



29th International Workshop on Post-Binary ULSI Systems (ULSIWS2020)

Tentative Program

-14:30 Registration & Lunch

14:30-14:35 Opening Remark
General Chair, Masanori Natsui (Tohoku University, Japan)

Poster Session: Chair **TBD**

14:35-14:45 A delta-sigma modulation feedforward network with improved noise-shaping characteristics
Tomoaki Koizumi, Takao Waho, Hitoshi Hayashi (Sophia University, Japan)

Energy-Efficient ECG Signals Outlier Detection Hardware Using a Sparse Robust Deep Autoencoder
Naoto Soga, Shimpei Sato, Hiroki Nakahara (Tokyo Institute of Technology, Japan)

Parameter Tuning of Real Time Kinematic Positioning Using GPS based on Multi-objective Optimization
Naoto Sekizuka*, Kazuharu Nakajima*, Fuyuki Hane, Yosuke Iijima* (*National Institute of Technology, Oyama Collage, Japan **TOKYO KEIKI INC., Japan)**

Regular Session: Chair **TBD**

14:45-16:00 Two Function Translations for Reversible Circuit Synthesis
Michael Miller, (University of Victoria, Canada)

On a Generation Method of Benchmark Maximally Asymmetric Functions
Shinobu Nagayama, Hiroshi Kanehagi, Masato Inagi, and Shin'ichi Wakabayashi (Hiroshima City University, Japan)

Computing with unknown uncertainties
Patrik Eklund (Umeå University, Department of Computing Science, Sweden)

Autonomous Recognition of Hazardous Areas by a Guide Dog Robot
Taisei Hiramoto and Tomoyuki Araki (Hiroshima Institute of Technology, Japan)

TAI Compiler: Deep Learning Inference Optimizer for an FPGA
Hiroki Nakahara (Tokyo Institute of Technology, Japan / Tokyo Artisan Intelligence Co., Ltd., Japan)

Statistical PAM-4 Eye-Opening Monitor Technique for Adaptive Equalization
Keigo Taya*, Yosuke Iijima, Yasushi Yuminaka* (*Gunma University, Japan **National Institute of Technology, Oyama College, Japan)**

16:00-16:05 Closing
General Chair, Masanori Natsui (Tohoku University, Japan)

Poster: 3 (Talk) minutes for each presentation
Regular: 5 (Talk)+5(Q&A) minutes for each presentation