

IES 2018 PROGRAM (Tentative)

Sapporo, Japan, December 20-22, 2018

Conference Day 1 - December 20, 2018 (Thu) Location: Small Auditorium	
12:30 – 16:30	IES 2018 Registration
13:00 – 13:10	Welcome speech by General chair
	Session Thu-1: Smart Systems Chair: <i>Prof. Hiroshi Sato</i>
13:10 – 13:35	A Study on Model-Based Development of Embedded System using Scilab/Scicos with TOPPERS/JSP <i>Masashi Sugimoto, Tomoki Shirakawa and Hitoshi Yoshimura</i>
13:35 – 14:00	Point-cloud Based Geometric Modeling of Hokkaido-Ainu Motifs and Its Manufacturing Method <i>Tashi., Amm Sharif Ullah, Michiko Watanabe and Akihiko Kubo</i>
14:00 – 14:25	Creating Digital Twin of Processed Surface using the Concept of Markov Chain for Industry 4.0 <i>Angkush Kumar Ghosh, Amm Sharif Ullah, Michiko Watanabe and Akihiko Kubo</i>
14:25 – 14:50	El Farol Bar problem by Agreement algorithm based on trial and error behavior at the macro level <i>Phung Nhuhai, Kubo Masao and Sato Hiroshi</i>
14:50 – 15:15	Novelty Search-based Bat Algorithm: Adjusting Distance among Solutions for Multimodal Optimization <i>Takuya Iwase, Ryo Takano, Fumito Uwano, Hiroyuki Sato and Keiki Takadama</i>
15:15 – 15:30	Coffee Break
	Session Thu-2: Complex Systems Chair: <i>Prof. Keiki Takadama</i>
15:30 – 15:55	Analysis of Epidemic of Seasonal Influenza in Closed Space <i>Saori Iwanaga and Keigo Kawaguchi</i>
15:55 – 16:20	The Influence of Social Media Writing on Online Search Behavior for Seasonal Events: The Sociophysics Approach <i>Nozomi Okano, Masaru Higashi and Akira Ishii</i>
16:20 – 16:45	Emergence of Flocking Behaviors with Indirect Reward <i>Hiroshi Sato</i>
16:45 – 17:10	When the Selfish Herd is Unsafe in the Middle <i>Wen-Chi Yang</i>
17:10 – 17:35	Network Analysis and Agent-Based Modeling of Changes in the B2B Networks of the Japanese Textile and Apparel Industry <i>Yusaku Ogai and Yoshiyuki Matsumura</i>
17:35 – 18:00	Opinion Dynamics Theory for Analysis of Consensus Formation and Division of Opinion on the Internet <i>Akira Ishii and Yasuko Kawahata</i>

Conference Day 2 - December 21, 2018 (Fri) Location: Small Auditorium	
08:30 - 14:30	IES 2018 Registration
	Session Fri-1: Swarm Robotics Chair: <i>Prof. Keitaro Naruse</i>
09:00 – 09:25	Towards a Robotic Swarm using Deep Neuroevolution: An Experimental Study in Path Formation <i>Daichi Morimoto, Motoaki Hiraga and Kazuhiro Ohkura</i>
09:25 – 09:50	Leading a swarm of mobile robots via a locally informed teleoperated robot <i>Toshiyuki Yasuda</i>
09:50 – 10:15	Congestion and Autonomous Specialization of Robotic Swarms: The Effect of Body Size <i>Motoaki Hiraga and Kazuhiro Ohkura</i>
10:15 – 10:30	<i>Coffee Break</i>
	Session Fri-2: Machine Learning (1) Chair: <i>Prof. Keiji Suzuki</i>
10:30 – 10:55	The Novel Interactive Picture Book System: IO \exists K <i>Saya Fujino and Naoki Mori</i>
10:55 – 11:20	Prediction of Race Results and Generation of Predicted Articles in Keirin <i>Takumi Yoshida, Soichiro Yokoyama, Tomohisa Yamashita and Hidenori Kawamura</i>
11:20 – 11:45	Vehicle Turn Signal Recognition using Internal features on Convolutional Neural Network <i>Keisuke Yoneda, Ryota Hagi and Naoki Suganuma</i>
11:45 – 12:10	Combined Method of YOLO and IOU Tracker for Tracking and Identifying Chimpanzee <i>Yuichiro Ikeda, Hiroyuki Iizuka and Masahito Yamamoto</i>
12:10 – 13:30	<i>Lunch</i>
13:30 – 14:30	Keynote Speech: System Intelligence For Service Robot Technology, <i>Prof. Hajime Asama, The University of Tokyo</i> Chair: <i>Prof. Takashi Kawakami</i>
14:30 – 14:45	<i>Break</i>
14:45 – 18:00	Technical Tour :Okurayama Ski Jump Stadium, Sapporo Beer Museum
18:30 – 20:30	Banquet Location: Keio Plaza Hotel Sapporo

Conference Day 3 - December 22, 2018 (Sat) Location: Small Auditorium	
08:00 - 12:00	IES 2018 Registration
	Session Sat -1: Swarm Intelligence Chair: <i>Prof. Kazuhiro Ohkura</i>
08:30 – 08:55	A Novel Bare-bones Particle Swarm Optimization Algorithm with Co-evaluation <i>Jia Guo and Yuji Sato</i>
08:55 – 09:20	Evolutionary Learning of Multiple TTSP Graph Structured Patterns from Positive and Negative TTSP Graph Data: Its Graph Pattern Display System and Performance Evaluation <i>Yuuki Yamagata, Fumiya Tokuhara, Yuito Inaba, Kouki Muratani, Tetsuhiro Miyahara, Yusuke Suzuki, Tomoyuki Uchida and Tetsuji Kuboyama</i>
09:20 – 09:45	Modeling of driving force generated by rod wheel with single rod on loose soil <i>Taku Matsumoto, Keita Nakamura and Keitaro Naruse</i>
09:45 – 10:10	The Substitute Worker Selection Method Using Agent-based Simulation <i>Kohei Hatamoto, Soichiro Yokoyama, Tomohisa Yamashita and Hidenori Kawamura</i>
10:10 – 10:25	<i>Coffee Break</i>
	Session Sat-2: Machine Learning (2) Chair: <i>Prof. Tomohisa Yamashita</i>
10:25 – 10:50	Neural Network using Support Vector Machine and Genetic Algorithm <i>Kyoko Ogawa, Naoki Mori and Michifumi Yoshioka</i>
10:50 – 11:15	Memory Augmented Neural Networks with Paired Controllers for One-shot Learning <i>Trung Kien Tran, Hiroshi Sato and Masao Kubo</i>
11:15 – 11:40	Differentiation of communication signals to establish cooperation using Deep Q-Network <i>Hironobu Horiuchi, Hiroyuki Iizuka and Masahito Yamamoto</i>
11:45 – 12:10	Deep Reinforcement Learning Method Enabling Stable Learning in Multi-Agent Environment <i>Kenji Hirata, Hiroyuki Iizuka and Masahito Yamamoto</i>
12:10 – 12:20	<i>Closing Talk</i>