

DAY	JST (UTC+9)	EVENT	CHAIR
Dec. 13th	11:00	Registration Open	
	12:45-13:00	Opening Remark Hirofumi Tanaka (Kyutech)	
	13:00-13:05	SAES Session Opening Hirofumi Tanaka (Kyutech)	Hirofumi Tanaka (Kyutech)
	13:05-14:05	SAES Session-1 [Plenary Talk] Atsuki Higashiyama (Ritsumeikan Univ.) "Psychology of Tactile Perception: Review"	
	14:05-14:25	Break	
	14:25-14:45	SAES Session-2 Deep Banerjee et al. (Kyutech) "Demonstration of single-walled carbon nanotube/Ag-Ag2S in-material reservoir computing device"	Hirofumi Tanaka (Kyutech)
	14:45-15:05	SAES Session-3 Yuki Usami et al. (Kyutech) "Material computing based on electrochemical dynamics"	
	15:05-15:25	SAES Session-4 Masanori Takabayashi et al. (Kyutech) "Numerical Simulations of Optoelectronic AI Hardware using Transmission Matrix of Real Object"	
	15:25-15:45	SAES Session-5 Katsumi Tateno et al. (Kyutech) "Parallel computation of entorhinal cortex-hippocampal spiking neural network and its applications in reward-based maze tasks"	
	15:45-16:15	Break	
	16:15-16:35	SAES Session-6 [Virtual] Enrico di Maria et al. (Kyutech) "Cable modeling by visual data for industrial applications"	Hakaru Tamukoh (Kyutech)
	16:35-16:55	SAES Session-7 Ninnart Fuengfusin et al. (Kyutech) "Embedding Binary Neural Network to Floating-Point Neural Network"	
	16:55-17:15	SAES Session-8 Yuma Yoshimoto et al. (NIT, Kitakyushu College) "Toward Low-Power Intelligent Embedded Systems for Home Service Robot: FPGA Implementation of Binarized Dual-Stream CNN"	
	17:15-17:35	SAES Session-9 Yuichiro Tanaka et al. (Kyutech) "Reservoir-based 1D convolution"	
	17:35-17:40	SAES Session Closing Hakaru Tamukoh (Kyutech)	
	17:40-18:00	Photo Session	
	18:00-20:00	Information Exchange Meeting	
	21:00-23:00	Late Night Discussion	

Dec. 14th	9:00-9:10	JSPS C2C Session-1 [Virtual] Katsuyuki Morishita et al. (Nihon Univ.) "Gait Generation Using Neuromorphic AI Hardware for Legged Robots"	Yuichiro Tanaka (Kyutech)
	9:10-9:20	JSPS C2C Session-2 Keiichi Nakanishi et al. (Kyutech) "Distribution-Free Semi-Supervised Cost Function with a Class-Prior Probability"	
	9:20-9:30	JSPS C2C Session-3 Kazumichi Tanaka et al. (Kyutech) "A rule-based anomaly detection method using binary segmentation as preprocessing"	
	9:30-9:40	JSPS C2C Session-4 Kazuo Nakahara et al. (Kyutech) "Evaluation of Modular Reservoirs Using Chaotic Boltzmann Machines"	
	9:40-9:50	JSPS C2C Session-5 Takumi Kotooka et al. (Kyutech) "Evaluation reservoir computing device with Ag2Se nanowire network"	
	9:50-10:00	Break	
	10:00-10:10	Introduction of JSPS Core-to-Core Takuya Matsumoto (Osaka Univ.)	Takuya Matsumoto (Osaka Univ.)
	10:10-10:50	JSPS C2C Session-6 [Invited Talk-1] James K. Gimzewski (UCLA) "Nanoscale Neuromorphic Networks and Criticality, A perspective and outlook"	
	10:50-11:10	JSPS C2C Session-7 Yuya Ishizaki et al. (Rikkyo Univ.) "Anisotropic Proton Transport in Acrylic Acid-Containing Liquid Crystalline Polymer Thin Films"	
	11:10-11:30	JSPS C2C Session-8 Yuga Ito et al. (Waseda Univ.) "Reservoir computing using graphene/diamond photomemristors"	
	11:30-11:40	Poster Setting	
	11:40-12:25	Poster Session 1 (JSPS C2C Session-9)	Yuki Usami (Kyutech)
	12:25-13:25	Lunch Break	
	13:25-14:10	Poster Session 2 (JSPS C2C Session-10)	Yuichiro Tanaka (Kyutech)
	14:10-14:40	Break & Poster Voting	
	14:40-15:20	General Session-1 [Invited Talk-2] Stephan Henker (Kyutech) "European Neuromorphic Programs: From FACETS to Human Brain Project"	Osamu Nomura (Kyutech)
	15:20-15:40	General Session-2 Terumasa Tokunaga et al. (Kyutech) "Cost-effective deep image segmentation with partial patch annotations based on semi-supervised learning"	
	15:40-16:00	Break	
	16:00-16:20	General Session-3 [Virtual] Bernardo Vallejo-Mancero et al. (UPC) "Compact AER decoding with virtual neuron support in SNN hardware architecture"	Katsumi Tateno (Kyutech)
	16:20-17:00	General Session-4 [Invited Talk-3] Tse-Wei Chen (Canon Inc.) "Algorithm and Hardware Co-design for Lightweight Neural Networks"	
	17:00-17:15	Closing Remark Hirofumi Tanaka (Kyutech)	

Poster Session 1 (11:40-12:25 JST/UTC+9)	
Poster ID	Presenter and Title
P1-1	Yosuke Shimizu, Kazuki Minegishi, and Tsuyoshi Hasegawa, "Frequency dependence of a Ag ₂ S island network reservoir"
P1-2	Takumi Kotooka, Yuki Usami, and Hirofumi Tanaka, "Evaluation reservoir computing device with Ag ₂ Se nanowire network"
P1-3	Ahmet Karacali, Oradee Srikimkaew, Yuki Usami, and Hirofumi Tanaka, "Waveform Generation with Time-Delayed Reservoir Computation with Ag-Ag ₂ S Core-Shell Network Device"
P1-4	Masaya Hakoshima, Yuki Usami, Takumi Kotooka, and Hirofumi Tanaka, "Evaluation of material reservoir computing with noise injection"
P1-5	Yusuke Nakaoka, Takumi Kotooka, Yuki Usami, and Hirofumi Tanaka, "Developing material reservoir computing device using organic material"
P1-6	Ken Arita, Tenma Ueda, Edmund Soji Otabe, Yuki Usami, Hirofumi Tanaka, and Tetsuya Matsuno, "Investigation of the effect of changes in the pinning properties of Type II superconductors on the prediction accuracy of superconducting reservoirs"
P1-7	Yoji Nakamura, John Rex Mohan, Ruoyan Feng, Chisato Yamanaka and Yasuhiro Fukuma, "Nonlinear dynamics of time dependent RF pumping in SOT devices for neuromorphic computing"
P1-8	Akihiro Fukawa, Takuto Nakazawa, Taiga Yamanouchi, Josuke Tamura, Kyosuke Murata, Tomohiro Shimizu, and Kouichi Takase, "Room temperature ferromagnetism VO ₂ nanoparticles prepared by a milling treatment"
P1-9	Keiichi Nakanishi and Terumasa Tokunaga, "Distribution-Free Semi-Supervised Cost Function with a Class-Prior Probability"
P1-10	Kazumichi Tanaka, Sansei Hori, Keiichi Nakanishi, and Terumasa Tokunaga, "A rule-based anomaly detection method using binary segmentation as preprocessing"
P1-11	Takara Ishimoto, Keiichi Nakanishi, Sansei Hori, and Terumasa Tokunaga, "GL-CANomaly: Global and Local adversarial image Completion networks for ANomaly detection"
P1-12	Arie Rachmad Syulistyo, Yuichiro Tanaka, and Hakaru Tamukoh, "Deep Learning Method on Word Level American Sign Language Recognition from Video"
P1-13	Ikuya Matsumoto, Daiju Kanaoka, and Hakaru Tamukoh, "Proposal of Robust Multimodal Learning Model for Object Classification"
P1-14	Michelle Tze-Xin Loo, Ninnart Fuengfusin, Kouki Kimizuka, Saman Azhari, Danny Wee-Kiat Ng, Ban-Hoe Kwan, Yuki Usami, Hirofumi Tanaka, and Hakaru Tamukoh, "Classification of Materials with Tactile Properties using Stacking Ensemble"
P1-15	Benjy Wei-Xiang Yeoh, Ninnart Fuengfusin, Danny Wee-Kiat Ng, Ban-Hoe Kwan, and Hakaru Tamukoh, "Object Detection with Voice Feedback for Blind Assistance"
P1-16	Wei-Ding Wang, Ninnart Fuengfusin, Danny Wee-Kiat Ng, Ban-Hoe Kwan, and Hakaru Tamukoh, "Multi Object Tracking using SORT with Simple Re-Identification"
P1-17	Hitoshi Kubota, Kay Yakushiji, Tomohiro Taniguchi, Shingo Tamaru, Tatsuya Yamamoto, SumitoTsunegi, Atsushi Sugihara, Hikaru Nomura, and Yoshishige Suzuki, "Fabrication of artificial spin ice lattices for reservoir computing"

Poster Session 2 (13:25-14:10 JST/UTC+9)	
Poster ID	Presenter and Title
P2-1	Naruki Hagiwara, Tetsuya Asai, Kota Ando, and Megumi Akai-Kasaya, "3D Conductive Polymer Wiring Synapses for Neuromorphic Wetware"
P2-2	Rio Tomioka and Masanori Takabayashi, "Self-referential holographic deep neural network with single spatial light modulator "
P2-3	Kouki Kimizuka, Saman Azhari, Shuhei Ikemoto, Yuki Usami, and Hirofumi Tanaka, "Weight and position detection by reservoir inspired in-sensor computing device made of CNT-PDMS nanocomposites"
P2-4	Rikuto Oyabu, Yuki Usami, and Hirofumi Tanaka, "Radical initiator dependence of fabrication for hydrophilic graphene nanoribbon by unzipping of DWNT"
P2-5	Yuto Koga, Yuki Usami, and Hirofumi Tanaka, "Bridging graphene nanoribbon between electrodes by dielectrophoresis technique"
P2-6	Yuka Shishido, Osamu Nomura, Katsumi Tateno, Hakaru Tamukoh, and Takashi Morie, "CMOS VLSI implementation of a hippocampal conjunctive place-cue cells network"
P2-7	Katsunori Tamai, Yuichi Katori, Hakaru Tamukoh, Osamu Nomura, and Takashi Morie, "Performance Evaluation of a Reservoir Reinforcement Learning Model Considering Nonlinear Write Characteristics of Analog Memory"
P2-8	Kazuo Nakahara, Yuichi Katori, Osamu Nomura, Hakaru Tamukoh, and Takashi Morie, "Evaluation of Modular Reservoirs Using Chaotic Boltzmann Machines"
P2-9	Ruoyan Feng, Chisato Yamanaka, John Rex Mohan, Arun Jacob Mathew, and Yasuhiro Fukuma, "Reservoir computing with spin Hall oscillators at easy-cone state"
P2-10	Ryosuke Ishibashi, Takumi Nakamura, Noriko Sato, Takeshi Ishihara, Yuichiro Tanaka, Hakaru Tamukoh, and Terumasa Tokunaga, "Reservoir-based neuron model to emulate cellular neural activity responding to odor in <i>C. elegans</i> "
P2-11	Takahiro Fukushima, Kensuke Takada, and Katsumi Tateno, "Emergence of replay of path-dependent place cells in entorhinal cortex-hippocampus spiking neural network on linear track"
P2-12	Akinobu Mizutani, Ichiro Kawashima, Yuichiro Tanaka, Hakaru Tamukoh, Katsumi Tateno, Osamu Nomura, and Takashi Morie, "Hardware-oriented Brain-inspired Model with Memory Accumulation and Recall Functions to Generate Actions of Home Service Robots"
P2-13	Yuga Yano, Yukiya Fukuda, Tomohiro Ono, and Hakaru Tamukoh, "A Visualization System of Personal Characteristics for Human-Robot Interaction in RoboCup@Home"
P2-14	Kosei Isomoto, Yuga Yano, Yuichiro Tanaka, and Hakaru Tamukoh, "Robust Trash Can Lid Opening System"
P2-15	Minoru Motoki, Yu Oshiro, Ryuji Waseda, and Terumitsu Nishimuta, "Actor-Critic Reinforcement Learning Using On-Chip Trainable Multilayer SAM Spiking Neural Network"
P2-16	Saman Azhari, Kouki Kimizuka, Gábor Méhes, Yuki Usami, Yasuhiko Hayashi, Hirofumi Tanaka, and Takeo Miyake, "Remote pressure sensing via wirelessly powered sensor"
P2-17	Dong Han, Tsuyoshi Nakajima, Tomoki Misaka, Taiga Hirota, Takashi Yamada, Hiroshi Ohoyama, and Takuya Matsumoto, "Enhancement of electrical properties and emergence of non-linearities of PCBM network mediated with Au dopants"