The 3rd International Symposium on Brainware LSI

February 26-27, 2016

Conference Room, Main Building (M601), RIEC, Tohoku University, Sendai, Japan

Sponsored by 2015 RIEC Collaboration Project Research (PJ#:H26/B09) "Brainware LSI International Joint Research"
and Brainware LSI Project, RIEC, Tohoku University

Tentative Program

---------- February 26 (Friday) ----------

13:00- Registration
13:30-13:40 Opening remarks

<Session 1: Brainware LSI Technologies I >

13:40-14:10 *NVM Neuromorphic Core with 64k-cell (256-by-256) Phase Change Memory*
SangBum Kim (IBM T.J. Watson Research Center, USA)
14:10-14:40 *Brain-Inspired Computing for Variation-Resilient VLSI System*
Masanori Natsui (Tohoku University, Japan)
14:40-15:10 *Snake-like Robot Based on "TEGOTAE-Based Control"*
Takeshi Kano (Tohoku University, Japan)

15:10-15:30 Coffee break

<Session 2: Brainware LSI Technologies II >

15:30-16:00 *Implicit Brain and Explicit Brain -Dual Structure of Intelligence-*
Koichi Osuka (Osaka University, Japan)
16:00-16:30 *Programable architecture for associative memories*
Jean-Philippe Diguet (University of Southern Brittany, France)
16:30-17:00 *AER Spike Detection using Parameterized Associative Memory on BRAMs for SNN Hardware Implementations*
Jordi Madrenas (Technical University of Catalunya, Spain)

17:30-20:30 Open discussion

---------- February 27 (Saturday) ----------

<Session 3: Recognition & Learning in Brainware LSI I >

09:00- 09:30 *Stochastic implementation of auditory filters*
Naoya Onizawa (Tohoku University, Japan)
09:30- 10:00 *The sense of presence and verisimilitude induced by audio, visual and vibrational information*
Shuichi Sakamoto (Tohoku University, Japan)
10:00-10:30 *Computational Auditory Scene Analysis in complex multi-talker scenarios*
Volker Hohmann (University of Oldenburg, Germany)

10:30-10:50 Coffee break

<Session 4: Recognition & Learning in Brainware LSI II >

10:50-11:20 *VLSI implementation of a neural network model for detecting planar surface from local image motion*
Hisanao Akima (Tohoku University, Japan)
11:20-11:50 *Modeling the visual process of contextual cueing effect*
Zheng Xiong Yuan (Tohoku University, Japan)
11:50-12:20 *Psychophysical TMS: delayed fovea noise disrupts discrimination of object details in the visual periphery*
Sheng He (University of Minnesota, USA)

12:20-12:30 Closing remarks