishii, Kazuhiro Takeyasu, Hiromasa Takeyasu, and Daisuke Takeyasu

OS: Fuzzy Inference Systems

Chair: Tomoharu Nakashima (Osaka Prefecture University, Japan)

15:30-15:50 Application to a Medical Diagnosis System by Extended Functional-type SIRMs Connected Fuzzy Inference Method

Diederik van Krieken, Hirosato Seki, and Masahiro Inuiguchi

15:50-16:10 Position Prediction of Opponent Players by SIRMs Fuzzy Models for RoboCup Soccer 2D Simulation

Tomonari Nakade, Tomoharu Nakashima, Hidehisa Akiyama, and Hirosato Seki

[Fr6-2] SS: Social Network Analysis

Tomoe Entani (University of Hyogo, Japan)

14:30-14:50 Iterating Influence in Social Networks

Michel Grabisch and Agnieszka Rusinowska

GS: Social Network and Multiagent Systems

14:50-15:10 Link Prediction in Scientists Collaboration with Author Name and Affiliation

Muhammad Ilias Amin and Kazuyuki Murase

15:10-15:30 Learning Evaluation Function for Decision Making of Soccer Agents Using Learning to Rank

Hidehisa Akiyama, Masashi Tsuji, and Shigeto Aramaki

15:30-15:50 Analysis of Coherence Resonance in Kaldor-Kalecki Business Cycle Model

Sou Nobukawa, Ryohei Hashimoto, Haruhiko Nishimura, Teruya Yamanishi, and Masaru Chiba

OS: Social Implementation of Practical and Intelligent Systems (1)

15:50-16:10 Detecting Cyberbullying with Morphosemantic Patterns

Michal Ptaszynski, Fumito Masui, Yoko Nakajima, Yasutomo Kimura, Rafal Rzepka, and Kenji Araki

[Fr7-2] Special Session on Intelligent Systems

Chair: Jae-Young Pyun (Chosun University, Korea);

Suk-seung Hwang (Chosun University, Korea)

14:30-14:50 RFID Management System for Efficient Reusing Construction Materials

Tae-Yun Kim, Ji-Youn Mun, and Suk-Seung Hwang

14:50-15:10 Positioning Protocol Design for IEEE 802.15.4a UWB based RTLS

Dae-Ho Kim, Jeong-Hoon Lee, Jae-Young Pyun

**16:10-16:30 Break**

**16:30-17:50 Parallel Sessions**

[Fr1-3] Invited Talk 2 (40-50 minutes Talk and about 10 minutes Discussion)

16:30-17:30 Dynamic Fuzzy Q-learning with Forgetting Facility

Prof. Motohide Umano (Osaka Prefecture University, Japan)

Chair: Masahiro Inuiguchi (Osaka University, Japan)

[Fr2-3] OS: Human Symbolic Systems (1)

Chair: Yoichiro Maeda (Institute of Technologists, Japan)

Co-Chair: Tomohiro Yoshikawa (Nagoya University, Japan)

16:30-16:50 Impression of Deformation Face Robots with and without a Soft Skin

Hisashi Chihara and Masayoshi Kanoh

16:50-17:10 Behavior Model for Hearing-Dog Robot

Hoshito Kudo, Tomoya Koizumi, Tsuyoshi Nakamura, Masayoshi Kanoh, and Koji Yamada

17:10-17:30 Effects of Collaborative Learning between Educational-Support Robots and Children who  
Potential Symptoms of a Development Disability

Felix Jimenez, Tomohiro Yoshikawa, Takeshi Furuhashi, Masayoshi Kanoh, and Tsuyoshi  
Nakamura

17:30-17:50 A Study on Evaluation Analysis for Products Using Topic Model

Shingo Tsukioka, Tomohiro Yoshikawa, and Takeshi Furuhashi

[Fr3-3] GS: Distributed Systems and Evolutionary Computation

Chair: Yusuke Nojima (Osaka Prefecture University, Japan)

16:30-16:50 Overlay Optimization for Cost Efficient P2P Streaming Service

Hidekazu Suzuki, Mianxiong Dong, He Li, Kaoru Ota, and Chaofeng Zhang

16:50-17:10 Heuristic Task Scheduling with Artificial Bee Colony Algorithm for Virtual Machines

Warangkhan Kimpan and Boonhatai Kruekaew

17:10-17:30 Solving Performances of Piecewise-linear Particle Swarm Optimizer with Chaotic Dynamics

Tomoyuki Sasaki, Hidehiro Nakano, Arata Miyauchi, and Akira Taguchi

17:30-17:50 Multi-Objective Hadoop Configuration Optimization Using Steady-State NSGA-II

Phyo Thandar Thant, Courtney Powell, Akiyoshi Sugiki, and Masaharu Munetomo

[Fr4-3] OS: Cognitive Robotics

Chair: Chu Kiong Loo (University of Malaya, Malaysia)

- 16:30-16:50 The Inference of Robot Utterance Timing Based on Vehicle Acceleration Condition  
Yoshikazu Okajima, Hiroyuki Masuta, Toru Oshima, Ken'ichi Koyanagi Tatsuo Motoyoshi, and Eiichi Takayama
- 16:50-17:10 Genetic Optimized Fuzzy Extreme Learning Machine Ensembles for Affect Classification  
Wei Shiung Liew, Chu Kiong Loo, and Takenori Obo
- 17:10-17:30 Towards Hand-Object Gesture Extraction from Depth Image  
Dongxu Gao, Zhaojie Ju, Jiangtao Cao, and Honghai Liu
- 17:30-17:50 Health Promotion Using Smart Device Interlocked Robot Partners for Elderly People  
Siqi Sun, Takenori Obo, Chu Kiong Loo, and Naoyuki Kubota

[Fr5-3] OS: e-Navigation and Its applications

Chair: Jung Sik Jeong (Mokpo Maritime National University, Korea)

Co-Chair: Yukinobu Hoshino (Kochi University of Technology, Japan)

- 16:30-16:50 Visualization of Ship Collision Risk Based on Near-miss Accidents  
Kim Kwang-Il and Jung Sik Jeong
- 16:50-17:10 A Study on the Implementation of Intelligent Navigational Risk Assessment System with IoT Sensor  
Do-Yeon Kim and Kil-yong Kim, Gyei-Kark Park, and Jung Sik Jeong
- 17:10-17:30 A Study on Data Model and Prototype for Developing a MSI (Maritime Safety Information) Service  
Sewoong Oh, Dongwoo Kang, Eivind Mong, and Byungmoon Park
- 17:30-17:50 Position Service Integrity Analysis of GPS/DGPS Signals in Port Environment  
Youngki Kim, Kiyeol Seo, Sanghyun Park, and Tae Hyun Fang

[Fr6-3] GS: Neural Networks

Chair: Tetsuya Hoya (Nihon University, Japan)

- 16:30-16:50 Self-Organizing Maps for Multi-System and Multi-View Datasets  
Hideaki Ishibashi and Tetsuo Furukawa
- 16:50-17:10 Single-layered Complex-Valued Neural Network with SMOTE for Imbalanced Data Classification  
Kentaro Matsuda and Kazuyuki Murase
- 17:10-17:30 On the Parameter Setting of a Network-Growing Algorithm for Radial Basis Kernel Networks  
Tetsuya Hoya
- 17:30-17:50 Improvement of Sensory Information Processing by Balancing Tonic and Phasic Subthreshold Neuronal Excitation  
Asahi Ishiyama, Hiroakira Matsui, Kazuhiro Tsuboi, Kazuo Watanabe, and Osamu Hoshino

## **August 27, 2016 (Sat)**

**9:00-10:00 Plenary Talk 3 (Chair: Takahiro Yamanoi (Hokkai Gakuen University, Japan))**

**Reality 2.0 and Wisdom Computing – Our Vision Toward the Future**

**Dr. Kazuo Iwano**

**(Japan Science & Technology Agency, Japan)**

**10:00-10:20 Break**

**10:20-12:00 Parallel Sessions**

[Sa1-1] Invited Talk 3 (40-50 minutes Talk and about 10 minutes Discussion)

Chair: Jung Sik Jeong (Mokpo Maritime National University, Korea)

10:20-11:20 Brain-inspired Artificial Intelligence: Model-based and Model-free Control

Dr. Sang Wan Lee (KAIST, Korea)

[Sa2-1] OS: Multimedia Revolution

Chair: Tetsuya Kojima (National Institute of Technology, Tokyo College, Japan)

10:20-10:40 An Efficient Random Unitary Matrix for Biometric Template Protection

Yuko Saito, Ibuki Nakamura and Sayaka Shiota, and Hitoshi Kiya

10:40-11:00 An Interactive Speech Synthesizer Developed with Pure Data and Touch OSC

Naofumi Aoki and Keisuke Ai

11:00-11:20 A Disaster Prevention Broadcasting Based on Audio Data Hiding Technology

Tetsuya Kojima, Kan Kamada, and Udaya Paramalli

11:20-11:40 Review-Based Service Profiling and Recommendation

Toshihiko Yamasaki, Masafumi Yamamoto, and Kiyoharu Aizawa

[Sa3-1] OS: Intelligent Robotics and Vehicle System

Chair: Young J. Ryoo (Mokpo National University, Korea)

10:20-10:40 Active Steerable Driving Mechanism Using Two In-Wheel Motors for Omnidirectional Motion of Robotic Mobile Platform

Young-Jae Ryoo, Susan Park, Yong-Jun Lee, and Kyung Seok Byun

10:40-11:00 Robot Sports Game and Its Strategy as Intelligent System and Soft Computing

Young-Jae Ryoo, Ki-Nam Lee, Woo-Ram Gil, Dae-Yeong Im, and Da-Jung Yoon

11:00-11:20 Dynamic Simulation of Caster Wheel Considering Initial Steering Angle

Seungyoung Yang, Pilgu Lee, Young-Jae Ryoo, and Kyung Seok Byun

OS: Soft Computing to Real World Application

11:20-11:40 Decision Tree Ensemble Classifiers for Anomalous Propagation Echo Detection

Hansoo Lee and Sungshin Kim



11:40-12:00 An Application of Fuzzy Time Series Forecasting  
Jin Hee Yoon and Joocheol Kim

[Sa4-1] OS: Clustering (2)

Chair: Katsuhiko Honda (Osaka Prefecture University, Japan)

10:20-10:40 Hierarchical and Non-hierarchical Medoid Clustering Using Asymmetric Similarity Measures  
Sadaaki Miyamoto, Yousuke Kaizu, and Yasunori Endo

10:40-11:00 A Note on Even-Sized Clustering Based on Optimization  
Tsubasa Hirano, Yasunori Endo, Naohiko Kinoshita, and Sadaaki Miyamoto

11:00-11:20 A Method of Two-Stage Clustering Based on Cluster Validity Measures  
Ryo Ozaki, Yukihiro Hamasuna, and Yasunori Endo

11:20-11:40 On Kernelized Sequential Hard Clustering  
Yukihiro Hamasuna and Yasunori Endo

11:40-12:00 Families of Triangular Norm Based Kernel Function and Its Application to Kernel  $k$ -Means  
Kazushi Okamoto

[Sa5-1] OS: Brain Computing and Embodies Knowledge (1)

Chair: Suguru N Kudoh (Kwansei Gakuin University, Japan)

Co-Chair: Isao Hayashi (Kansai University, Japan)

10:20-10:40 Study on Monitoring Method Using a Wrist Watch Type Device for Unsafe Behavior  
Michiyuki Hirokane and Kenta Kamijo

10:40-11:00 Experiment of Disaster Prevention Education and Evaluation Using a Torrential Rain Simulated  
Experience Application  
Kazuaki Nishiwaki and Takahiro Endo

11:00-11:20 Spatiotemporal Human Brain Activities on Recalling Fruit Names  
Koji Sugimoto, Takahiro Yamanoi, Hisashi Toyoshima, Mika Otuki, Shin-ichi Ohnishi, and  
Toshimasa Yamazaki

11:20-11:40 Analysis of Air Flow and Chest Volume for Sleep Apnea  
Douglas E. Dow, Jacob G. Reed, and Marilyn Urrea

11:40-12:20 Correlation of Brain Activity and Questionnaire at the Decision-Making  
Keita Mitani and Yukinobu Hoshino

[Sa6-1] OS: Intelligent Systems and Its Applications

Chair: Byung-Jae Choi (Daegu University, Korea)

Co-Chair: Noboru Takagi (Toyama Prefectural University, Japan)

10:20-10:40 Design of Fuzzy Logic System for Position Control of Quad-Copter  
Hyun-Ho Yoo, Han Sang Kim, and Byung-Jae Choi

10:40-11:00 Design of Fuzzy Sliding Mode Controller for Maglev Transportation System

Luat Huu Tran and Yong-Tae Kim

11:00-11:20 Performance Evaluation of Big Data Technology on Designing Big Network Traffic Data Analysis System

Nattawat Khamphakdee, Nunnapus Benjamas, and Saiyan Saiyod

[Sa7-1] GS: Transportation Systems

Chair: Takamasa Akiyama (Kansai University, Japan)

10:20-10:40 A Reinforcement Learning Based Dynamic Power Management for Fuel Cell Hybrid Electric Vehicle

Roy Chaoming Hsu, Shi-Mao Chen, Wen-Yen Chen, and Cheng-Ting Liu

10:40-11:00 Comparison of Objective Function Evaluators for a Stochastic Orienteering Problem

Vassilis Papapanagiotou, Roberto Montemanni, and Luca Maria Gambardella

OS: Soft Computing in Urban and Transport Planning

11:00-11:20 Multi-Agent Simulation of Commuting Modal Shift Considering with Health Conscious  
Masashi Okushima

11:20-11:40 Debris Treatment Planning for Large-Scale Earthquakes Using Fuzzy Information

Hiroaki Inokuchi and Takamasa Akiyama

11:40-12:00 Application of Fuzzy Decision Tree to Analyze the Attitude of Citizens for Wellness City Development

Takamasa Akiyama and Hiroaki Inokuchi

**12:00-13:10 Lunch Break**

**13:10-14:50 Parallel Sessions**

[Sa1-2] Invited Talk 4 (40-50 minutes Talk and about 10 minutes Discussion)

13:10-14:10 (Multivariate) Empirical Mode Decomposition Filter Banks and a Quintet Singular Value Decomposition

Prof. Min-sung Koh (Eastern Washington University, USA)

Chair: Syoji Kobashi (University of Hyogo, Japan)

[Sa2-2] OS: Intelligent Systems Based on Bio-signal Processing and Human Behavior Analysis

Chair: Hideaki Touyama (Toyama Prefectural University, Japan)

Co-Chair Hironobu Takano (Toyama Prefectural University, Japan)

13:10-13:30 Emotional Face Retrieval with P300 Signals of Multiple Subjects

Junwei Fan and Hideaki Touyama

13:30-13:50 Effectiveness of Tangible Programming Tool Using RFID System

Tatsuo Motoyoshi, Naoki Tetsumura, Hiroyuki Masuta, Ken'ichi Koyanagi, Toru Oshima, and

Hiroshi Kawakami

13:50-14:10 Tangible Programming Tools Equipping RFID System

Naoki Tetsumura, Tatsuo Motoyoshi, Toru Oshima, Ken'ichi Koyanagi, Hiroyuki Masuta, and Hiroshi Kawakami

14:10-14:30 Consideration of the Experience of a Blind User Using a Tactile Graphics Editor Available for Blind People

Yuji Masaki, Tatsuo Motoyoshi, and Noboru Takagi

14:30-14:50 Development of Measurement Method of Pupil Diameter under Visible-Light Condition

Yuki Morita, Hironobu Takano, and Kiyomi Nakamura

[Sa3-2] OS: Robotics for Socio Synthesis

Chair: Yasunori Takemura (Nishinippon Institute of Technology, Japan)

13:10-13:30 Adaptive Color Tracking for Particle Filter to Control a Drone in a Forest

Keiji Kamei, Kazu Narumi, and Daisuke Shuto

13:30-13:50 Mathematical Modeling and Motion Analysis of the Wheel Based Ball Retaining Mechanism

Kenji Kimura, Kazuo Ishii, Yasunori Takemura, and Motoji Yamamoto

13:50-14:10 Depth-Based Visual Servoing Using Low-Accurate Arm

Ludovic Hofer, Michio Tanaka, Hakaru Tamukoh, Amir Ali Forough Nassiraei, and Takashi Morie

14:10-14:30 Motion Analysis and Control of the Ball Operation for Dribbling Action in RoboCup Soccer Robot

Shota Chikushi, Tharindu Weerakoon, Kazuo Ishii, and Takashi Sonoda

14:30-14:50 Tomato Harvesting Robot Competition

Kazuo Ishii, Yasunori Takemura, Takeyuki Matsuo, and Takashi Sonoda

[Sa4-2] OS: Rough Sets, Granular Computing and Their Applications (2)

Chair: Tomoe Entani (University of Hyogo, Japan)

Co-Chair: Masahiro Inuiguchi (Osaka University, Japan)

13:10-13:30 Improvement of Item-Based Collaborative Filtering by Adding Time Factor and Covering Degree

Zhipeng Zhang, Yasuo Kudo, and Tetsuya Murai

13:30-13:50 Variety of Rough Set Based Attribute Importance

Masahiro Inuiguchi

OS: Interval/Fuzzy Models for Multiple Criteria Decision Making

13:50-14:10 Improvement of Interval Weight Estimation in Interval AHP

Shigeaki Innan and Masahiro Inuiguchi

14:10-14:30 Individual Decisions Affected by Group Decision Based on Surely Assigned Weight

Tomoe Entani

14:30-14:50 Consistent Fuzzy Analytic Hierarchy Process by Considering Fuzzy Input and Output Data

Jih-Jeng Huang

[Sa5-2] OS: Brain Computing and Embodies Knowledge (2)

Chair: Isao Hayashi (Kansai University, Japan)

Co-Chair: Suguru N Kudoh (Kwansei Gakuin University, Japan)

13:10-13:30 An Analysis for Switching of Feedback and Feedforward Mechanism in Motor Internal Model  
Isao Hayashi, Sayaka Kita, Masaki Ogino, and Jasmin Leveille

13:30-13:50 Does Representation of Outer Objects in Living Neuronal Network Synthesize "the Concept"?  
Eri Shibata, Hidekatsu Ito, Wataru Minoshima, and Suguru N. Kudoh

13:50-14:10 Extraction and Investigation of Dominant Eye-Gaze Pattern in Train Driver's Visual Behavior  
Using Markov Cluster Algorithm  
Yukio Horiguchi, Takaya Suzuki, Tetsuo Sawaragi, Hiroaki Nakanishi, and Tomoharu Takimoto

OS: Decoding and Control of Biological System (1)

Chair: Hidekatsu Ito (Kwansei Gakuin University, Japan)

14:10-14:30 Input-Output Transformation of a Neuronal Oscillator  
Takanobu Yamanobe

14:30-14:50 Maximum Entropy Learning in Cultured Cortical Neural Networks  
Takuya Isomura, Kiyoshi Kotani, and Yasuhiko Jimbo

[Sa6-2] OS: Social Implementation of Practical and Intelligent Systems (2)

Chair: Daisuke Kitakoshi (National Institute of Technology, Tokyo College, Japan)

13:10-13:30 Smart Device Interlocked Robot Partners for Information Support Systems in Sightseeing Guide  
Siqi Sun, Takahiro Takeda, Hisae Koyama, and Naoyuki Kubota

13:30-13:50 A Validity Analysis of a User Model Employed in a Research Activity Support System  
Daisuke Kitakoshi, Shunya Toda, and Masato Suzuki

13:50-14:10 Development of a Pedestrian Navigation System for the Visually Impaired with QZSS and RFID  
Akihiro Yamashita, Kei Sato, Syunta Sato, and Katsushi Matsubayashi

GS: Story Generation and Summarization

14:10-14:30 Multi-document Summarization by Creating Synthetic Document Vector Based on Language  
Model  
Dahae Kim and Jee-Hyong Lee

14:30-14:50 Generate Causal Story Plots by Monte Carlo Tree Search Based on Common Sense Ontology  
Von-Wun Soo, Tai-Hsun Chen, and Chi-Mou Lee

[Sa7-2] GS: Kansei Engineering and Interface

Chair: Masataka Tokumaru (Kansai University, Japan)

13:10-13:30 A Moral Judgment System Using an Automatic Created Moral Corpus  
Masahiro Yamamoto and Masafumi Hagiwara

13:30-13:50 Analysis of Images of Streetscapes by Text Data and Comparison between Residents and  
Visitors

Kohei Nomoto and Naruki Noguchi

13:50-14:10 Music Recommendation System Improvement Using Distributed Genetic Algorithm

Masayoshi Inoue, Hiroshi Takenouchi, Masataka Tokumaru

14:10-14:30 Interruption-Information Management Framework for Chat Interface

Shreejana Prajapati, Koichi Yamada, Muneyuki Unehara, and Izumi Suzuki

14:30-14:50 Interactive Voice Generation System for Story Reading

Takehisa Onisawa and Kiriko Ogino

**14:50-15:05 Break**

**15:05-16:05 Poster Session @ Poster Session Room, 6F**

Coordinator: Hirosato Seki (Osaka University, Japan)

Po-1 Large Graph Reconstruction Method for Fast Graph Analysis on Spark

Ryota Takei, Ayahiko Niimi

Po-2 On Reward Function for Survival

Naoto Yoshida

Po-3 Action Selection Using Each Task Priority: Realization of Asynchrony Action Selection and Update Priorities

Takuya Masaki and Kentarou Kurashige

Po-4 Rating-Scale Questionnaire Survey Analysis Using SOM-Based Nonlinear Tensor Decomposition

Hideaki Ishibashi, Tohru Iwasaki, Yohsuke Date, and Tetsuo Furukawa

Po-5 Automatic Detection and Manual Analysis of Inadequate Descriptions in a Thesis

Takuma Okada, Masaki Murata, and Qing Ma

Po-6 Application of Kansei Engineering and Analytic Network Process in the Thai Ceramic Design

Chaiwat Kittidecha and Koichi Yamada

Po-7 Workings of the Brain in the Time Perception Using the Time Guessing Game

Ryosuke Hayasaka, Keita Mitani, and Yukinobu Hoshino

Po-8 Discussion of Sensor Accuracy Introducing to Machine Learning with Model Car

Hisayuki Sasaoka

Po-9 Withdrawn

Po-10 A Quality Classification Model for Word of Mouth via a Content-Based Sentiment Lexicon

Chihli Hung and Rui-Jia Zhong

Po-11 Mining Correlated Association Rules from Multi-Relational Data Using FCA

Masahiro Nagao and Hirohisa Seki

Po-12 Writer Identification Using Skeleton-Based Shape Feature of Hand Holding a Pen

Midori Tanaka and Mitsuru Nakai

Po-13 Feature Extraction of English Textbooks for Elementary School Children in Finland

Hiromi Ban, Haruhiko Kimura, and Takashi Oyabu

- Po-14 Walking Activity Estimation Method by Using Electrostatic Induction  
Koichi Kurita
- Po-15 Logics in Granular Computing  
Tuan-Fang Fan and Churn-Jung Liao
- Po-16 Object Detection Using Color Entropy-Based Fuzzy Classifier with Expanded Consequent Space  
Guo-Cyuan Chen, Chia-Feng Juang, and I-Fang Chung
- Po-17 Comparison of Water Quality Classification Models Using Artificial Neural Network and Bayesian Network  
Dehiwala Liyanage, Chamara P. Liyanage, and Koichi Yamada
- Po-18 Analysis of Fundamental and Harmonic Frequency Components in Photic Driving Response  
Yuto Abe, Tadanori Fukami, Takamasa Shimada, and Fumito Ishikawa
- Po-19 Japanese Word Sense Disambiguation Using Paraphrasing and Machine Learning  
Yuma Toda, Masaki Murata, and Qing Ma
- Po-20 Visualizing States by Autoregressive Gaussian Process Dynamical Models  
Nobuhiko Yamaguchi
- Po-21 A Modification of Weighted k-Nearest Neighbor and Its Application to Land-Cover Classification with Remote-Sensing Image  
Ryosuke Kubota and Tatsuya Hayashi
- Po-22 High Quality 3D Color Imaging for Gesture Recognition  
Jing-Wein Wang, Tzu-Hsiung Chen, and Quynh Anh Vu
- Po-23 Effective Estimation Method of P300 and SSVEP in Hybrid BCI  
Ryota Mihira, Takuya Suzuki, Ryota Sawaki, Tadanori Fukami, and Fumito Ishikawa
- Po-24 A Hybrid Method of CT Algorithms Using Total Variation, Iterative FT and Support Construction  
Wisan Dhammatorn and Hiroyuki Shioya
- Po-25 Effects of Acoustical Noise on Selective Attention to Auditory Stimuli during Intellectual Task  
Takahiro Tamesue
- Po-26 Source Code Representation Using Statement Relation Long Short-Term Memory Networks  
Suah Kim and Jee-Hyong Lee
- Po-27 Feature Selection for On-line Signature Verification Using Dynamic Features  
Kotaro Nakano and Basabi Chakraborty
- Po-28 Adaptive Refocusing Algorithm Design Based on 3D Depth Image  
Yu-Cheng Fan and Wei-Syuan Chen

**16:05-16:20 Break**

**16:20-18:00 Parallel Sessions**

[Sa1-3] Invited Talk 5 (40-50 minutes Talk and about 10 minutes Discussion)

16:20-17:20 Visual Analysis and Representations of Type-2 Fuzzy Membership Functions  
Prof. Frank Chung-Hoon Rhee (Hanyang University, Korea)  
Chair: Young Im Cho (Gachon University, Korea)

[Sa2-3] OS: Human Symbolic Systems (2)

Chair: Tomohiro Yoshikawa (Nagoya University, Japan)

Co-Chair: Yoichiro Maeda (Institute of Technologists, Japan)

16:20-16:40 Gaze Instruction System Used Panoramic Expansion Image of Omnidirectional Camera  
Yoichiro Maeda and Kazuki Naruki

16:40-17:00 Power Assist Control Based on Motion Estimation of Wearer's Forearm Using Motion Sensor  
Katsuya Sahashi, Shinnosuke Nomura, Takuya Inoue, Yasutake Takahashi, Yoshiaki Taniai, and  
Masayuki Kawai

17:00-17:20 Verifying Effectiveness of a Handwriting Robot Using Onomatopoeia  
Kazuya Endo, Masayoshi Kanoh, and Tsuyoshi Nakamura

17:20-17:40 Adobe Illustrator Plug-in to Support Brush Selection Using Onomatopoeia Utterance  
Gou Kayama, Masato Yoshiike, Yuri Yamada, Tsuyoshi Nakamura, Masayoshi Kanoh, and Koji  
Yamada

OS: IoT Security and Its Application

17:40-18:00 Development of a Customized User Control of Digital Audio in a Smart Home  
Jung-Sook Kim

[Sa3-3] OS: Novel Media in Ubiquitous Virtual Reality

Chair: Choonsung Shin (KETI, Korea)

16:20-16:40 3D Printing Simulation Tool for Future 3D Printing Environment  
Choonsung Shin and Sang-Won Lee

16:40-17:00 Position and Force Sensitive N-Ary User Interface Framework for Wrist-worn Wearables  
Hyoseok Yoon, Ji-Eun Lee, Se-Ho Park, and Kyung-Taek Lee

17:00-17:20 Survey on Interactive AR Book  
Choonsung Shin, Sehwan Kim, and Youngho Lee

GS: Modeling and Simulation

17:20-17:40 Comparative Experiments on Models for Automatic Baseball Video Tagging  
Komei Arasawa and Shun Hattori

[Sa4-3] OS: Clustering (3)

Chair: Yasunori Endo (University of Tsukuba, Japan)

16:20-16:40 A Study on Recommendation Ability in Collaborative Filtering by Fuzzy Co-Clustering with  
Exclusive Item Partition  
Takaya Nakano, Katsuhiko Honda, Seiki Ubukata, and Akira Notsu

16:40-17:00 Cluster Validation in Multinomial Mixtures-Induced Fuzzy Co-Clustering

Katsuhiro Honda, Yurina Suzuki, Seiki Ubukata, and Akira Notsu

17:00-17:20 A Noise Fuzzy Co-clustering Scheme in MMMs-Induced Clustering

Katsuhiro Honda, Nami Yamamoto, Seiki Ubukata, and Akira Notsu

GS: Pattern Recognition

17:20-17:40 Approximate Determination of q-Parameter for FCM with Tsallis Entropy Maximization

Makoto Yasuda

17:40-18:00 Reversible Data Hiding with Prediction-Based Multi-Bit Embedding and Multi-Level Difference Alteration

Hsiang-Cheh Huang, Feng-Cheng Chang, and Yuh-Yih Lu

[Sa5-3] OS: Decoding and Control of Biological System (2)

Chair: Hidekatsu Ito (Kwansei Gakuin University, Japan)

16:20-16:40 Development of Gait Assistive Device Using Pneumatic Artificial Muscle

Yusuke Hashimoto, Yasutaka Nakanishi, Norihiko Saga, Jun-ya Nagase, and Toshiyuki Satoh

16:40-17:00 Attempt on the Extraction of EEG Using the ECG at the Time of Walking and Stepping Motion

Kikuo Fujimura and Syohei Okazaki

17:00-17:20 Development of Wearable Force Plate

Ken Oi, Yasutaka Nakanishi, Norihiko Saga, and Kunio Shimada

17:20-17:40 Comparison of Prefrontal Activity Evoked by Limbic Movement, Motor Imagery and Transcranial Magnetic Stimulation (TMS)

Sayaka Morishita, Hidekatsu Ito, and Suguru N. Kudoh

17:40-18:00 Relationships between Stimulus Interval and Changes of Firing Properties

Hidekatsu Ito, Wataru Minoshima, and Suguru N. Kudoh

[Sa6-3] OS: Intelligent Smart City

Chair: Young Im Cho (Gachon University, Korea)

Jung-Sook Kim (Kimpo University, Korea)

16:20-16:40 Stixel-Based Stereo Vision for Real-time ADAS

Taekang Woo, SeungSoo Kim, Hyoungrae Kim, Eunsoo Park, and Hale Kim

16:40-17:00 Intelligent Unmanned Aerial Vehicle Platform for Smart Cities

Andrey Giyenko and Young Im Cho

GS: Smart City

17:00-17:20 Development of Reporting Tool for Supporting Language Disorder Diagnosis

Moonsoo Chang, Tae-kyoon Choi, and Min-ho Yoo

17:20-17:40 Smart Grid Framework Test Bed Using OPNET and Power Line Communication

Jun-Ho Huh and Kyungryong Seo

17:40-18:00 Regional Revival through IoT Enabled Smart Tourism Process Framework (STPF): A Proposal

Bishnu P. Gautam, Hiroyasu Asami, Amit Batajoo, and Tatsuya Fujisaki



[Sa7-3] OS: Synthesis of Computational Intelligence Technologies and Methodological Design

Chair: Kisung Seo (Seokyeong University, Korea)

Co-Chair: Wei Huang (Tianjin University of Technology, P.R. China)

16:20-16:40 Design of Classification of Black Plastics Based on Fuzzy Radial Basis Function Neural Networks  
Using Raman Spectroscopy

Jong-Soo Bae, Sung-Kwun Oh, and Eun Ok Kim

16:40-17:00 Design of Face Recognition System Realized with the Aid of PCA-based RBFNN

Sun-Hawn Kim, Sung-Kwun Oh, and Jin-Yul Kim

17:00-17:20 Design of Interval Type-2 FCM-based Neural Networks

Wook-Dong Kim, Sung-Kwun Oh, and Kisung Seo

17:20-17:40 Design of Radial Basis Function Neural Networks with Principal Component Analysis and Linear  
Discriminant Analysis for Black Plastic Identification

Seok-Beom Roh, Sung-Kwun Oh, Eun Kyu Park, and Woo Zin Choi

17:40-18:00 Polynomial Neural Network Classifiers Based on Data Preprocessing and Space Search  
Optimization

Wei Huang, Sung-Kwun Oh, and Witold Pedrycz

## **August 28, 2016 (Sun)**

**8:40-9:40 Plenary Talk 4 (Chair: Yasuo Kudo (Muroran Institute of Technology, Japan))**

**Cloud Based Intelligent Robotics**

**Prof. Peter Sinčák**

**(Technical University of Kosice, Slovakia)**

**9:40-10:00 Break**

### **10:00-11:00 Parallel Sessions**

[Su2-1] OS: Practical Applications of Intelligent Systems (1)

Chair: Keon Myung Lee (Chungbuk National University, Korea)

10:00-10:20 Intuitionistic Fuzzy Approximation Spaces Induced by Intuitionistic Fuzzy Topologies

Sang Min Yun and Seok Jong Lee

10:20-10:40 Fast Generative Approach Based on Sparse Representation for Visual Tracking

Suryo Adhi Wibowo, Hansoo Lee, Eun Kyeong Kim, and Sungshin Kim

[Su3-1] OS: Interactive Systems (1)

Chair: Makoto Fukumoto (Fukuoka Institute of Technology, Japan)

10:00-10:20 Interactive Projection System that Always Presents Information within User's View

Jun-ichi Imai, Ryota Kobayashi, Kazuya Jinjo, Hirobumi Suzuki, Kazuto Kameda, Shohei Koshikawa, and Seiya Takihara

10:20-10:40 Development of a Breathing Detection Robot for a Monitoring System

Tsukasa Ushijima and Junji Satake

10:40-11:00 Calibrating Screen Coordinates of Tabletop Display Using a Shadow Cursor and its Properties

Makio Ishihara and Yukio Ishihara

[Su4-1] OS: Fuzzy Intelligent Systems (1)

Chair: Chin-Wang Tao (National Ilan University, Taiwan)

10:00-10:20 Design and Implementation of a Interval Type-2 Adaptive Fuzzy Controller for a Novel Pneumatic Active Suspension System

Yi-Hsun Lo, Rui-Peng Chen, Lian Wang Lee, I-Hsum Li, and Ya-Dung Pan

10:20-10:40 A Novel Approach for Linear Interval Regression Models with Fuzzy Weights

Jin-Tsong Jeng, Chih-Ching Hsiao, Chen-Chia Chuang, Chih-Wen Li, Chen-Xiang Zhang, and Chih-Chi Lin

10:40-11:00 Chaos Synchronization Using Brain-Emotional-Learning-Based Fuzzy Control

Chun-Fei Hsu, Chien-Ting Su, and Tsu-Tian Lee

[Su5-1] OS: Advanced Biomedical Engineering

Chair: Kouki Nagamune (Fukui University, Japan)

Co-Chair: Syoji Kobashi (University of Hyogo, Japan)

10:00-10:20 Filtering Effects for Image Data Types in Image Analysis Using Subspace Classifier

Nobuo Matsuda, Fumiaki Tajima, and Hildeaki Sato

10:20-10:40 A Development of Evaluation System for Pelvic Belt by Using Force Sensor

Kouki Nagamune and Keisuke Oe

10:40-11:00 Implanted Knee Kinematics Analysis by 2-D/3-D Registration Using Particle Filter

Kento Morita, Manabu Nii, Fumiaki Imamura, Takatoshi Morooka, Shinichi Yoshiya, and Syoji Kobashi

[Su6-1] OS: Intelligent Sensors and Its Application

Chair: Suk-seung Hwang (Chosun University, Korea)

10:00-10:20 Preliminary Study for Biometric Based on Gait Pattern Analysis Using Insole-Type Force Sensor

Hangsik Shin

10:20-10:40 Development of RFID Reader and BLE Module for Pole Management using Smart Phone

Jaepyoung Kim, Youngchul Bae, and Young Woo Shon

10:40-11:00 Approximation-Free Observer for Underactuated Surface Vessels

Bong Seok Park

**11:00-11:20 Break**

**11:20-12:20 Parallel Sessions**

[Su2-2] OS: Practical Applications of Intelligent Systems (2)

Chair: Kyung Mi Lee (Sungkyunkwan University, Korea)

11:20-11:40 Recurrent Neural Network for Storytelling

YunSeok Choi, Suah Kim, and Jee-Hyong Lee

11:40-12:00 Collective Matrix Factorization Using Tag Embedding for Effective Recommender System

Hanbyul Bang and Jee-Hyong Lee

12:00-12:20 Analysis on Toddlers' Mean Length of Utterance and Type-Token Ratio by their Gender and Maternal Conversational Style

Miyoung Sung, Young-Eun Chang, and Moon-Soo Chang

[Su3-2] OS: Interactive Systems (2)

Chair: Jun-ichi Imai (Chiba Institute of Technology, Japan)

11:20-11:40 Do You Follow Angel Agent's Advice? A Pilot Study for Decision Making Support by Multiple Animated Agents

Masahide Yuasa

11:40-12:00 Performance Evaluation of a Kansei Retrieval Agent Model with Neural Networks

Hiroshi Takenouchi and Masataka Tokumaru

12:00-12:20 Creation of Warning Sound by Vote of Multiple Users Based on Interactive Differential Evolution:

Discussion toward Effective IECs Creating of Media Contents Suited

Makoto Fukumoto

[Su4-2] OS: Fuzzy Intelligent Systems (2)

Chair: Chin-Wang Tao (National Ilan University, Taiwan)

11:20-11:40 iOS-Based People Detection of Multi-Object Detection System

Ze-Si Huang, Chen-Chia Chuang, Chin-Wang Tao, Min-Yeh Hsieh, Chen-Xiang Zhang and Chia-Wen Chang

11:40-12:00 A Novel Steering Control via Gravity Position: Vehicle Control by Driver's Seat

Chung-Neng Huang, Jenn-Kun Kuo, and Chen-Chia Chuang

12:00-12:20 SoPC-Based Evolutionary BFO Computing and Its Application to Tracking Control of Mecanum

Mobile Robots

Hsu-Chih Huang, Chin-Wang Tao, Chang-Han Wu, and Jin-Tsong Jeng

12:20-12:40 Obstacle Avoidance Path Design of Wheeled Mobile Robot

Chin-Chi Chiu, Wei-Jen Chen, Mei-Yung Chen

[Su5-2] OS: New Generation Computing Paradigm

Chair: Kei Ohnishi (Kyushu Institute of Technology, Japan)

Co-Chair: Akihiro Fujiwara (Kyushu Institute of Technology, Japan)

11:20-11:40 A Generation Gap Model for a Human-Based Evolutionary Algorithm Using a Tag Cloud

Masatomo Azumaya and Kei Ohnishi

11:40-12:00 Solving Subset Sum Problem Using EN P System with Active Membranes

Tomohiro Shiiba and Akihiro Fujiwara

12:00-12:20 Experimental Evaluation of Approximation Algorithms for Maximum Distance-Bounded Subgraph

Problems

Yuichi Asahiro, Tomohiro Kubo, and Eiji Miyano

## Table of Plenary and Invited Talks

<b>Plenary Talks</b>	
<b>August 26 (Fri) 9:20-10:20</b>	<b>Chair: Takahiro Yamanoi</b>
<b>Prof. Michel Grabisch:</b>	<b>Multicriteria Decision Making with Interacting Criteria</b>
<b>August 26 (Fri) 13:10-14:10</b>	<b>Chair: Byung-Jae Choi</b>
<b>Prof. Seong G. Kong:</b>	<b>Machine Learning for Computer Vision</b>
<b>August 27 (Sat) 9:00-10:00</b>	<b>Chair: Takahiro Yamanoi</b>
<b>Dr. Kazuo Iwano:</b>	<b>Reality 2.0 and Wisdom Computing – Our Vision Toward the Future</b>
<b>August 28 (Sun) 8:40-9:40</b>	<b>Chair: Yasuo Kudo</b>
<b>Prof. Peter Sinčák:</b>	<b>Cloud Based Intelligent Robotics</b>

<b>Invited Talks</b>	
<b>August 26 (Fri) 14:30-15:30</b>	<b>Chair: Toshihiko Watanabe</b>
<b>Prof. Takehisa Onisawa:</b>	<b>Interactive Design Support System Using Kansei Information</b>
<b>August 26 (Fri) 16:30-17:30</b>	<b>Chair: Masahiro Inuiguchi</b>
<b>Prof. Motohide Umano:</b>	<b>Dynamic Fuzzy Q-learning with Forgetting Facility</b>
<b>August 27 (Sat) 10:20-11:20</b>	<b>Chair: Jung Sik Jeong</b>
<b>Dr. Sang Wan Lee:</b>	<b>Brain-inspired Artificial Intelligence: Model-based and Model-free Control</b>
<b>August 27 (Sat) 13:10-14:10</b>	<b>Chair: Syoji Kobashi</b>
<b>Prof. Min-sung Koh:</b>	<b>(Multivariate) Empirical Mode Decomposition Filter Banks and a Quintet Singular Value Decomposition</b>
<b>August 27 (Sat) 16:20-17:20</b>	<b>Chair: Young Im Cho</b>
<b>Prof. Frank Chung-Hoon Rhe:</b>	<b>Visual Analysis and Representations of Type-2 Fuzzy Membership Functions</b>

## Table of the Chairpersons of OS & GS

August 26 (Fri) 10:40-12:00					
Fr2-1	Fr3-1	Fr4-1	Fr5-1	Fr6-1	Fr7-1
Junji Nishino	Yoshiko Hanada	Akira Notsu	Motonori Doi Yoshimichi Ito	Yukinobu Hoshino	Sangheon Han
August 26 (Fri) 14:30-16:10					
Fr2-2	Fr3-2	Fr4-2	Fr5-2	Fr6-2	Fr7-2
Norikazu Ikoma	Shinya Watanabe	Yasuo Kudo	Kazuhiro Takeyasu Tomoharu Nakashima	Tomoe Entani	Jae-Young Pyun Suk-seung Hwang
August 26 (Fri) 16:30-17:50					
Fr2-3	Fr3-3	Fr4-3	Fr5-3	Fr6-3	
Yoichiro Maeda Tomohiro Yoshikawa	Yusuke Nojima	Chu Kiong Loo	Jung Sik Jeong Yukinobu Hoshino	Tetsuya Hoya	
August 27 (Sat) 10:20-12:00					
Sa2-1	Sa3-1	Sa4-1	Sa5-1	Sa6-1	Sa7-1
Tetsuya Kojima	Young J. Ryoo	Katsuhiro Honda	Suguru N Kudoh Isao Hayashi	Byung-Jae Choi Noboru Takagi	Takamasa Akiyama
August 27 (Sat) 13:10-14:50					
Sa2-2	Sa3-2	Sa4-2	Sa5-2	Sa6-2	Sa7-2
Hideaki Touyama Hironobu Takano	Yasunori Takemura	Tomoe Entani Masahiro Inuiguchi	Isao Hayashi Suguru N Kudoh Hidekatsu Ito	Daisuke Kitakoshi	Masataka Tokumaru
August 27 (Sat) 15:05-16:05 Poster Session (Coordinator: Hirosato Seki)					
August 27 (Sat) 16:20-18:00					
Sa2-3	Sa3-3	Sa4-3	Sa5-3	Sa6-3	Sa7-3
Tomohiro Yoshikawa Yoichiro Maeda	Choonsung Shin	Yasunori Endo	Hidekatsu Ito	Young Im Cho Jung-Sook Kim	Kisung Seo Wei Huang
August 28 (Sun) 10:00-11:00					
Su2-1	Su3-1	Su4-1	Su5-1	Su6-1	
Keon Myung Lee	Makoto Fukumoto	Chin-Wang Tao	Kouki Nagamune Syoji Kobashi	Suk-seung Hwang	
August 28 (Sun) 11:20-12:20					
Su2-2	Su3-2	Su4-2	Su5-2		
Kyung Mi Lee	Jun-ichi Imai	Chin-Wang Tao	Kei Ohnishi Akihiro Fujiwara		

We thank all the chairpersons for their kind cooperation and efforts.