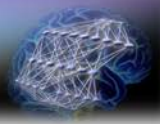


Monday PM1

MonPM1-1		Bio-Inspired / Energy-Efficient Information Processing: Theory, Systems, Devices 1
Chair:		Shigeru Nakagawa, Akira Hirose, Daiju Nakano
Room:		International Conference Hall I
13:20	- 13:40	Exploiting Heterogeneous Units for Reservoir Computing with Simple Architecture Gouhei Tanaka ¹ , Ryosho Nakane ¹ , Toshiyuki Yamane ² , Daiju Nakano ² , Seiji Takeda ² , Shigeru Nakagawa ² , Akira Hirose ¹ ¹ The University of Tokyo ² IBM Research - Tokyo
13:40	- 14:00	Graceful Degradation under Noise on Brain Inspired Robot Controllers Ricardo de Azambuja ¹ , Frederico Klein ¹ , Martin Stoelen ¹ , Samantha Adams ¹ , Angelo Cangelosi ¹ ¹ Plymouth University
14:00	- 14:20	Dynamics of reservoir computing at the edge of stability Toshiyuki Yamane ¹ , Seiji Takeda ¹ , Daiju Nakano ¹ , Gouhei Tanaka ² , Ryosho Nakane ² , Shigeru Nakagawa ¹ , Akira Hirose ² ¹ IBM Research - Tokyo ² The University of Tokyo
14:20	- 14:40	Hybrid Gravitational Search Algorithm with Swarm Intelligence for Object Tracking Henry Fung Yeung ¹ , Guang Liu ¹ , Yuk Ying Chung ¹ , Eric Liu ¹ , Wei-Chang Yeh ² ¹ University of Sydney ² National Tsing Hua University, Taiwan
14:40	- 15:00	Photonic Reservoir Computing Based on Laser Dynamics with External Feedback Seiji Takeda ¹ , Daiju Nakano ¹ , Toshiyuki Yamane ¹ , Gouhei Tanaka ² , Ryosho Nakane ² , Akira Hirose ² , Shigeru Nakagawa ¹ ¹ IBM Research - Tokyo ² The University of Tokyo



Monday PM2

MonPM2-1		Bio-Inspired / Energy-Efficient Information Processing: Theory, Systems, Devices 2
Chair:		Shigeru Nakagawa, Akira Hirose, Daiju Nakano
Room:		International Conference Hall I
15:20	- 15:40	FPGA Implementation of Autoencoders having Shared Synapse Architecture Akihiro Suzuki ¹ , Takashi Morie ¹ , Hakaru Tamukoh ¹ ¹ Kyushu Institute of Technology Graduate School of Life Science and Systems Engineering
15:40	- 16:00	Time-domain Weighted-sum Calculation for Ultimately Low Power VLSI Neural Networks Quan Wang ¹ , Hakaru Tamukoh ¹ , Takashi Morie ¹ ¹ Kyushu Institute of Technology
16:00	- 16:20	A CMOS Unit Circuit Using Subthreshold Operation of MOSFETs for Chaotic Boltzmann Machines Masatoshi Yamaguchi ¹ , Takashi Kato ¹ , Quan Wang ¹ , Hideyuki Suzuki ² , Hakaru Tamukoh ¹ , Takashi Morie ¹ ¹ Kyushu Institute of Technology ² Osaka University
16:20	- 16:40	An attempt of speed-up of Neurocommunicator, an EEG-based communication aid. Ryohei Hasegawa ¹ ¹ AIST
16:40	- 17:00	Computational Performance of Echo State Networks with Dynamic Synapses Ryota Mori ¹ , Gouhei Tanaka ¹ , Ryosho Nakane ¹ , Akira Hirose ¹ , Kazuyuki Aihara ¹ ¹ The University of Tokyo