

Day 1

Saturday, November 9, 2024

**Young Research Invited Talk 1:
Adaptive Resonance Theory-based Topological Clustering and its Applications**

by Dr. **Naoki Masuyama**
(Osaka Metropolitan University, Japan)

Nov. 9 (Saturday) 14:30-15:30, **Room A**

**Invited Talk 2:
Artificial Intelligence Assisted Medical Image Analysis**

by Dr. **Kento Morita**
(Mie University, Japan)

Nov. 9 (Saturday) 15:45-16:45, **Room A**

**Invited Talk 3:
Designing Interactions between Humans and Computational Agents**

by Dr. **Yotaro Fuse**
(Toyama Prefectural University, Japan)

Nov. 9 (Saturday) 17:00-18:00, **Room A**

Welcome Reception

Nov. 9 (Saturday) 18:30-20:30, **Room F+G+H**

Day 2

Sunday, November 10, 2024

Opening Ceremony

Nov. 10 (Sunday) 8:50-9:00, **Room A**

Plenary Talk 1: Securing the Future: Ensuring AI Security

by Dr. **Patrick Chan**
(South China University of Technology, China)

Nov. 10 (Sunday) 9:00-10:10, **Room A**
Chair: Tadahiko Murata (Osaka University, Japan)

S-1-A [SS-06] Artificial Intelligence for Medical/Healthcare Systems

Nov. 10 (Sunday) 10:30-12:30 **Room A**
Chair: Daisuke Fujita (University of Hyogo)

1. [Full paper] **Development of Gait Classification System Using Six-Axis Inertial Sensors by CNN-LSTM** (ID:120)
Shotaro Ohno (University of Fukui); Kouki Nagamune (University of Hyogo)
2. [Full paper] **Analysis of Placental Oxygenation in BOLD MRI for Fetal Growth Restriction Estimation** (ID:193)
Kentaro Nishida (Mie University); Kento Morita (Mie University); Naosuke Enomoto (Mie University); Shoichi Magawa (Mie University); Masafumi Nii (Mie University); Tetsushi Wakabayashi (Mie University)
3. [Full paper] **Estimation of the Degrees of Tilt of the Upper Body Postural Body Axis Using Optical Motion Analyzer** (ID:60)
Shota Yamada (University of Fukui); Kouki Nagamune (University of Hyogo); Taisei Inoue (University of Fukui Hospital); Masafumi Kubota (Kanazawa University); Hideaki Matsuo (University of Fukui Hospital)
4. [Full paper] **Survival Time Prediction of Patients with Soft Tissue Tumor Using Biopsy Pathological Images** (ID:196)
Kota Takahashi (Mie University); Kento Morita (Mie University); Tomohito Hagi (Mie University Hospital); Tomoki Nakamura (Mie University Hospital); Kunihiro Asanuma (Mie University Hospital); Akihiro Sudo (Mie University Hospital); Tetsushi Wakabayashi (Mie University)
5. [Full paper] **Frequency Analysis for Measuring Tremor with VR Nose-Finger Test Based on Optical Device** (ID:78)
Azuma Shiraiwa (University of Fukui); Kouki Nagamune (University of Hyogo); Masafumi Kubota (Kanazawa University); Hideaki Matsuo (University of Fukui Hospital)
6. [Short paper] **Prediction of Parametrial Invasion of Cervical Cancer Using Radiomics and CNN Features** (ID:227)
Yukina Nishigaki (Mie University); Kento Morita (Mie University); Kenta Yoshida (Mie University); Eiji Kondo (Mie University); Tetsushi Wakabayashi (Mie University)

S-1-B [SS-22]

Legal Issues on the Generative AI

Nov. 10 (Sunday) 10:30-11:00 **Room B**

Chair: Jung-Sook Kim (Kimpo University)

1. [Late Breaking paper] **Discussion on the Use of Generative AI Outputs and Trade Secret Protection** (ID:508)
Jung-Sook Kim (Kimpo University)
2. [Late Breaking paper] **Artificial Intelligence Based Synthetic Content Transparency - Stakeholders on Watermark -** (ID:507)
JungWon Shin (Telecommunications Technology Association); JaeYoung Hwang (Telecommunications Technology Association)

S-1-B [SS-10]

Soft Computing and Artificial Intelligence

Nov. 10 (Sunday) 11:00-12:30 **Room B**

Chair: Nobuaki Kobayashi (Nihon University)

1. [Full paper] **Generation of Natural Language Responses to Questions about the Relationship between Two Time-series Data** (ID:261)
Yukako Nakano (Ochanomizu University); Ichiro Kobayashi (Ochanomizu University)
2. [Full paper] **Proposal of a Long-Text Generation Method Considering Article Structure Using ChatGPT** (ID:85)
Nastuki Sawasaki (University of the Ryukyus); Satoshi Endo (University of the Ryukyus)
3. [Short paper] **Semantics Indoor Navigation Using A Path Finding And Spatial Mapping for Assisting Visually Impaired Person** (ID:208)
Bismark K. Asiedu Asante (Soka University); Hiroki Imamura (Soka University)
4. [Short paper] **CAWA: Correlation-based Adaptive Weight Adjustment via Effective Fields for Debiasing** (ID:200)
Kyoungrae Noh (Sungkyunkwan University); San Kim (Sungkyunkwan University); Jaekwang Kim (Sungkyunkwan University)

S-1-C [SS-17]

Artificial Intelligence Application for Image Processing

Nov. 10 (Sunday) 10:30-12:30 **Room C**

Chair: Tohru Kamiya (Kyushu Institute of Technology)

1. [Full paper] **Registration of Spinal Region on CT Images Based on SuperPoint with Convolutional Block Attention Module** (ID:109)
Kenta Nabeshima (Kyushu Institute of Technology); Takashi Terasawa (University of Occupational and Environmental Health); Tohru Kamiya (Kyushu Institute of Technology); Takatoshi Aoki (University of Occupational and Environmental Health)
2. [Full paper] **Registration Method for Head CT and MR Images Based on TransMorph Incorporated ASPP** (ID:67)
Tomoaki Murakami (Kyushu Institute of Technology); Akiyoshi Yamamoto (Tobata Kyoritsu Hospital); Tohru Kamiya (Kyushu Institute of Technology)

3. [Full paper] **A Denoising Method from Low-dose CT Images Based on Improved U-Net with Attention Mechanism** (ID:65)
Shuji Sawada (Kyushu Institute of Technology); Guangxu Li (Tiangong University); Seiichi Murakami (Junshin Gakuen University); Tohru Kamiya (Kyushu Institute of Technology)
4. [Short paper] **Detection of Temporal Changes from Satellite Images Based on Improved SNUNet-CD** (ID:106)
Yudai Watanabe (Kyushu Institute of Technology); Tohru Kamiya (Kyushu Institute of Technology)
5. [Short paper] **Super Resolution of Remote Sensing Image Using Improved SwinIR** (ID:103)
Shun Matsumoto (Kyushu Institute of Technology); Tohru Kamiya (Kyushu Institute of Technology)

S-1-D [GS-07]

Machine Learning/Data Mining

Nov. 10 (Sunday) 10:30-12:30 **Room D**

Chair: Shinya Watanabe (Muroran Institute of Technology)

1. [Full paper] **A Shape-Based Similarity Calculation Method for Cost Estimation of Large Forged Steel Products** (ID:251)
Shunga Matsuo (Muroran Institute of Technology); Satoshi Kondo (Muroran Institute of Technology); Yusuke Imamura (Japan Steel Works M&E, Inc.); Kenji Takase (Japan Steel Works M&E, Inc.); Shinya Watanabe (Muroran Institute of Technology)
2. [Full paper] **DFedMD: Decentralized Federated Learning using Model Distillation** (ID:182)
Shouta Abiru (Hiroshima City University); Keiichi Tamura (Hiroshima City University)
3. [Full paper] **Cancer Risk Evaluation with Diabetes Mellitus by a Large Medical Claims Dataset** (ID:7)
Keita Fukuyama (Kyoto University Hospital); Yukiko Mori (Kyoto University Hospital); Tomohiro Kuroda (Kyoto University Hospital); Hiroaki Kikuchi (Meiji University)*
4. [Full paper] **Filtrate Estimation from Filter Press Process in a Water Treatment Facility based on Image Analysis** (ID:218)
Poltak Sandro Rumahorbo (Muroran Institute of Technology); Stefan Baar (Muroran Institute of Technology); Satoshi Kondo (Muroran Institute of Technology); Nobuhiro Yazawa (Tsukishima JFE Aqua Solution Co., Ltd.); Hiroki Ito (Tsukishima JFE Aqua Solution Co., Ltd.); Jun Sugimoto (Tsukishima JFE Aqua Solution Co., Ltd.); Yoshifumi Okada (Muroran Institute of Technology); Kazuhiko Sato (Muroran Institute of Technology); Shinya Watanabe (Muroran Institute of Technology)
5. [Short paper] **Estimating Shape and Size of Objects based on Experts' Visual Perception** (ID:234)
Keiichi Obayashi (OMRON Corporation); Sho Sasaki (OMRON Corporation); Shinichi Hosomi (OMRON Corporation); Hiroshi Nakajima (Tokyo Metropolitan University)
6. [Late Breaking paper] **A Top-N Recommendation System for Traveling with Companion Animals in Gangwon State, South Korea** (ID:502)
Hye-Rim Ju (Kyungnam University); Wang-Su Jeon (Kyungnam University); Sang-Yong Rhee (Kyungnam University)

S-1-E [GS-14]

Evolutionary Computation

Nov. 10 (Sunday) 10:30-12:30 **Room E**

Chair: Masataka Tokumaru (Kansai University)

1. [Full paper] **Generating Adversarial Examples for 3D Point Clouds Using Evolutionary Algorithms** (ID:91)
Akira Takahashi (Niigata University); Chao Zhang (University of Toyama); Jun Yu (Niigata University)
2. [Full paper] **Simplified Multiplayer Battle Game-inspired Optimizer with Diverse Search Strategies** (ID:17)
Shilong Zhang (Niigata University); Yuefeng Xu (Niigata University); Rui Zhong (Hokkaido University); Chao Zhang (University of Toyama); Jun Yu (Niigata University)
3. [Full paper] **Optimization Performance Analysis of Different Initialization Methods in Single-objective and Multi-objective Chaotic Evolution** (ID:69)
Xiaoyi Zhang (University of Aizu); Yan Pei (University of Aizu); Huiyan Jiang (Northeastern University)
4. [Short paper] **Investigating Global Search Performance of Multi-Objective Genetic Algorithm based on Innately Split Model** (ID:172)
Kohei Oda (Japan Advanced Institute of Science and Technology); Yoshiko Hanada (Kansai University); Yukiko Orito (Tamagawa University)
5. [Short paper] **An IEC-driven Optimization of Gestures to Enhance Personality Traits in Communication Robots** (ID:173)
Ryoto Mikawa (Kansai University); Emmanuel Ayedoun (Kansai University); Masataka Tokumaru (Kansai University)

S-1-F [SS-20]

Fusion of Physical-based Model and Data-driven Model

Nov. 10 (Sunday) 10:30-12:30 **Room F**

Chair: Youngchul Bae (Chonnam National University), Yong-Tae Kim (Hankyong National University)

1. [Short paper] **Loss Balancing for Physics-Informed Neural Networks Considering Procedure for Solving Partial Differential Equations** (ID:18)
Manabu Kojima (Nagaoka University of Technology); Kazuma Otsuki (Nagaoka University of Technology); Masato Suzuki (Nagaoka University of Technology); Masajiro Abe (Nagaoka University of Technology); Masaaki Baba (Nagaoka University of Technology); Kazuya Yokota (Nagaoka University of Technology)
2. [Abstract-only paper] **Deep Learning Model and Construction of Learning Dataset for Citrus Harvesting** (ID:215)
Hyun-Jung Hwang (Hankyong National University); Jae-Hoon Cho (Hankyong National University); Yong-Tae Kim (Hankyong National University)
3. [Abstract-only paper] **Optimal Model Combination for Precipitation Based River Discharge Prediction** (ID:269)
Gwiman Bak (Chonnam National University); Eunseo Lee (Chonnam National University); Eunseong Lee (Chonnam National University); Youngchul Bae (Chonnam National University)

4. [Abstract-only paper] **Comparison of Turbidity Prediction using PNP and CNN in Water Treatment Plants** (ID:270)
Eunseong Lee (Chonnam National University); Gwiman Bak (Chonnam National University); Eunseo Lee (Chonnam National University); Youngchul Bae (Chonnam National University)
5. [Abstract-only paper] **Prediction of CRF Encoding File Size Using Artificial Neural Networks Considering Various Video features, Complexity, and Movements Features** (ID:271)
Hankaram Choi (Chonnam National University); Gwiman Bak (Chonnam National University); Eunseo Lee (Chonnam National University); Eunseong Lee (Chonnam National University); Youngchul Bae (Chonnam National University)
6. [Abstract-only paper] **Detection and Analysis of Bid Rigging Patterns Using Statistical Methods** (ID:272)
Eunseo Lee (Chonnam National University); Gwiman Bak (Chonnam National University); Eunseong Lee (Chonnam National University); Youngchul Bae (Chonnam National University)

S-1-G [SS-02]

Continual Learning and Emergence of Intelligent Systems

Nov. 10 (Sunday) 10:30-12:30 **Room G**

Chair: Yuichiro Toda (Okayama University), Takeru Aoki (Tokyo University of Science)

1. [Short paper] **Sound Source Separation of Japanese Tree Frog (*Hyla japonica*) and Black-spotted Pond Frog (*Pelophylax nigromaculatus*)** (ID:289)
Hinata Matsubara (Tokyo University of Agriculture and Technology); Shinji Fukuda (Tokyo University of Agriculture and Technology)
2. [Abstract-only paper] **Determination of Codeword Lengths in Unsupervised Continual Learning through Clustering** (ID:298)
Takanori Takebayashi (Osaka Metropolitan University); Naoki Masuyama (Osaka Metropolitan University); Yusuke Nojima (Osaka Metropolitan University)
3. [Abstract-only paper] **Deep Learning for Identifying Territorial Male Behavior in *Pseudorasbora Parva*** (ID:293)
Shunsuke Fujimori (Tokyo University of Agriculture and Technology); Shinji Fukuda (Tokyo University of Agriculture and Technology)
4. [Abstract-only paper] **Noise Removal for Fish Habitat Assessment using the National Census of River Environments** (ID:296)
Kosei Ogawa (Tokyo University of Agriculture and Technology); Shinji Fukuda (Tokyo University of Agriculture and Technology)
5. [Abstract-only paper] **Assessing Flow-Habitat Relationships in the Upper Kumagawa River: Insights from Large, Long-Term Open Data** (ID:299)
Shinji Fukuda (Tokyo University of Agriculture and Technology); Nanami Koto (Tokyo University of Agriculture and Technology)
6. [Abstract-only paper] **The characteristics of spatial distribution of fish habitats based on two-dimensional ecohydraulic modelling** (ID:297)
Nanami Koto (Tokyo University of Agriculture and Technology); Shinji Fukuda (Tokyo University of Agriculture and Technology);

S-1-H [GS-06]
Modeling and Simulation

Nov. 10 (Sunday) 10:30-12:30 **Room H**

Chair: Toshihiro Irie (Nihon University)

1. [Full paper] **Study of chromatograph parts using a 3D printer and separation motion trajectories** (ID:232)
Tomoki Nishikawa (Nihon University); Toshihiro Irie (Nihon University)
2. [Full paper] **Improving Prototype Intelligent Tactical Board for Rugby Sevens** (ID:118)
Kotaro Yashiro (Meiji University); Soma Hirose (Meiji University); Yohei Nakada (Meiji University)
3. [Abstract-only paper] **Refining Kick-pass Simulation Model Used in Optimal Kick-pass Plan Computation Method for Rugby Sevens** (ID:36)
Yu Tokutake (Meiji University); Kotaro Yashiro (Meiji University); Yohei Nakada (Meiji University)
4. [Abstract-only paper] **Defensive Movements Evaluation Method in Soccer Utilizing Geometric Formation Features and Statistical Classification Model** (ID:35)
Kento Osawa (Meiji University); Yohei Nakada (Meiji University)
5. [Abstract-only paper] **Reforming network routes using phase changes in slime molds** (ID:90)
Megumi Uza (University of the Ryukyus); Itsuki Kunita (University of the Ryukyus)
6. [Abstract-only paper] **Impact of Shepherd Interaction on Flock Dynamics in Multi-Shepherding** (ID:96)
Keigo Nakada (University of the Ryukyus); Akiko Matsumoto-Oda (University of the Ryukyus); Itsuki Kunita (University of the Ryukyus)
7. [Abstract-only paper] **Relationship between the Proportion of Agents with Different Repulsion Distances and Their Spatial Arrangement** (ID:97)
Nonoka Homma (University of the Ryukyus); Akiko Matsumoto-Oda (University of the Ryukyus); Itsuki Kunita (University of the Ryukyus)

**Young Research Invited Talk 4:
Cognitive Rehabilitation through 'Computational Systems Rehabilitation'**

by Dr. **Takenori Obo** (Tokyo Metropolitan University, Japan)

Nov. 10 (Sunday) 12:40-14:00, **Room A**

S-2-A [SS-06]

Artificial Intelligence for Medical/Healthcare Systems

Nov. 10 (Sunday) 14:00-16:00 **Room A**

Chair: Kento Morita (Mie University)

1. [Full paper] **Measuring changes in posture while walking using a Inertial Sensors** (ID:73)
Yuichi Raihan Kazi (University of Fukui); Kouki Nagamune (University of Hyogo)
2. [Full paper] **Braille Character Recognition Independent of Lighting Direction Using Object Detection Models** (ID:241)
Akihiro Yamashita (National Institute of Technology, Tokyo College); Taichi Shirakawa (Keio University); Katsushi Matsubayashi (National Institute of Technology, Tokyo College)
3. [Full paper] **Differentiating Idiopathic Normal Pressure Hydrocephalus Using Multi-Head Attention CNN with Diversify-Loss in Brain MRI** (ID:288)
Fubuki Sawa (University of Hyogo); Daisuke Fujita (University of Hyogo); Kenichi Shimada (Harima-Himeji General Medical Hospital); Kazunari Ishii (Kindai University); Syoji Kobashi (University of Hyogo)
4. [Full paper] **An Analysis of Patellar Movement and Posture During Stepping Using RGB-D Cameras and Inertial Sensors** (ID:167)
Kaito Moriyasu (University of Fukui); Kouki Nagamune (University of Hyogo)
5. [Late Breaking paper] **Real-Time Bed-Leaving Prediction Using a Six-Axis Inertial Sensor and LSTM** (ID:517)
Noriyasu Kondo (University of Hyogo); Daisuke Fujita (University of Hyogo); Syoji Kobashi (University of Hyogo); Takayuki Fujita (University of Hyogo)
6. [Late Breaking paper] **Preliminary Experiment on Self-Extubation Detection Using LSTM-based Autoencoder with Touch Sensor** (ID:519)
Sodai Yokoyama (University of Hyogo); Daisuke Fujita (University of Hyogo); Takayuki Fujita (University of Hyogo); Syoji Kobashi (University of Hyogo)

S-2-B [SS-18]

Convergence Technology of Signal Processing and Biohealth

Nov. 10 (Sunday) 14:00-16:00 **Room B**

Chair: Suk-seung Hwang (Chosun University)

1. [Full paper] **Movement Classification Method for Awake Bruxism Using sEMG Signals** (ID:197)
Keiichi Sato (University of Tsukuba); Masahiko Mikawa (University of Tsukuba); Makoto Fujisawa (University of Tsukuba)

2. [Short paper] **The Combined Localization Based on TDOA and FDOA for High-Speed Moving Object** (ID:273)
Seul-Bi Jeon (Chosun University); Tae-Ho Jo (Chosun University); Jong-Hwang Park (Soletop Co., Ltd); Suk-seung Hwang (Chosun University)
3. [Short paper] **Beamspace AIC & MDL Algorithm for Based on Concentric Circular Array Antenna** (ID:274)
Hewi-Seon Park (Chosun University); Suk-seung Hwang (Chosun University)
4. [Short paper] **Contact Lens Automatic Optical Inspection Method Based on YOLOv9** (ID:276)
Tae-yun Kim (Chosun University); Bumshik Lee (Chosun University); Suk-seung Hwang (Chosun University)
5. [Abstract-only paper] **Enhancement of Human Hair Growth Through Oxygen Supply Using Perfluorocarbon Nanoemulsions** (ID:151)
Himangsu Mondal (Chosun University); Md Asadujjaman (Chosun University); Eunae Kim (Chosun University); Jun-Pil Jee (Chosun University)
6. [Abstract-only paper] **Photosensitizers for Fluorescence Cell-imaging and Photodynamic Therapy** (ID:154)
Arrhon Mae Bongo (Chosun Univeristy); Hayeon Kim (Chosun Univeristy); Juseon Roh (Chosun Univeristy); Yeji Kim (Chosun Univeristy); Ho-Joong Kim (Chosun University)

S-2-C [SS-17]

Artificial Intelligence Application for Image Processing

Nov. 10 (Sunday) 14:00-16:00 **Room C**

Chair: Tohru Kamiya (Kyushu Institute of Technology)

1. [Full paper] **A Study on Brain Decoding of Image Stimuli Using a Diffusion Model** (ID:249)
Fumi Ishizaki (Ochanomizu University); Ichiro Kobayashi (Ochanomizu University)
2. [Full paper] **Effects of Adversarial Patches Against Object Detection on Combating Cheats in Online First Person Shooter Games** (ID:236)
Ken Matsuhira (The University of Shiga Prefecture); Shun Hattori (The University of Shiga Prefecture); Wataru Sunayama (The University of Shiga Prefecture)
3. [Full paper] **Image Classification using Fuzzy Pooling in Convolutional Kolmogorov-Arnold Networks** (ID:128)
Ayan Igali (Kazakh-British Technical University); Pakizar Shamoii (Kazakh-British Technical University)
4. [Full paper] **Extraction of c-Fos Protein Regions from Mouse Brain Slice Images using Multi-channelization, 1×1 Convolution and U-Net** (ID:32)
Ziyue Wang (University of Tsukuba); Hibiki Okamura (University of Tsukuba); Shijie Luo (University of Tsukuba); Yu Hayashi (University of Tsukuba); Hotaka Takizawa (University of Tsukuba)
5. [Short paper] **LSTM-based Prediction of Ball Trajectory for Automatic Foul Judgements in Kin-Ball Sport** (ID:247)
Shogo Yamashita (University of Shiga Prefecture); Shun Hattori (University of Shiga Prefecture); Wataru Sunayama (University of Shiga Prefecture)

S-2-D [GS-09] Pattern Recognition

Nov. 10 (Sunday) 14:00-16:00 **Room D**

Chair: Masakazu Morimoto (University of Hyogo)

1. [Full paper] **Handwritten Character String Recognition Using Transformer and CNN Features** (ID:153)
Shunya Rakuka (Mie University); Kento Morita (Mie University); Tetsushi Wakabayashi (Mie University)
2. [Full paper] **Aperiodic Multivariate Time-Series Generative Adversarial Network** (ID:16)
Jun Rokui (University of Shizuoka); Yuki Kawashima (Roland DG Corporation)
3. [Full paper] **Health Classification on Oil Palm UAV images using Machine Learning with Features Reduction** (ID:20)
Zi Choong Tee (Tunku Abdul Rahman University of Management and Technology); Lee Choo Tay (Tunku Abdul Rahman University of Management and Technology); Weng Kin Lai (Tunku Abdul Rahman University of Management and Technology); Sheng Siang Lee (Aonic Sdn Bhd)
4. [Full paper] **A Pilot Valve Endoscopic Image Inspection System Using Unsupervised Learning** (ID:14)
Ryosuke Fujiwara (University of Hyogo); Masakazu Morimoto (University of Hyogo)
5. [Full paper] **Improving Sign Gesture Recognition Using Bi-LSTM Attention Model with Optimal Point Cloud Frame Range** (ID:108)
Anocky Eric Kouassi (Hosei University); Yanbo Ma (Pontosense Inc.); Lin Kong (Hosei University); Huang Runhe (Hosei University)
6. [Short paper] **Estimation of Presence or Absence of Learning Understanding Using EEG and ECG Based on CNN Models** (ID:68)
Ryota Miyake (Tokushima University); Shin-ichi Ito (Tokushima University); Momoyo Ito (Tokushima University); Minoru Fukumi (Tokushima University)

S-2-E [SS-24] AI/ML Foundation Models for Next Generation Humanoid

Nov. 10 (Sunday) 14:00-16:00 **Room E**

Chair: Han-Ul Yoon (Yonsei University)

1. [Short paper] **Harvesting Information Estimation Algorithm for Occluded Fruits in Autonomous Open-Field Orchard Robotic Systems** (ID:281)
Jeongil Seo (Korea Institute of Industrial Technology); Jaehyeon Kang (Korea Institute of Industrial Technology); Dongbum Pyo (Korea Institute of Industrial Technology); KwangEun Ko (Korea Institute of Industrial Technology)
2. [Short paper] **A Twin Dual-Arm Robot Testbed to Collect the Human Demonstration Data for Imitation Learning** (ID:307)
Juhyung Kim (Yonsei University); Sungwon Heo (Yonsei University); Songwoo Kim (Yonsei University); Ho-Jin Jung (Yonsei University); Han U. Yoon (Yonsei University)
3. [Short paper] **Predicting Joint Movement Trajectories from the ECoG Signal Patterns of Apes** (ID:308)
Chanjin Park (Yonsei University); Jungwoo Lee (Yonsei University); Seungmin Hyun (Yonsei University); Ho-Jin Jung (Yonsei University); Han U. Yoon (Yonsei University)

4. [Short paper] **A Study on the Effects of ICL and CoT Prompts on the Reward Function Generation of a Small Language Model (ID:26)**
Hyeongyo Jeong (Dong-A University); Haechan Lee (Dong-A University); Sungtae Shin (Dong-A University)
5. [Short paper] **Deep Convolutional Learning-Based Unit Action Recognition for Analyzing Skilled Worker Behavior (ID:277)**
Jungin Kim (Hankyong National University); Su-Gyeong Kim (Hankyong National University); Jimin Lee (Hankyong National University); Nu-Lim Kim (Hankyong National University); Inhoon Jang (Hankyong National University)

S-2-F [SS-03]

Human Symbiotic Systems

Nov. 10 (Sunday) 14:00-16:00 **Room F**

Chair: Tomohiro Yoshikawa (Suzuka University of Medical Science), Tsuyoshi Nakamura (Chubu University)

1. [Full paper] **Effectiveness of RSNPs in Networks Construction of Educational Support Robots (ID:37)**
Shogo Maki (Aichi Prefectural University); Felix Jimenez (Aichi Prefectural University)
2. [Full paper] **Learner's Changes in the Number of Solved Problems and Impression of Collaborative Learning with a Robot Using the Problem-Number Negotiation Method (ID:43)**
Hiroki Kaede (Aichi Prefectural University); Taro Kono (Aichi Prefectural University); Felix Jimenez (Aichi Prefectural University); Tomoki Miyamoto (The University of Electro-Communications)
3. [Full paper] **Effects of Intelligence Test Training Between Robots and University Students (ID:44)**
Ikue Ishikawa (Aichi Prefectural University); Felix Jimenez (Aichi Prefectural University); Mayu Mitani (Nagoya University); Takahiro Nakajima (Nagoya University of Arts and Sciences); Shoko Yoshida (Japanese Red Cross Aichi Medical Center Nagoya Daiichi Hospital)
4. [Full paper] **Driver's Perception of Autonomous Cornering Control based on a Sense of Circular Vision Model (ID:220)**
Ren Degoshi (Toyama Prefectural University); Hiroyuki Masuta (Toyama Prefectural University); Yotaro Fuse (Toyama Prefectural University); Kei Sawai (Toyama Prefectural University); Kenichi Koyanagi (Toyama Prefectural University); Ahmed Almassri (Toyama Prefectural University)
5. [Full paper] **Impressions of Agents Encouraging Humans to Adopt Intentional Stance by Refraining from Action (ID:178)**
Sho Kawai (Toyama Prefectural University); Yotaro Fuse (Toyama Prefectural University); Noboru Takagi (Toyama Prefectural University); Myagmardulam Bilguunmaa (Toyama Prefectural University); Kei Sawai (Toyama Prefectural University); Hiroyuki Masuta (Toyama Prefectural University); Tatsuo Motoyoshi (Toyama Prefectural University)
6. [Full paper] **Evaluation of a Writing Skill Enhancement System Through Dialogue for Children with Developmental Disorders Using Companion Robots (ID:105)**
Sumire Hayashi (University of Fukui); Yasutake Takahashi (University of Fukui); Satoki Tsuchihara (University of Fukui)

S-2-G [SS-02]

Continual Learning and Emergence of Intelligent Systems

Nov. 10 (Sunday) 14:00-16:00 **Room G**

Chair: Yuichiro Toda (Okayama University), Takeru Aoki (Tokyo University of Science)

1. [Full paper] **Image Recognition Imitating Saccadic Eye Movement in Grid Cell Net** (ID:181)
Yuichi Matsuda (The University of Electro-Communications); Kazuma Niwa (The University of Electro-Communications); Takeru Aoki (Tokyo University of Science); Keiki Takadama (The University of Tokyo); Hiroyuki Sato (The University of Electro-Communications)
2. [Short paper] **Global Path Planning based on Rough Terrain Perception using Growing Neural Gas** (ID:134)
Haruka Ozaki (Okayama University); Yuichiro Toda (Okayama University); Dalin Zhou (University of Portsmouth); Takayuki Matsuno (Okayama University)
3. [Short paper] **Development of an underwater environment analysis system based on Neural Network using Omnidirectional Camera** (ID:144)
Kento Utsunomiya (Okayama University); Yuichiro Toda (Okayama University); Takayuki Matsuno (Okayama University)
4. [Short paper] **Case Study on a Navigation System using Growing Neural Gas** (ID:210)
Koki Sakamoto (Okayama University); Yuichiro Toda (Okayama University); Makoto Tsujimoto (Kinden Corporation); Kazuhiko Taniguchi (Kinden Corporation); Takayuki Matsuno (Okayama University)
5. [Abstract-only paper] **A Continual Self-supervised Learning Framework applying a Decoder and a Clustering-based Data Selection Method** (ID:291)
Ryosuke Fujii (Osaka Prefecture University); Naoki Masuyama (Osaka Metropolitan University); Yusuke Nojima (Osaka Metropolitan University)
6. [Abstract-only paper] **Basic Consideration of Federated Rough C-Means Clustering and Its Application to Collaborative Filtering** (ID:171)
Shuichiro Yamashita (Osaka Metropolitan University); Seiki Ubukata (Osaka Metropolitan University); Katsuhiko Honda (Osaka Metropolitan University)

S-2-H [GS-04]

Intelligent Systems/Applications

Nov. 10 (Sunday) 14:00-16:00 **Room H**

Chair: Ryogo Kubo (Keio University)

1. [Full paper] **Automatic generation of soundscapes based on Spatio-temporal keywords and elucidation of soundscapes' impact on human reading experience** (ID:45)
Shan Xue (University of Tsukuba); Hajime Nobuhara (University of Tsukuba)
2. [Full paper] **Faster Algorithms for a Lexicographic Bi-criteria Line Balancing Problem with Totally Ordered Precedence Constraints** (ID:31)
Shinji Imahori (Chuo University); Yoshiyuki Karuno (Kyoto Institute of Technology); Yuma Ueda (Kyoto Institute of Technology)
3. [Short paper] **Meal Guidance System for Visually Impaired People** (ID:217)
Korawee Hirunthakingpant (Kyushu Institute of Technology); Chikamune Wada (Kyushu Institute of Technology)

4. [Short paper] **Development Reading System and Detection of Lesion Candidate in Capsule Endoscopy using YOLOv5** (ID:141)
Tatsuki Ito (University of Yamanashi); Shinji Kotani (University of Yamanashi); Hiromi Watanabe (University of Yamanashi)
5. [Short paper] **AI-DRIVEN VIRTUAL MOCK INTERVIEW DEVELOPMENT** (ID:313)
Prabhat Kumar Mishra (VIT University); Arun Kumar Arulappan (VIT University); In-Ho Ra (Kunsan National University); Thanga Mariappan L (VIT University); Gina Rose G (Anna University); Young-Seok Lee (Kunsan National University)
6. [Abstract-only paper] **Reliable Motion Control over Optical Ring Networks Based on Communication and Control Co-Design** (ID:168)
Shogo Nagae (Keio University); Ryogo Kubo (Keio University)

S-3-A [SS-06]

Artificial Intelligence for Medical/Healthcare Systems

Nov. 10 (Sunday) 16:15-18:15 **Room A**

Chair: Kouki Nagamune (University of Hyogo)

1. [Full paper] **Estimation of Lymph Node Metastasis in Cervical Cancer Using Deep Learning** (ID:254)
Ryunosuke Kori (Mie University); Kento Morita (Mie University); Kenta Yoshida (Mie University); Eiji Kondo (Mie University); Tetsushi Wakabayashi (Mie University)
2. [Full paper] **Development of a Virtual Patient Model for Kampo Medical Interview: New Approach for Enhancing Empathy and Understanding of Kampo Medicine Pathological Concepts** (ID:190)
Tomoki Takada (Toyama Prefectural University); Rie Yamada (University of Toyama); Antonio Rene (Toyama Prefectural University); Kuangzhe Xu (Hirosaki University); Makoto Fujimoto (University of Toyama)
3. [Full paper] **Prediction of Cardiovascular Disease Development for CEA Patients Using Multimodal Learning** (ID:198)
Shuya Ishida (Mie University); Kento Morita (Mie University); Kinta Hatakeyama (National Cerebral and Cardiovascular Center); Nice Ren (National Cerebral and Cardiovascular Center); Shogo Watanabe (National Cerebral and Cardiovascular Center); Syoji Kobashi (University of Hyogo); Koji Ihara (National Cerebral and Cardiovascular Center); Tetsushi Wakabayashi (Mie University)
4. [Abstract-only paper] **Leveraging Multi-Task Models for Liver Lesion Segmentation and Classification on Multi-Phase CT Images** (ID:140)
Tzu-Hsiu Lee (National Taipei University of Technology); Sung-Hua Chiu (National Taipei University of Technology); Chao-Cheng Wu (National Taipei University of Technology); Wei-Chou Chang (Tri-Service General Hospital); Hsiao-Chi Li (National Taipei University of Technology)
5. [Short paper] **Development of a model for discriminating electroencephalograms of patients with mild cognitive impairment and healthy individuals using a support vector machine** (ID:92)
Akifumi Tanabe (University of Hyogo); Kyosuke Nakatani (University of Hyogo); Kento Harachi (Tokyo Institute of Technology); Yusuke Yamamoto (Aino University); Ayumi Muramatsu (University of Hyogo); Hajime Nagahara (Osaka University); Noriko Takemura (Kyushu Institute of Technology); Shinji Shimojo (Aomori University); Daisuke Furihata (Osaka University); Yuko Mizuno-Matsumoto (University of Hyogo); Kazue Kamae-Shigenobu (Asakayama General Hospital); Kazuhiro Shinosaki (Asakayama General Hospital)

S-3-B [SS-11]

Diversity, Equity & Inclusion (DE&I) in Soft Computing

Nov. 10 (Sunday) 16:15-18:15 **Room B**

Chair: Tomoe Entani (University of Hyogo)

1. [Abstract-only paper] **Empowering Research and Researchers through DEI: SOFT's Initiatives** (ID:158)
Tomoe Entani (University of Hyogo)
2. [Abstract-only paper] **Mutual Aid through Team Activity Based on Interval DEA** (ID:129)
Honoka Koike (University of Hyogo); Tomoe Entani (University of Hyogo);

3. [Late Breaking paper] **Decision-making Study on Non-verbal Communication dataset** (ID:522)
Dian Christy Silpani (Kyushu Institute of Technology); Kaori Yoshida (Kyushu Institute of Technology)
4. [Abstract-only paper] **Data Science for Female Infertility Treatment on Diversity, Equity, and Inclusion** (ID:179)
Naomi Yagi (University of Hyogo); Yuya Kinishi (University of Hyogo); Kentaro Mori (National Institute of Technology, Maizuru College); Shimpei Mizuta (Reproduction Clinic Tokyo); Tomohiro Maekawa (Reproduction Clinic Tokyo); Takashi Morimoto (Reproduction Clinic Tokyo); Tomomoto Ishikawa (Reproduction Clinic Tokyo); Yutaka Hata (University of Hyogo)
5. [Abstract-only paper] **Enhancing Global Competitiveness and Sustainability through Horizon Europe and Copernicus Marine Service** (ID:130)
Asuka Yamakawa (Institute of Marine Research)
6. [Abstract-only paper] **DE&I Activities at Soft Computing and Computational Intelligence Society** (ID:163)
Hiroshi Nakajima (Tokyo Metropolitan University)

S-3-D [GS-01]

Artificial Intelligence

Nov. 10 (Sunday) 16:15-18:15 **Room D**

Chair: Pakizar Shamoï (Kazakh-British Technical University)

1. [Full paper] **Universal vs. Contextual Color-Emotion Associations: A Fuzzy Approach** (ID:260)
Muragul Muratbekova (Kazakh-British Technical University); Pakizar Shamoï (Kazakh-British Technical University)
2. [Full paper] **Comparative Foot Traffic Analysis During Normal Periods and Firework Events Using Wi-Fi Sensors** (ID:239)
Peerada Traganmaturapot (Chulalongkorn University); Noboru Sonehara (Tsuda University); Nobuharu Hiruma (AREAPORTAL, INC); Nagul Coocharojananone (Chulalongkorn University); Akihisa Kodate (Tsuda University); Kanokwan Atchariyachanvanich (King Mongkut's Institute of Technology Ladkrabang)
3. [Full paper] **Extraction and Classification of Lung Nodule Features Using Fusion Method of Self-supervised Encoder Learning and Supervised Transfer Learning** (ID:62)
Siqiao Yi (Northeastern University); Huiyan Jiang (Northeastern University); Yang Zhou (Northeastern University); Guoyu Tong (Northeastern University); Rongfei Zeng (Northeastern University); Xian-Hua Han (Rikkyo University); Yan Pei (University of Aizu)
4. [Abstract-only paper] **Category Theory and Knowledge Graphs: Concept Construction for Intelligent Systems** (ID:253)
Marek Z. Reformat (University of Alberta); Tim Put (University of Alberta)

S-3-E [GS-15]

Human-Computer Interaction and Interface

Nov. 10 (Sunday) 16:15-18:15 **Room E**

Chair: Jinseok Woo (Tokyo University of Technology)

1. [Full paper] **Subjective Evaluation of Dialogues with Dyadic and Triadic Interactions using a ChatGPT-based Dialogue System** (ID:29)
Kaori Abe (Kobe University); Changqin Quan (Kobe University); Sheng Cao (Kobe University); Zhiwei Luo (Kobe University)
2. [Full paper] **Development of a Gesture Analysis System for Human System Interaction** (ID:112)
Chifuyu Matsumoto (Tokyo University of Technology); Yuka Sone (Tokyo University of Technology); Jinseok Woo (Tokyo University of Technology); Yasuhiro Ohyama (Tokyo University of Technology)
3. [Full paper] **Virtual Agent driven Peer Learning System to Enhance Exercise Motivation** (ID:202)
Seiya Sakaguchi (Kansai University); Emmanuel Ayedoun (Kansai University); Masataka Tokumaru (Kansai University)
4. [Full paper] **Discrimination between command and drawing strokes for sketch-based CAD interfaces based on fuzzy spline curve fragmentation** (ID:145)
Satoshi Warita (Muroran Institute of Technology); Sato Saga (Muroran Institute of Technology)
5. [Short paper] **Passing Practice Support for Soccer Players using First-person Videos** (ID:195)
Nobuyuki Umezu (Ibaraki University); Yuya Imada (Ibaraki University)

S-3-F [SS-03]

Human Symbiotic Systems

Nov. 10 (Sunday) 16:15-18:15 **Room F**

Chair: Tomohiro Yoshikawa (Suzuka University of Medical Science), Tsuyoshi Nakamura (Chubu University)

1. [Full paper] **Learning Effects of Programming Educational Board Game in Collaborative Learning Between Robots and Humanities Students** (ID:80)
Tomoki Inoue (Aichi Prefectural University); Felix Jimenez (Aichi Prefectural University); Mamoru Onuki (Aichi Prefectural University)
2. [Full paper] **Simulation Results of a Spatio-Temporal Perplexion Estimation Method based on learners' Facial Expression Changes** (ID:133)
Koki Sato (Aichi Prefectural University); Kohei Okawa (ABeam Systems Ltd.); Felix Jimenez (Aichi Prefectural University); Shuichi Akizuki (Chukyo University); Tomohiro Yoshikawa (Suzuka University of Medical Science)
3. [Full paper] **Effects of Gait Onomatopoeia on the Impression of Robots** (ID:159)
Takumi Umeda (Chukyo University); Masayoshi Kanoh (Chukyo University)
4. [Full paper] **Two-dimensional display-based the Proteus effect on muscle activity level** (ID:162)
Tomoaki Kurata (Chukyo University); Masayoshi Kanoh (Chukyo University)
5. [Short paper] **Analysis of sound symbolism appears in JoJo's Bizarre Adventure** (ID:189)
Tsuyoshi Nakamura (Chubu University); Yu Gennami (Chubu University); Akinori Yoshikane (Chubu University)

6. [Late Breaking paper] **Investigation of Accuracy of CNN-Based EEG Classification for Third Hand Control with BMI** (ID:506)
Taiki Mishima (Nagoya Institute of Technology); Kazuki Imamura (Nagoya Institute of Technology); Kenji Funahashi (Nagoya Institute of Technology); Shinji Mizuno (Aichi Institute of Technology)

S-3-G [GS-10] Deep Learning

Nov. 10 (Sunday) 16:15-18:15 **Room G**

Chair: Seiki Ubukata (Osaka Metropolitan University)

1. [Full paper] **Graph Convolutional Networks Approach for Alzheimer's Disease Stage Classification Using Multimodal Data** (ID:110)
Hyujeong Jeong (Pukyong National University); Do-Young Kang (Dong-A University); Yeboon Yun (Kansai University); Jum-Ran Kang (Pukyong National University); Min Yoon (Pukyong National University); Gyu-Bin Lee (Pukyong National University & Dong-A University Hospital)
2. [Full paper] **LiDAR Information based High-Speed-High-Accuracy Object Recognition Network for Autonomous Vehicles** (ID:225)
Chen Xin (Kanagawa University); Bin Zhang (Kanagawa University)
3. [Full paper] **DeepFuzzLoc Positioning: A Unified Fusion of Fuzzy Clustering and Deep Learning for Scalable Indoor Localization Using Wi-Fi RSSI** (ID:58)
Muhammad Izzuddin Mahali (National Taiwan University of Science and Technology, Universitas Negeri Yogyakarta); Jenq-Shiou Leu (National Taiwan University of Science and Technology); Nur Achmad Sulistyo Putro (Universitas Gadjah Mada); Setya Widyanan Prakosa (National Taiwan University of Science and Technology); Cries Avian (National Taiwan University of Science and Technology)
4. [Full paper] **Protein Secondary Structure Prediction using N-Grams and 1-Dimensional Convolutional Neural Network** (ID:177)
Annisa Rizqiana (Universitas Gadjah Mada); Afiahayati (Universitas Gadjah Mada)
5. [Short paper] **DDTNet: A Dense Network with Dendritic Learning for Brain Tumor Classification** (ID:143)
ZeYuan Ju (University of Toyama); Hanchen Wang (University of Toyama); Chouyu Chen (University of Toyama); Yidong Cao (University of Toyama); Qiong Fu (University of Toyama); Shangce Gao (University of Toyama)
6. [Abstract-only paper] **CNN Inspection System for Detecting Defective Products of Automotive Blower Motor** (ID:84)
Byung Ju Jeon (Kyungnam University); Gi Yul Cho (Kyungnam University); Dong Hun Kim (Kyungnam University)

S-3-H [GS-02] Natural Language Processing

Nov. 10 (Sunday) 16:15-18:15 **Room H**

Chair: Naoki Masuyama (Osaka Metropolitan University)

1. [Full paper] **A Study of Gender Bias in the Effects of Context Using BERT** (ID:240)
Mana Ueno (Ochanomizu University); Ichiro Kobayashi (Ochanomizu University)

2. [Full paper] **Toward Fuzzy Reasoning with Large Language Models** (ID:199)
Megumi Itoh (Ochanomizu University); Ichiro Kobayashi (Ochanomizu University)
3. [Full paper] **A Study on Predicting Ratings System through Sentiment Analysis and Clustering of Coupang Product Reviews** (ID:50)
Si-Yoon Sung (Dongguk University); Jin-Woo Jung (Dongguk University)
4. [Full paper] **SynthSearch : An information retrieval system visualizing diverse perspectives based on dialectics** (ID:64)
Tomohiro Yada (Future University Hakodate); Asuka Terai (Future University Hakodate); Ei-Ichi Osawa (Future University Hakodate)
5. [Full paper] **Self-Organizing Method for Word Embedding** (ID:228)
Hongyi Zhang (Nihon University); Yukari Yamauchi (Nihon University)
6. [Short paper] **User-Adaptive Chat Dialogue System Based on User's Feedback** (ID:242)
Toru Sugimoto (Shibaura Institute of Technology); Airi Teraoka (Shibaura Institute of Technology)

Day 3

Monday, November 11, 2024

Plenary Talk 2:
New Research Directions in Evolutionary Multi-Objective Optimization

Prof. **Hisao Ishibuchi** (Southern University of Science and Technology, China)

Nov. 11 (Monday) 9:00-10:10, **Room A**

Chair: Yusuke Nojima (Osaka Metropolitan University, Japan)

M-1-A [SS-01]
Theory and Applications of Intelligent Systems

Nov. 11 (Monday) 10:30-12:30 **Room A**

Chair: Takao Sato (University of Hyogo)

1. [Full paper] **On Colorectal-Cancer Grading Using Fine-Tuning Based Convolutional Neural Networks** (ID:160)
Daiki Fujimoto (University of Hyogo); Naotake Kamiura (University of Hyogo); Teijiro Isokawa (University of Hyogo); Nobuyuki Matsui (University of Hyogo); Tatsuaki Tsuruyama (Kyoto University)
2. [Full paper] **Combined Plant and Control Co-design via Solutions of Hamilton-Jacobi-Bellman Equation Based on Physics-informed Learning** (ID:219)
Kenjiro Nishimura (University of Hyogo); Hikaru Hoshino (University of Hyogo); Eiko Furutani (University of Hyogo)
3. [Full paper] **An Identification System for Sperm Whales (*Physeter macrocephalus*) Based on Deep Neural Networks** (ID:203)
Masami Komeda (University of Hyogo); Teijiro Isokawa (University of Hyogo); Kagari Aoki (Teikyo University of Science); Koki Tsujii (Ogasawara Whale Watching Association); Katsufumi Sato (The University of Tokyo); Kentaro Sakamoto (The University of Tokyo); Takashi Iwata (Kobe University); Hayao Kobayashi (Tokyo University of Agriculture); Masao Amano (Nagasaki University); Naotake Kamiura (University of Hyogo)
4. [Abstract-only paper] **Interim Study: Optimization of Aerial Base Station Placement and Beam Configuration in Urban Environments** (ID:283)
Dae-Yeol Kim (Kyungnam University); Do-Yup Kim (Incheon National University)
5. [Abstract-only paper] **Interim Study: Optimizing Color Spaces for Non-Contact SpO₂ Measurement Using Reinforcement Learning** (ID:286)
Dae-Yeol Kim (Kyungnam University); Hanyul Ryu (Kyungnam University); Youngjun Kim (Kyungnam University); Do-Yup Kim (Incheon National University)

M-1-B [SS-05]
Application to infrastructure management and disaster prevention using AI and VR technique

Nov. 11 (Monday) 10:30-12:30 **Room B**

Chair: Hisao Emoto (Tottori University), Kei Kawamura (Yamaguchi University)

1. [Full paper] **Promoting Open Data Utilization in Infrastructure Management through an Integrated System of Data Processing, Cloud Storage, and Visualization** (ID:39)

Zhenlong Zhang (Yamaguchi University); Kei Kawamura (Yamaguchi University); YiMing Su (Yamaguchi University); Hisao Emoto (Tottori University); Shuji Sawamura (Yamaguchi Prefecture Government); Nguyen Kim Cuong (MienTrung University of Civil Engineering)

2. [Full paper] **Detection of overhanging and dead branches from in-vehicle camera images using deep learning and image processing** (ID:150)
Tomoka Okachi (Ritsumeikan University); Yasutoshi Nomura (Ritsumeikan University)
3. [Full paper] **Crack Detection and 3D Scene Creation of Road Bridge Using Deep Learning and Image Processing** (ID:174)
Kotaro Ishida (Ritsumeikan University); Yasutoshi Nomura (Ritsumeikan University)
4. [Full paper] **Analysis and Identification of Gait Balance States using Plantar Pressure Distribution** (ID:55)
JunYu Chen (Kansai University); Michiyuki Hirokane (Kansai University)
5. [Short paper] **Mixed-Reality Simulator for Analysis of Interactions between Humans and Crawler Cranes** (ID:19)
Kenta Yamanobe (Nagaoka University of Technology); Kazuya Yokota (Nagaoka University of Technology); Daigo Uenoyama (Nagaoka University of Technology); Daisuke Fujiura (Nagaoka University of Technology); Masataka Ogura (Nagaoka University of Technology); Kengo Takahashi (Nagaoka University of Technology); Masajiro Abe (Nagaoka University of Technology)

M-1-C [SS-08]

User-friendly and User-adaptable Interactive Systems with Emotions and Kansei

Nov. 11 (Monday) 10:30-12:30 **Room C**

Chair: Tomoko Yonezawa (Kansai University), Hirotake Yamazoe (University of Hyogo)

1. [Short paper] **Head Pose Estimation Using a Chest-Mounted Camera and its Evaluation Based on CG Images** (ID:207)
Taisei Yamada (University of Hyogo); Hirotake Yamazoe (University of Hyogo)
2. [Short paper] **Analysis of Relationships Between Gaze and Body Movements Toward Searching State Detection** (ID:206)
Katsunobu Kinoshita (University of Hyogo); Hirotake Yamazoe (University of Hyogo)
3. [Short paper] **Analysis of the Effects on Driving Behaviors due to Changes in Engine Sound Feedback** (ID:204)
Sota Inoue (University of Hyogo); Akira Utsumi (ATR); Hirotake Yamazoe (University of Hyogo)
4. [Short paper] **Preliminary analysis of an arm-worn device for indicating directions through tactile sensation** (ID:205)
Neo Nishimura (University of Hyogo); Tomoko Yonezawa (Kansai University); Hirotake Yamazoe (University of Hyogo)
5. [Full paper] **A Study of Nursing Behavior Using Agent Expressing a Sense of Mission and Empathy** (ID:164)
Tomoya Osawa (Kansai University); Tomoko Yonezawa (Kansai University)
6. [Full paper] **Snuggling Robot at Different Positions Based on User's Facial Expressions** (ID:116)
Tomoko Yonezawa (Kansai University); Hikaru Matsuyama (Kansai University); Xin Wan (Kansai University); Hikaru Matsumura (Kansai University)

M-1-D [GS-03]
Cognitive Science

Nov. 11 (Monday) 10:30-12:30 **Room D**

Chair: Masaharu Komori (Kyoto Univeristy)

1. [Full paper] **Recognition Accuracy of the Vehicle Posture and the Operator's Face Posture When Operating a Small Vehicle** (ID:149)
Masaharu Komori (Kyoto Univeristy); Shoun Nishioka (Kyoto University); Yuya Suematsu (Kyoto University)
2. [Full paper] **Artificial Intelligence for the "INSIDER"** (ID:87)
Ryunosuke Narikiyo (Rikkyo University); Youichiro Miyake (Rikkyo University)
3. [Short paper] **Generation Z: How Acceptable Health Application for Us?** (ID:13)
Johan Mulia (Universitas Multimedia Nusantara); Wella (Universitas Multimedia Nusantara)
4. [Short paper] **Method to Develop Models of Natural Reasoning in Fuzzy Rule Evaluation Task** (ID:213)
Alaniah Nisrina (Ritsumeikan University); Eric W. Cooper (Ritsumeikan University); Yu Yan (Ritsumeikan University)
5. [Abstract-only paper] **Quantification Method of Drivers' Object Detection Ability via Visual Attractiveness Quantification Method and Eye Tracker** (ID:34)
Reiya Uchiyama (Meiji University); Takuto Nishioka (Meiji University); Takumi Inagawa (Meiji University); Yohei Nakada (Meiji University)
6. [Abstract-only paper] **Chaotic Behaviors in Opinion Dynamics Models Influenced by External Forces** (ID:278)
Chaewon Lee (University of North Carolina at Chapel Hill); Youngchul Bae (Chonnam National University); Jin Hee Yoon (Sejong University)

M-1-E [GS-16]
Kansei Engineering

Nov. 11 (Monday) 10:30-12:30 **Room E**

Chair: Saerom Lee (Kagawa University)

1. [Full paper] **Exercise support system with self-growing avatars using interactive evolutionary computation** (ID:186)
Sora Yamamoto (Kansai University); Emmanuel Ayedoun (Kansai University); Masataka Tokumaru (Kansai University)
2. [Full paper] **A Study of Emotion-based Music Generation using Diffusion Model** (ID:259)
Moyu Kawabe (Ochanomizu University); Ichiro Kobayashi (Ochanomizu University)
3. [Full paper] **Investigation of Finger Motion and Brain Activity in a Novel Human Grasping Algorithm** (ID:121)
Kazuki Hokari (Nippon Bunri University); Keita Kotoo (Nippon Bunri University); Jonas Pramudita (Nihon University)
4. [Short paper] **Analysis of the Relationship between Colors and Impression on Studio Ghibli Movie Posters** (ID:148)
Hirari Nishikori (Kagawa University); Saerom Lee (Kagawa University); Toshihiro Hayashi (Kagawa University)

5. [Short paper] **Modeling of Weight Perception Based on Subjectivity by Considering Individual Differences** (ID:41)
Daisuke Kushida (Tottori University); Kei Nakajima (Tottori University)

M-1-F [SS-04]

Evolutionary Computation, Swarm Intelligence, and Their Applications

Nov. 11 (Monday) 10:30-12:30 **Room F**

Chair: Tomohiro Yoshikawa (Suzuka University of Medical Science), Kei Ohnishi (Kyushu Institute of Technology)

1. [Full paper] **Multiobjective Branch-and-Cut Method with Shared Cutting Plane Information: A Case Study on Optimizing Garbage Collection** (ID:221)
Tomoki Kaho (Muroran Institute of Technology); Kazutoshi Sakakibara (Toyama Prefectural University); Mikiharu Arimura (Muroran Institute of Technology); Shinya Watanabe (Muroran Institute of Technology)
2. [Full paper] **Probabilistic Model Building Evolutionary Algorithm Using the Same Type and Size of Model for Any Binary Optimization Problems** (ID:15)
Atushi Kishimoto (Kyushu Institute of Technology); Kei Ohnishi (Kyushu Institute of Technology)
3. [Full paper] **Constrained Multi-modal Multi-objective Evolutionary Algorithm with Problem Transformation into Two-objective Subproblems** (ID:290)
Teruhiko Tokusaka (Osaka Metropolitan University); Naoki Masuyama (Osaka Metropolitan University); Yusuke Nojima (Osaka Metropolitan University)
4. [Full paper] **A Decomposition-based Constrained Multi-objective Evolutionary Algorithm with Adaptive Weight Adjustment** (ID:311)
Yuki Azuma (Osaka Prefecture University); Naoki Masuyama (Osaka Metropolitan University); Yusuke Nojima (Osaka Metropolitan University)
5. [Full paper] **Real-time Support for Solution Search in Human-based Evolutionary Computation** (ID:100)
Takato Utsumi (Kyushu Institute of Technology); Hiroki Muta (Kyushu Institute of Technology); Chen-Kun Tsung (National Chin-Yi University of Technology); Kei Ohnishi (Kyushu Institute of Technology)
6. [Full paper] **Prospect Theory-Based Formulation of Portfolio Optimization Problem using Loan and Its Solution by Evolutionary Algorithm** (ID:156)
Kiyoharu Tagawa (Kindai University); Yukiko Orito (Tamagawa University)

M-1-G [SS-07]

Recent Trends of Clustering Methodologies

Nov. 11 (Monday) 10:30-12:30 **Room G**

Chair: Seiki Ubukata (Osaka Metropolitan University), Yuchi Kanzawa (Shibaura Institute of Technology)

1. [Full paper] **On Some Variants for Anticlustering** (ID:131)
Yuchi Kanzawa (Shibaura Institute of Technology); Vicenç Torra (University of Umeå)
2. [Full paper] **On Two Variants of Fuzzy Clustering for Relational Data** (ID:125)
Shujin Saga (Shibaura Institute of Technology); Yuchi Kanzawa (Shibaura Institute of Technology)

3. [Full paper] **Some Variants of Fuzzy c-Directions Clustering Algorithms for Spherical Data** (ID:126)
Haruki Kinoshita (Shibaura Institute of technology); Yuchi Kanzawa (Shibaura Institute of Technology)
4. [Full paper] **On Variants of Fuzzy Clustering Algorithms with Dimension Reduction** (ID:77)
Haruki Kobayashi (Shibaura Institute of Technology); Yuchi Kanzawa (Shibaura Institute of Technology)
5. [Short paper] **Development of a Robust Fuzzy c-Means Method Through Convex Analysis** (ID:2)
Yoshifumi Kusunoki (Osaka Metropolitan University); Tomoharu Nakashima (Osaka Metropolitan University)
6. [Late Breaking paper] **On Even-sized Entropy Based Fuzzy Non-Metric Model** (ID:509)
Jinsan Jeon (University of Tsukuba); Yasunori Endo (University of Tsukuba);

M-1-H [GS-04]

Intelligent Systems/Applications

Nov. 11 (Monday) 10:30-12:30 **Room H**

Chair: Taku Harada (Tokyo University of Science)

1. [Full paper] **Optimizing Job Shop Scheduling with Deep Q-Network for Robust Performance** (ID:169)
Kuo Yu-Cheng (Tokyo University of Science); Taku Harada (Tokyo University of Science)
2. [Full paper] **Development of a Modular Structured Drone System to Enhance Robotic Functionality** (ID:74)
Nur Qurratu Aina Binti Mahadi (Tokyo University of Technology); Ryota Yoshimura (Tokyo University of Technology); Jinseok Woo (Tokyo University of Technology); Yasuhiro Ohyama (Tokyo University of Technology)
3. [Full paper] **Implementing Network Transformation Based Algorithms for a Special Case of Scheduling Jobs with Periodic Due Dates on Parallel Machines** (ID:212)
Kazusa Toyoda (Kyoto Institute of Technology); Yoshiyuki Karuno (Kyoto Institute of Technology)
4. [Short paper] **Pseudo-Holographic Display of Plant Models based on Pepper's Ghost Illusion** (ID:201)
Nobuyuki Umezu (Ibaraki University); Satoshi Iijima (Ibaraki University)
5. [Abstract-only paper] **A Proposal on Appropriate Semi-Finished Inventory Holding Strategies in a Material Production Factory under Conditions of Order Fluctuations** (ID:48)
Akihisa Horio (Kobe Steel Ltd.); Yuki Yamamoto (Kobe Steel Ltd.); Toyohiro Umeda (Kobe Steel Ltd.)
6. [Late Breaking paper] **Developing an Analysis Tool for Phoneme Frequency of Korean** (ID:505)
MoonSoo Chang (Seokyeong University); Jiyoung Shin (Korea University)

Invited Talk 5:
Introduction to Rough Clustering: Fundamentals and Applications

by Dr. **Seiki Ubukata**
(Osaka Metropolitan University, Japan)

Nov. 11 (Monday) 12:40-13:40, **Room A**

Plenary Talk 3:
Reproducibility Crisis of Artificial Intelligence in Practical Applications

Prof. **Chao-Cheng Wu** (National Taipei University of Technology, Taiwan)

Nov. 11 (Monday) 13:40-14:50, **Room A**
Chair: Hiroshi Nakajima (Tokyo Metropolitan University)

M-2-A [GS-07]
Machine Learning/Data Mining

Nov. 11 (Monday) 15:00-16:00 **Room A**
Chair: Ichiro Kobayashi (Ochanomizu University)

1. [Full paper] **Rethinking the Blood Pressure Estimation Modeling Adapted to Cuff Pressure Pulse Waveform Characteristics** (ID:4)
Shihori Uchida (OMRON Corporation); Yuki Hirohashi (OMRON Corporation); Yukiko Yanagawa (OMRON Corporation); Hiroshi Nakajima (OMRON Corporation)
2. [Short paper] **Exploring Individual and Sex Differences from Brain EEG Signals under Music Stimuli** (ID:124)
Ying Luo (Ochanomizu University); Satoshi Nishida (Center for Information and Neural Networks (CiNet), National Institute of Information and Communications Technology); Ichiro Kobayashi (Ochanomizu University)
3. [Abstract-only paper] **Enhanced Detection of Diabetic Peripheral Neuropathy Using Hyperspectral Imaging and Kernel Least Square Orthogonal Subspace Projection (KLSOSP)** (ID:161)
Yi-Jing Sheen (Taichung Veterans General Hospital); Hsin-Che Wang (Taichung Veterans General Hospital); Chiu-Chin Sung (Taichung Veterans General Hospital); Yu-Wen Fu (Taichung Veterans General Hospital); Kuan-Jung Pan (Taichung Veterans General Hospital); Wan-Ting Huang (Taichung Veterans General Hospital); Min-Yi Chou (Taichung Veterans General Hospital); Hsian-Min Chen (Taichung Veterans General Hospital)

M-2-B [SS-05]

Application to infrastructure management and disaster prevention using AI and VR technique

Nov. 11 (Monday) 15:00-16:00 **Room B**

Chair: Hisao Emoto (Tottori University), Kei Kawamura (Yamaguchi University)

1. [Full paper] **Application Of Deep Learning To Basic Surveys For Setting Steep Slope Warning Areas** (ID:61)
Tianyang Wang (Kansai University); Michiyuki Hirokane (Kansai University); Rena Tani (Cloud Ace Inc.); Kazumasa Kuramoto (Chuden Technology Consultant Co., Ltd.)
2. [Full paper] **Inspection of concrete hollow slabs based on object detection in electromagnetic radar received images** (ID:187)
Renjie Xie (Ritsumeikan University); Yasutoshi Nomura (Ritsumeikan University)
3. [Short paper] **Tsunami Visualization Tool Using Numerical Simulation Utilizing 3D City Model** (ID:211)
Ryutarō Oshida (Tottori University); Kano Sasaki (Tottori University); Takao Ota (Tottori University); Hisao Emoto (Tottori University); Nobuki Fukui (Tottori University)

M-2-C [SS-08]

User-friendly and User-adaptable Interactive Systems with Emotions and Kansei

Nov. 11 (Monday) 15:00-16:00 **Room C**

Chair: Tomoko Yonezawa (Kansai University), Hirotake Yamazoe (University of Hyogo)

1. [Full paper] **Preliminary Study on Emotion Analysis of News Comments Based on PAD Model** (ID:115)
Tomoko Yonezawa (Kansai University); Yuichi Okada (Kansai University); Xiaoxi Hu (Kansai University); Tomoki Yanagi (Kansai University); Yuki Matsumura (Kansai University); Xin Wan (Kansai University)
2. [Full paper] **Video Popularity in Social Media: Impact of Emotions, Raw Features and Viewer Comments** (ID:263)
Malika Ziyada (Kazakh-British Technical University); Pakizar Shamoï (Kazakh-British Technical University)
3. [Full paper] **Extraction of handwriting features in tablet shape drawing for developmental screening** (ID:175)
Ryota Mima (Kansai University); Yuichi Okada (Kansai University); Shusuke Yoshitsugu (Kansai University); Satomi Shimizu (Tokiwakai Gakuen University); Tomoko Yonezawa (Kansai University)

M-2-D [GS-13]

Bioinformatics

Nov. 11 (Monday) 15:00-16:00 **Room D**

Chair: Toshiya Arakawa (Nippon Institute of Technology)

1. [Full paper] **In Vitro Experiments and Computational Modeling of Cancer Invasion** (ID:188)
Shinji Kotani (Osaka City University); Tadashi Nakano (Osaka Metropolitan University); Chikako Yokoyama (Osaka Metropolitan University)

2. [Full paper] **Modelling Mechanical Communication and Collective Motion of Cancer Cells** (ID:246)
Ryousuke Hosono (Osaka City University); Tadashi Nakano (Osaka Metropolitan University); Yu-Hsiang Hsu (National Taiwan University); William C. Tang (University of California, Irvine)
3. [Late Breaking paper] **Study on the Extraction Method of Activity Levels for Disease Detection in Dairy Cows Using Optical Flow Image Analysis** (ID:515)
Tatsuki Ide (Industrial Research Institute of Shizuoka Prefecture Fuji Technical Support Center); Hideyuki Uruma (Shizuoka Prefectural Research Institute of Animal Industry); Toshiya Arakawa (Nippon Institute of Technology)

M-2-E [SS-21]

Foundation Models and their Applications

Nov. 11 (Monday) 15:00-16:00 **Room E**

Chair: Keon Myung Lee (Chungbuk National University)

1. [Short paper] **Building a Role-Play Interactive System using LLM for Health Guidance Education** (ID:216)
Shinjitsu Agatsuma (Aichi Prefectural University); Reon Ohashi (Aichi Prefectural University); Kazuya Tsubokura (Aichi Prefectural University); Yua Nishio (Aichi Prefectural University); Mai Ishikawa (Aichi Prefectural University); Niina Ito (Aichi Prefectural University); Fukuka Ito (Aichi Prefectural University); Shiori Minami (Aichi Prefectural University); Nao Takegawa (Aichi Prefectural University); Riko Nakamura (Aichi Prefectural University); Kana Yokoyama (Aichi Prefectural University)
2. [Abstract-only paper] **Effect of Preprocessing Techniques in Deep Learning-Based Time Series Anomaly Detection** (ID:275)
Chan Sik Han (Chungbuk National University); Keon Myung Lee (Chungbuk National University)
3. [Abstract-only paper] **Effect of Using a Foundation Model for Memory Initialization in a Memory-Augmented Neural Network** (ID:301)
Chan Sik Han (Chungbuk National University); Keon Myung Lee (Chungbuk National University)

M-2-F [SS-16]

Rough Sets, Granular Computing and Their Applications

Nov. 11 (Monday) 15:00-16:00 **Room F**

Chair: Yasuo Kudo (Muroran Institute of Technology)

1. [Short paper] **Generalization of Rough-set-based Attribute Reduction by Using Purity Functions** (ID:267)
Yoshifumi Kusunoki (Osaka Metropolitan University)
2. [Abstract-only paper] **Normality Condition and Estimation of a Twofold Interval Weight Vector from an Interval Pairwise Comparison Matrix** (ID:138)
Kentaro Ishikawa (Osaka University); Masahiro Inuiguchi (Osaka University)
3. [Abstract-only paper] **Ranking Performances of Interval Priority Weight Estimation Methods Based on Minimal Possible Ranges Incorporating Center Estimations in the Preliminary Models** (ID:194)
Yeyang Hong (Osaka University); Masahiro Inuiguchi (Osaka University); Shigeaki Innan (Osaka University)

4. [Abstract-only paper] **Comparison of Estimation Method of Interval Priority Weight Vector by the Set of Alternative Orders** (ID:183)
Koichiro Hirose (Osaka University); Masahiro Inuiguchi (Osaka University); Yeyang Hong (Osaka University)

M-2-G [GS-10] Deep Learning

Nov. 11 (Monday) 15:00-16:00 **Room G**

Chair: Naoki Masuyama (Osaka Metropolitan University)

1. [Full paper] **Enhancing Feature Prediction in Image Generation Models via Task Arithmetic** (ID:123)
Muneyuki Unehara (Hokkaido Musashi Women's University); Kento Ogata (Nagaoka University of Technology); Takashi Yukawa (Nagaoka University of Technology)
2. [Full paper] **Evolutionary Music Synthesis: A Generative AI System with Interactive User Feedback** (ID:180)
Keishi Ohya (Kansai University); Emmanuel Ayedoun (Kansai University); Masataka Tokumaru (Kansai University)
3. [Abstract-only paper] **A Study on Wafer Map Defect Pattern Classification Using Divisive Hierarchical Embedded Clustering** (ID:268)
Kenji Kanda (Mie University); Ryo Takahashi (KIOXIA Corporation); Takahiro Shimamoto (KIOXIA Corporation); Yasushi Arimura (KIOXIA Corporation); Yuichi Tokuyama (KIOXIA Corporation); Tomoya Kawai (KIOXIA Corporation); Hiroyuki Morinaga (KIOXIA Corporation); Hiroharu Kawanaka (Mie University); Tetsushi Wakabayashi (Mie University)

M-2-H [GS-01] Artificial Intelligence

Nov. 11 (Monday) 15:00-16:00 **Room H**

Chair: Yusuke Nojima (Osaka Metropolitan University)

1. [Full paper] **Threshold-free Event Detection for Non-Intrusive Load Monitoring using Recurrence Plot and Convolutional Neural Networks** (ID:21)
Men-Shen Tsai (National Taipei University of Technology); Yen-Kuang Lin (National Taipei University of Technology)
2. [Abstract-only paper] **Comparative Validation of Meat Alternative and Edible Insect Intake Intention and Rejection Model** (ID:72)
Rin Okumura (Chuo University); Shugo Tanaka (Chuo University); Hiroko Shoji (Chuo University); Ippeita Dan (Chuo University); Yasushi Kyutoku (Chuo University)
3. [Abstract-only paper] **Verification of Users' Evaluations of Cashless Service Technology Based on Whether or Not They Have Experienced Problems** (ID:71)
Shugo Tanaka (Chuo University); Rin Okumura (Chuo University); Hiroko Shoji (Chuo University); Ippeita Dan (Chuo University); Yasushi Kyutoku (Chuo University)

M-3-A [SS-01]

Theory and Applications of Intelligent Systems

Nov. 11 (Monday) 16:15-18:15 **Room A**

Chair: Eiko Furutani (University of Hyogo)

1. [Full paper] **BMA for the BMA: Boosting Mobility Analysis for the Bangkok Metropolitan Administration via Automated Pedestrian Counting from CCTV** (ID:86)
Poonnaphop Kujareanpaisal (Chulalongkorn University); Rujira Mayhasap (Chulalongkorn University); Pin Pin Tea-makorn (Sasin School of Management); Pavitra Jindahra (Sasin School of Management); Stefano Starita (Sasin School of Management); Nagul Cooharajanane (Chulalongkorn University); Kanokwan Atchariyachanvanich (King Mongkut's Institute of Technology Ladkrabang)
2. [Full paper] **Preliminary Analysis of Impression Changes by Adding a Pause to Piece Movement Motions of an Arm Robot** (ID:223)
Haruumi Koga (University of Hyogo); Tomoko Yonezawa (Kansai University); Hirotake Yamazoe (University of Hyogo)
3. [Full paper] **A Bias in Training Data Degrades the Quality of Variable Importance Scores of Random Forests** (ID:88)
Shuhei Kimura (Tottori University); Kenta Yuasa (Tottori University); Masato Tokuhisa (Tottori University)
4. [Short paper] **Model Predictive Control Based on Estimated Dynamics with Extended State Observer and its Application of Quadrotor** (ID:157)
Hiroto Nakai (University of Hyogo); Natsuki Kawaguchi (University of Hyogo); Nozomu Araki (University of Hyogo)
5. [Abstract-only paper] **OFSP-based Adaptive Control for Nonlinear Multi-agent Systems** (ID:119)
Ryuto Kobayashi (University of Hyogo); Takao Sato (University of Hyogo); Yusuke Tsunoda (University of Hyogo)

M-3-B [SS-19]

Maritime Intelligent Systems

Nov. 11 (Monday) 16:15-18:15 **Room B**

Chair: Kwang-Il Kim (Jeju National University), Taeho Hong (Mokpo National Maritime University)

1. [Short paper] **Analysis of Spatio-Temporal Fishing Status of Large purse seine fishery Using AIS Data** (ID:282)
Kwang-Il Kim (Jeju National University); Eun-A Song (Jeju National University); Hye-Min Kim (Jeju National University); Jung-Sik Jeong (Mokpo National Maritime University)
2. [Abstract-only paper] **Ship Avoidance Algorithm in Rough Weather using Fuzzy Inference** (ID:294)
Geuntaek Ro (Mokpo National Maritime University); Taeho Hong (Mokpo National Maritime University)
3. [Abstract-only paper] **An efficient route planning using prediction of ship movement** (ID:310)
Jinwan Park (Korea Coast Guard Region-West); Kwang-Il Kim (Jeju National University); Kyeong Seok Ok (KJ Engineering, Co. Ltd.); Hyun Jun Choi (Mokpo National Maritime University); Jung Sik Jeong (Mokpo National Maritime University)

4. [Late Breaking paper] **Development of Accident Response Support System Technology** (ID:511)
Hyejin Kim (Global Control Co.,Ltd); Jeongin Choi (Global Control Co.,Ltd)
5. [Late Breaking paper] **A technique for predicting collisions on a route planning of Maritime Autonomous Surface Ships using spatial index** (ID:512)
Younggeun Lee (Global Control Co.,Ltd); Daeseop Lim (Global Control Co.,Ltd)

M-3-C [SS-15]

Science and Technology in Awareness Computing at the Levels of Humans, Communities, and the World

Nov. 11 (Monday) 16:15-18:15 **Room C**

Chair: Tadahiko Murata (OsakaUniversity)

1. [Full paper] **Sustainable Artificial Intelligence Must Be Aware of Its Body and the Environment** (ID:280)
Robert Kozma (University of Memphis)
2. [Full paper] **A Systemic and Semiotic Approach to Thoughts and Meaning Creation Manifested in Intentional Actions** (ID:304)
Joshua Davis (The University of Auckland); Florian Schubeler (The Embassy of Peace Whitianga); Robert Kozma (University of Memphis)
3. [Full paper] **Assigning Transportation Modes to Workers Using Statistics in Japanese Synthetic Populations** (ID:279)
Shunta Horigami (Osaka University); Tadahiko Murata (OsakaUniversity); Shintaro Kitashita (Kansai University)
4. [Full paper] **Enhancing Machine Learning Interpretability Through a Graphical User Interface** (ID:305)
Alexandre Ken Tabouret (Osaka Metropolitan University); Eric M. Vernon (Osaka Metropolitan University); Naoki Masuyama (Osaka Metropolitan University); Yusuke Nojima (Osaka Metropolitan University)
5. [Full paper] **Combining TL and KD for Object Detection Model Compression** (ID:243)
Yuhan Peng (The University of Aizu); Yan Lyu (Muroran Institute of Technology); Qiangfu Zhao (The University of Aizu)

M-3-D [GS-11]

Fuzzy Systems and Fuzzy Control

Nov. 11 (Monday) 16:15-18:15 **Room D**

Chair: In-Ho Ra (Kunsan National University)

1. [Full paper] **Selection of gubbins for wind turbine blades using fuzzy WASPAS method** (ID:312)
Kishor C (Vellore Institute of Technology); Jagadeeswari Murugan (Vellore Institute of Technology); Thiruvekadam S (Vellore Institute of Technology); Raju J (Vellore Institute of Technology); In-Ho Ra (Kunsan National University)
2. [Full paper] **EC-Net: Efficient Compound Network with Dendritic Learning for Cataract Eye Detection** (ID:192)
Haiqing Wang (University of Toyama); ZeYuan Ju (University of Toyama); Chouyu Chen (University of Toyama); Zhipeng Liu (University of Toyama); Qiong Fu (University of Toyama); Shangce Gao (University of Toyama)

3. [Full paper] **Observer design for Takagi-Sugeno fuzzy descriptor system using a Lyapunov function with integrals of the membership functions** (ID:146)
Yuto Asai (Aoyama Gakuin University); Yutoku Takahashi (Aoyama Gakuin University); Jun Yoneyama (Aoyama Gakuin University)
4. [Full paper] **Pumping Lemmata for Fuzzy Languages Accepted by Jumping and Right One-Way Jumping Fuzzy Finite Automata** (ID:49)
Pavel Martinek (Tomas Bata University in Zlin)
5. [Short paper] **Evaluation of Soldering Skill Using Fuzzy Inference** (ID:235)
Kento Jinkawa (National Institute of Technology, Maizuru Collage); Kentaro Mori (National Institute of Technology, Maizuru College)
6. [Abstract-only paper] **Fuzzy Descriptor-Form-Based Optimum Control Design for Lateral Control of a Powered Paraglider** (ID:176)
Yu-Hsuan Shen (National Central University); Ying-Jen Chen (Yuan Ze University); Wen-June Wang (National Central University)

M-3-E [SS-12]

Understanding Human Behavior and Knowledge Acquisition

Nov. 11 (Monday) 16:15-18:15 **Room E**

Chair: Takenori Obo (Tokyo Metropolitan University)

1. [Late Breaking paper] **Feasibility Study of a Chatbot Interruption Viewpoint from Stress and Daily Activity towards Long-Term Activity Knowledge Acquisition** (ID:510)
Risa Kojima (Tokyo Metropolitan University); Eri Sato-Shimokawara (Tokyo Metropolitan University)
2. [Full paper] **Greeting Gesture Analysis Using Boosting Algorithms and SHAP** (ID:229)
Angga Wahyu Wibowo (Tokyo Metropolitan University); Eri Sato-Shimokawara (Tokyo Metropolitan University); Kurnianingsih (Politeknik Negeri Semarang)
3. [Abstract-only paper] **Study on Effects of Anonymity in Text Chat during Video Conferencing** (ID:248)
Akiho Minegishi (Nihon University); Kenro Go (Nihon University); Masato Furuno (SoftBank Corp.); Yuji Kimura (Nihon University); Yusuke Ichikawa (Saitama University); Akihiro Miyata (Nihon University)
4. [Full paper] **Color and Sentiment: A Study of Emotion-Based Color Palettes in Marketing** (ID:264)
Maksat Shagyrov (Kazakh-British Technical University); Pakizar Shamoï (Kazakh-British Technical University)
5. [Full paper] **Energy-Based Continuous Time Series Probability Model with Latent Stochastic Process** (ID:295)
Hiroki Shibata (Tokyo Metropolitan University); Takenori Obo (Tokyo Metropolitan University); Yohei Anzai (Exevita inc.); Eri Sato-Shimokawara (Tokyo Metropolitan University); Yihsin Ho (Takushoku University); Yasufumi Takama (Tokyo Metropolitan University); Ichiro Kobayashi (Takushoku University)
6. [Full paper] **Extracting Motion Patterns of Greeting Gestures Using GNG with Spiking Neuron Model** (ID:300)
Takenori Obo (Tokyo Metropolitan University); Angga Wahyu Wibowo (Tokyo Metropolitan University); Eri Sato-Shimokawara (Tokyo Metropolitan University); Hiroki Shibata (Tokyo Metropolitan University)

Metropolitan University); Yihsin Ho (Takushoku University); Ichiro Kobayashi (Takushoku University)

M-3-F [SS-04]

Evolutionary Computation, Swarm Intelligence, and Their Applications

Nov. 11 (Monday) 16:15-18:15 **Room F**

Chair: Tomohiro Yoshikawa (Suzuka University of Medical Science), Kei Ohnishi (Kyushu Institute of Technology)

1. [Full paper] **Genetic Algorithm with Efficient Selection Using Pareto Front Modeling and Data Envelopment Analysis** (ID:27)
Mamoru Doi (Mitsubishi Electric Corporation); Kenya Sugihara (Mitsubishi Electric Corporation); Masao Arakawa (Waseda University)
2. [Full paper] **The impact of tournament size on the performance of evolutionary multi-objective and many-objective algorithms** (ID:59)
Yuta Nakanishi (Mitsubishi Electric Corporation); Mamoru Doi (Mitsubishi Electric Corporation); Hiroyuki Sato (The University of Electro-Communications)
3. [Full paper] **Distance-based Subset Selection with a Knee Point for Multi-objective Optimization** (ID:127)
Lie Meng Pang (Southern University of Science and Technology); Hisao Ishibuchi (Southern University of Science and Technology)
4. [Full paper] **Multimodal Optimization by Speciation-Based Differential Evolution using Graphs with Stochastic Global and Local Searches and Crossover** (ID:132)
Tetsuyuki Takahama (Hiroshima City University); Setsuko Sakai (Hiroshima Shudo University)
5. [Abstract-only paper] **Developing Heart Attack Prediction Method Based XGBoost Method with Binary Bat Algorithm Feature Selection** (ID:113)
Syaiiful Anam (Brawijaya University); Safrizal Ardana Ardiyansa (Brawijaya University); Zuraidah Fitriah (Brawijaya University); Mohamad Muslikh (Brawijaya University)

M-3-G [SS-07]

Recent Trends of Clustering Methodologies

Nov. 11 (Monday) 16:15-18:15 **Room G**

Chair: Seiki Ubukata (Osaka Metropolitan University), Yuchi Kanzawa (Shibaura Institute of Technology)

1. [Full paper] **On a New Rough Clustering Based on Optimization** (ID:104)
Sakuya Furuta (University of Tsukuba); Yasunori Endo (University of Tsukuba)
2. [Full paper] **A Note on Even-Sized Spectral Clustering** (ID:147)
Hiroki Miyakawa (University of Tsukuba); Yasunori Endo (University of Tsukuba)
3. [Full paper] **Whole Time-Series Clustering by Embedding Relational Graphs into Vector Spaces Using DeepWalk** (ID:214)
Koh Kumamoto (University of Tsukuba); Yasunori Endo (University of Tsukuba)
4. [Full paper] **Extension of Fuzzy c-Lines Considering Compactness and Separation of Clusters** (ID:22)
Katsuhiko Honda (Osaka Metropolitan University); Daichi Machida (Osaka Metropolitan University); Seiki Ubukata (Osaka Metropolitan University); Akira Notsu (Osaka Metropolitan University)

5. [Full paper] **Utilization of Genre Information in Collaborative Filtering by Three-mode Fuzzy Co-Clustering** (ID:23)
Katsuhiro Honda (Osaka Metropolitan University); Haruto Miwa (Osaka Metropolitan University); Seiki Ubukata (Osaka Metropolitan University); Akira Notsu (Osaka Metropolitan University)
6. [Abstract-only paper] **Basic Consideration of Spherical Rough C-Means Clustering and Its Application to Collaborative Filtering** (ID:170)
Daiki Io (Osaka Metropolitan University); Seiki Ubukata (Osaka Metropolitan University); Katsuhiro Honda (Osaka Metropolitan University)

M-3-H [GS-05]

Intelligent Transportation Systems

Nov. 11 (Monday) 16:15-18:15 **Room H**

Chair: Tomoe Entani (University of Hyogo)

1. [Full paper] **Prioritizing and Ranking Ships in Multi-encounter Scenarios for Autonomous Navigation** (ID:6)
Melih Akdağ (Norwegian University of Science and Technology); Tor A. Johansen (Norwegian University of Science and Technology)
2. [Full paper] **Predicting Models of Per Day Inbound/Outbound Baggage at Terminal 2 of Taoyuan International Airport during 2019-2023** (ID:255)
Sui-Ling Li (National Penghu University of Science and Technology)
3. [Full paper] **Integer Programming Approaches to an Issue of Scheduling for a Truck-drone Last-mile Delivery System with Parcel Pickup Service** (ID:122)
Kotaro Yamada (Kyoto Institute of Technology); Yoshiyuki Karuno (Kyoto Institute of Technology); Hitoshi Iima (Kyoto Institute of Technology)
4. [Short paper] **Comparative Analysis of Public Bicycle Usage Patterns between Seoul's 'Ttareungi' and New York's 'Citi Bike'** (ID:142)
Wooyong Sim (Kansai University); B. Shin (Hanyang University); H. Shin (Hanyang University); G. Lee (Hanyang University); Hiroaki Inokuchi (Kansai University)
5. [Short paper] **Psychological Analysis of Right-Turn Driving Behavior for Development of Autonomous Vehicles** (ID:38)
Shoji Takatera (Nagoya Institute of Technology); Kenji Funahashi (Nagoya Institute of Technology); Koji Tanida (Kindai University); Shinji Mizuno (Aichi Institute of Technology)
6. [Abstract-only paper] **Deep Reinforcement Learning-based eVTOL Path Planning with Dynamic Obstacle Avoidance in The Complex Air Traffic Environment** (ID:137)
Daojun Li (Civil Aviation University of China); Changxiao Zhao (Civil Aviation University of China); Kenian Wang (Civil Aviation University of China)

Banquet & Award Ceremony

Nov. 11 (Monday) 19:00-21:00, **Hotel Monterey Himeji**

Day 4

Tuesday, November 12, 2024

Plenary Talk 4:
Code Intelligence and Language Models

Prof. **Jee-Hyong Lee** (Sungkyunkwan University, Korea)

Nov. 12 (Tuesday) 9:00-10:10, **Room A**

Chair: Keon Myung Lee (Chungbuk National University)

T-1-B [SS-13]

Advancing Soft Computing Solutions for Real-World Problems

Nov. 12 (Tuesday) 10:30-12:30 **Room B**

Chair: Yukinobu Hoshino (Kochi University of Technology)

1. [Full paper] **Empirical research on 3D analysis and flow prediction of upstream rivers using drones** (ID:256)
Yukinobu Hoshino (Kochi University of Technology); Namal Rathnayake (The University of Tokyo); Tuan Linh Dang (Hanoi University of Science and Technology); Upaka Rathnayake (Atlantic University of Technology)
2. [Full paper] **Implementation of Pneumoconiosis Detection xAI in Chest X-ray Images** (ID:244)
Yoshua K Nomura (Kochi University); Yuki Hyohdoh (Kochi University); Keita Mitani (Kochi University); Yutaka Hatakeyama (Kochi University)
3. [Full paper] **Tomato Fruit Evolution and Maturity estimation from RGB Time-lapse Observation via Modern Structure from Motion and Instance Segmentation** (ID:51)
Stefan Baar (Muroran Institute of Technology); Yosuke Kobayashi (Muroran Institute of Technology); Shinya Watanabe (Muroran Institute of Technology)
4. [Short paper] **Accuracy Validation of Cardiac Disease Dataset with Cascaded ANFIS** (ID:226)
Moegi Utami (Kochi University of Technology); Yukinobu Hoshino (Kochi University of Technology); Namal B. Rathnayake (University of Tokyo)
5. [Late Breaking paper] **An Experimental Study on Stress-induction Typing Tests with Different Keyboard Configurations** (ID:514)
Nan Bu (National Institute of Technology, Kumamoto College);

T-1-C [SS-23]

Advances in Deep Neural Network Training

Nov. 12 (Tuesday) 10:30-12:30 **Room C**

Chair: Jee-Hyong Lee (Sungkyunkwan University)

1. [Full paper] **Video Generation with Single Flame Image and Wind Direction Information** (ID:237)
Izuho Takahashi (University of Tsukuba); Zeyuan Chen (University of Tsukuba); Masahiko Mikawa (University of Tsukuba); Makoto Fujisawa (University of Tsukuba)

2. [Full paper] **CAFTTA: Mitigating Unseen Class Forgetting in Test-Time Adaptation with Knowledge Fusion** (ID:165)
Byung-Joon Lee (Sungkyunkwan University); Jin-Seop Lee (Sungkyunkwan University); Jee-Hyong Lee (Sungkyunkwan University)
3. [Full paper] **Representative Item Summarization Prompting for LLM-based Sequential Recommendation** (ID:222)
HanBeul Kim (Sungkyunkwan University); CheolWon Na (Sungkyunkwan University); YunSeok Choi (Sungkyunkwan University); Jee-Hyong Lee (Sungkyunkwan University)
4. [Full paper] **Debiasing CLIP with Feature Augmentation and Selective Update to Preserve Zero-shot Capability** (ID:233)
SungJoon Hwang (Sungkyunkwan University); Mann Soo Hong (Sungkyunkwan University); Jee-Hyong Lee (Sungkyunkwan University)

T-1-D [GS-08]

Medical Informatics

Nov. 12 (Tuesday) 10:30-12:30 **Room D**

Chair: Hiroharu Kawanaka (Mie University)

1. [Full paper] **Diffusion-based Augmentation for Lung Cancer Risk Prediction from Temporal CT Images** (ID:33)
Hsing-Chen Meng (National Yang Ming Chiao Tung University); Yi-hui Lin (Taichung Veterans General Hospital); Chun-Rong Huang (National Yang Ming Chiao Tung University); Nai-Wen Shih (Taichung Veterans General Hospital); Shawn Wu (SY Research Institute); Yen-Yu Lin (National Yang Ming Chiao Tung University)
2. [Full paper] **Motion Simulation for Fatigue Reduction and Actual Measurement Using EMG** (ID:245)
Miki Eto (Kumamoto University); Masahiro Migita (Kumamoto University); Masashi Toda (Kumamoto University); Kazuaki Kondo (Kyoto University); Qi An (Tokyo University); Junichi Akita (Kanazawa University); Yuichi Nakamura (Kyoto University)
3. [Abstract-only paper] **Consideration of a Personal Health Record System Based on Citizen Science** (ID:262)
Kohei Yamashita (University of Hyogo); Yusuke Kadono (University of Hyogo); Mizuki Sato (University of Hyogo); Tadamasu Takemura (University of Hyogo)
4. [Abstract-only paper] **A Study on Construction of Fall Prediction Models for Elderly Using Motion Sensor Data** (ID:287)
Ryuji F. Aoki (Mie University); Takumi Kitajima (Mie University); Hiroharu Kawanaka (Mie University)

T-1-E [GS-12]

Neural Networks

Nov. 12 (Tuesday) 10:30-12:30 **Room E**

Chair: Keiji Kamei (Nishinippon Institute of Technology)

1. [Full paper] **Verbal Description Focusing on Physical Properties of Real-World Environments** (ID:152)
Eri Kuroda (Ochanomizu University); Yuki Taya (Ochanomizu University); Ichiro Kobayashi (Ochanomizu University)

2. [Full paper] **UNet-based Land Cover Segmentation with Ensembled Encoder for Fine Details Enhancement** (ID:28)
Steven Christ Pinantyo (Universitas Indonesia); Muhammad Yusuf Kardawi (Universitas Indonesia); Aniaty Murni Arymurthy (Universitas Indonesia); Andie Setiyoko (National Research and Innovation Agency (BRIN)); Muhammad Ridha Adhari (Universitas Syiah Kuala)
3. [Full paper] **Prediction Of Power Demand And Factor Identification Using Sparse Modeling AI With Ensemble Learning For Improvement Of Accuracy** (ID:209)
Tatsuma Hachiya (Kyushu Institute of Technology); Keiji Kamei (Nishinippon Institute of Technology)
4. [Full paper] **A Novel MRI Brain Tumor Detection Method Incorporated Residual Dendritic Learning** (ID:75)
Zhipeng Liu (University of Toyama); Yidong Cao (University of Toyama); ZeYuan Ju (University of Toyama); Qiong Fu (University of Toyama); Yi Ou (University of Toyama); Shangce Gao (University of Toyama)
5. [Full paper] **Multi-Scale Local Feature Fusion-Based Polyp Segmentation Method in Colonoscopy Images** (ID:76)
Yidong Cao (University of Toyama); Zhipeng Liu (University of Toyama); Qiong Fu (University of Toyama); ZeYuan Ju (University of Toyama); Yi Ou (University of Toyama); Shangce Gao (University of Toyama)

T-1-F [SS-09]

Image Processing and Artificial Intelligence for Human-centered Computing

Nov. 12 (Tuesday) 10:30-12:30 **Room F**

Chair: Yoichi Kageyama (Akita University), Hikaru Shirai (Akita University)

1. [Short paper] **Emotional Estimation Method through Fusion of Temporal Skin Temperature and Eye State Changes** (ID:30)
Rio Tanabe (Akita University); Ryota Kikuchi (Akita University); Min Zou (Akita University); Yoichi Kageyama (Akita University); Kenji Suehiro (Cable Networks Akita Co., Ltd.); Nobuaki Takahashi (Cable Networks Akita Co., Ltd.); Hiroki Saito (Cable Networks Akita Co., Ltd.); Takuya Kobayashi (Cable Networks Akita Co., Ltd.); Fumito Watanabe (ALL-A Co., Ltd.); Hisami Satake (ALL-A Co., Ltd.); Naoko Sato (ALL-A Co., Ltd.)
2. [Short paper] **Estimation of water quality status of Lake Hachiroko, Japan, using remote sensing data and water depth and temperature** (ID:53)
Hikaru Shirai (Akita University); Nguyen Thanh Tuan (Akita University); Yoichi Kageyama (Akita University); Miyuki Asano (I. M. Service co., Ltd.); Sayaka Itoh (I. M. Service co., Ltd.)
3. [Short paper] **Distinguishing Identical Pills in Unit-Dose Packages with Balanced Data** (ID:98)
Shuei Tatsumi (Akita University); Min Zou (Akita University); Katsuya Sasaki (Akita University Hospital); Hideaki Kagaya (Akita University Hospital); Nobuhiro Fujiyama (Akita University Hospital); Yoichi Kageyama (Akita University)
4. [Short paper] **Method for Classifying Emotions in Older Adults Playing eSports** (ID:111)
Ryota Kikuchi (Akita University); Yoichi Kageyama (Akita University); Hikaru Shirai (Akita University); Chikako Ishizawa (Akita University); Kenji Suehiro (Cable Networks Akita Co., Ltd.); Nobuaki Takahashi (Cable Networks Akita Co., Ltd.); Hiroki Saito (Cable Networks Akita Co., Ltd.); Takuya Kobayashi (Cable Networks Akita Co., Ltd.); Fumito Watanabe (ALL-A Co., Ltd.); Hisami Satake (ALL-A Co., Ltd.); Naoko Sato (ALL-A Co., Ltd.)

5. [Short paper] **Facial Video Analysis using Eye-tracking data during Japanese Text Reading** (ID:57)
Yudai Ito (Akita University); Chikako Ishizawa (Akita University); Yoichi Kageyama (Akita University)
6. [Full paper] **How close has computer vision become to human image cognition?** (ID:42)
Hiroshi Omori (The University of Tokyo); Kazunori Hanyu (Nihon University)
7. [Short paper] **Measuring Fruit Diameter for Fruit Tree Management Purposes using an RGB-D Camera** (ID:230)
Tepei Fukuda (Akita Prefectural University); Masaki Ishii (Akita Prefectural University); Hidekatsu Ito (Akita Prefectural University); Kohji Dohsaka (Akita Prefectural University)

T-1-G [GS-10] Deep Learning

Nov. 12 (Tuesday) 10:30-12:30 **Room G**

Chair: Yoshifumi Kusunoki (Osaka Metropolitan University)

1. [Full paper] **Automated Depth-Level Classification of Impacted Mandibular Third Molars Using Deep Learning on Panoramic X-Rays** (ID:302)
Md. Anas Ali (Jashore University of Science and Technology); Daisuke Fujita (University of Hyogo); Yuna Makihara (University of Hyogo); Kazuma Noguchi (University of Hyogo); Syoji Kobashi (University of Hyogo)
2. [Full paper] **Automated Detection and Classification of Mandibular Third Molar Impactions in Panoramic X-rays** (ID:303)
Md. Anas Ali (Jashore University of Science and Technology); Daisuke Fujita (University of Hyogo); Syoji Kobashi (University of Hyogo)
3. [Short paper] **ESWL Outcome Prediction with SMOTE and Stratified Sampling** (ID:292)
Soya Kobayashi (University of Hyogo); Daisuke Fujita (University of Hyogo); Hironobu Shibutani (Ishikawa Hospital); Shinsuke Gohara (Ishikawa Hospital); Syoji Kobashi (University of Hyogo)
4. [Short paper] **Detection System for Automotive Engine Governor Based on CNN Algorithm** (ID:81)
JongMin Jeong (Kyungnam University); Jong O Seo (Kyungnam University); Dong Hun Kim (Kyungnam University)
5. [Short paper] **Neural Network Modeling and PID Control for 3- DOF Horizontal Stabilization Platform** (ID:82)
Junhyeong Kim (Kyungnam University); Dong Hun Kim (Kyungnam University)
6. [Short paper] **Swin transformer-based poisonous mushroom classification model** (ID:102)
Gyeong-min Jang (Honam University); Eu-Tteum Baek (Honam University)
7. [Short paper] **Food image classification based on Swin Transformer model** (ID:231)
Hanna Bae (Honam University); Eu-Tteum Baek (Honam University)

T-2-C [SS-14]

Flexible Behavior with Brain and Soft Computing

Nov. 12 (Tuesday) 14:00-15:00 **Room C**

Chair: Suguru N. Kudoh (Kwansei Gakuin University)

1. [Full paper] **Deep Learning-Based Analysis of Neuronal Signal Streams: Estimating the Activity Range of Cultured Neuronal Networks in Consecutive Stimulus Inputs Using CNN** (ID:114)
Hiroki Asada (Kwansei Gakuin University); Suguru N. Kudoh (Kwansei Gakuin University)
2. [Full paper] **Spatiotemporal Comparison of Brain Activities Between Quadruped Image Recognition and Recalling Processes** (ID:63)
Takahiro Yamanoi (Hokkaido University); Hisashi Toyoshima (Hokkaido University); Mika Otsuki (Hokkaido University); Shin-ichi Ohnishi (Hokkai-Gakuen University)
3. [Abstract-only paper] **Place Cells in CNN-based Deep Reinforcement Learning Model** (ID:252)
Aoto Kidachi (Tokyo University of Technology); Masayuki Kikuchi (Tokyo University of Technology)

T-2-D [GS-13]

Bioinformatics

Nov. 12 (Tuesday) 14:00-15:00 **Room D**

Chair: Seiki Ubukata (Osaka Metropolitan University)

1. [Late Breaking paper] **Simulating Multi-target Detection by a Molecular Communication System with Cooperative Gradient Detection** (ID:516)
Mayuka Chiba (Osaka Metropolitan University); Tadashi Nakano (Osaka Metropolitan University)
2. [Late Breaking paper] **A Mechanics-based Computational Model of Vasculogenic Mimicry** (ID:518)
Junning Zhu (Osaka Metropolitan University); Tadashi Nakano (Osaka Metropolitan University)
3. [Late Breaking paper] **Void-Based Analysis of Vascular-Like Networks** (ID:521)
Xichao Wang (Osaka Metropolitan University); Tadashi Nakano (Osaka Metropolitan University)
4. [Late Breaking paper] **DeepInteract: A Graph Transformer-Based Approach for Protein-Ligand Interaction Site Prediction Using Regression** (ID:520)
San Kim (Sungkyunkwan University); Seungjun Lee (Sungkyunkwan University); Sichan Oh (Sungkyunkwan University); Jaekwang Kim (Sungkyunkwan University)

T-2-E [GS-07]

Machine Learning/Data Mining

Nov. 12 (Tuesday) 14:00-15:00 **Room E**

Chair: Yoshifumi Kusunoki (Osaka Metropolitan University)

1. [Full paper] **Enhancing Formation Analysis Using Multi-layer Graph Convolutional Neural Networks and Geometric Formation Features** (ID:47)
Shunsuke Takagi (Meiji University); Yohei Nakada (Meiji University)

2. [Short paper] **The Effect of Different Experimental Settings on Off-Policy Evaluations** (ID:258)
Mariko Sugimura (Ochanomizu University); Ichiro Kobayashi (Ochanomizu University)
3. [Short paper] **Damage Assessment of Concrete Beams based on Fractal Analysis and Drift** (ID:79)
Bunka Son (Kobe University); Mai Kimura (Kobe University); Zhiwei Luo (Kobe University); Yuping Sun (Kobe University)

T-2-F [GS-17]

Distributed Systems

Nov. 12 (Tuesday) 14:00-15:00 **Room F**

Chair: Tomoe Entani (University of Hyogo)

1. [Full paper] **Scalability Evaluation of zk-SNARK Authentication in Blockchain-Based E-Voting** (ID:12)
Arya Wicaksana (Universitas Multimedia Nusantara); Moeljono Widjaja (Universitas Multimedia Nusantara); Matthew Marcellino (Universitas Multimedia Nusantara)
2. [Full paper] **Theoretical Analysis of Transmission Characteristics in PORC-OFDM Systems** (ID:93)
Ritsuki Sato (Shinshu University); Ryo Shibata (Shinshu University); Fumihito Sasamori (Shinshu University)
3. [Full paper] **Performance Comparison between RC-OFDM and PORC-OFDM in Visible Light Communications** (ID:94)
Yuji Akiba (Shinshu University); Ryo Shibata (Shinshu University); Fumihito Sasamori (Shinshu University)

T-2-G [GS-18]

Reinforcement Learning

Nov. 12 (Tuesday) 14:00-15:00 **Room G**

Chair: Yusuke Nojima (Osaka Metropolitan University)

1. [Full paper] **Applying Burn-in Strategy to Deep Reinforcement Learning with Spiking Neural Networks** (ID:46)
Takahiro Iwata (Chiba Institute of Technology); Seankein Yoshioka (Chiba Institute of Technology); Daisuke Miki (Chiba Institute of Technology)
2. [Full paper] **Improving the learning efficiency of hierarchical reinforcement learning SUHRL using transition information between subgoals** (ID:184)
Yuya Kurodo (Chiba Institute of Technology); Yusuke Manabe (Chiba Institute of Technology)
3. [Full paper] **On-time and Energy-saving Optimization of Train Auto Driving Based on Reinforcement Learning** (ID:250)
Cheng Liu (Chiba University); Sachiko Arai (Chiba University)

Award & Closing Ceremony

Nov. 12 (Tuesday) 16:00-16:30