

北海道大学
HOKKAIDO UNIVERSITY

Poco-a-poco Networks Co. Ltd.

25th International Workshop on Post-Binary ULSI Systems (ULSIWS2016)

Final PROGRAM

9:00-10:00	Registration & Coffee
10:00-10:10	Opening Remark <i>General chair, Hiroki Nakahara (Tokyo Institute of Technology, Japan)</i>
Invited Talk 1: Chair H. Nakahara (Tokyo Institute of Technology, Japan)	
10:10-10:50	Synthesizing Circuits from Software <i>Jason Anderson (University of Toronto, Canada)</i>
10:50-11:00	Brief Break
Invited Talk 2: Chair S. Nagayama (Hiroshima City University, Japan)	
11:00-11:40	Reversible Logic: What's next? <i>Robert Wille (Johannes Kepler University Linz, Austria)</i>
11:40-13:30	Lunch Break
Student Poster Introduction Session I: Chair H. Nakahara (Tokyo Institute of Technology, Japan)	
13:30-13:40	Physical Unclonable Functions Based on Current- and Voltage-Mode MVL Comparator <i>Sha Tao, Elena Dubrova (Royal Institute of Technology, Sweden)</i>
13:40-13:50	Side channel Security Evaluation for KCipher-2 Software on Smart Cards <i>Wataru Kawai, Rei Ueno, Naofumi Homma, Takafumi Aoki (Tohoku University, Japan), Kazuhide Fukushima, Shinsaku Kiyomoto (KDDI R&D Laboratories, Inc., Japan)</i>
13:50-14:00	GPU Accelerated Genetic Algorithms for Quantum Circuit Synthesis <i>Martin Lukac, Georgiy Krylov (Nazarbayev University, Kazakhstan)</i>
14:00-14:05	Brief Break
Student Poster Introduction Session II: Chair H. Nakahara (Tokyo Institute of Technology, Japan)	
14:05-14:15	Construction of Illustration Evaluating System <i>Ryuichi Murakami, Noriaki Muranaka (Kansai University, Japan)</i>
14:15-14:25	Power Analysis on Unrolled PRINCE Processor and its Countermeasure <i>Ville Yli-Mayry, Naofumi Homma, Takafumi Aoki (Tohoku University, Japan)</i>
14:25-14:35	Optimized Realizations of Expressions for HDL-based Synthesis of Reversible Logic Circuits <i>Zaid Alwardi (University of Bremen, Germany), Robert Wille (Johannes Kepler University Linz, Austria), Rolf Drechsler (University of Bremen, Germany)</i>
14:35-14:40	Brief Break
Student Poster Introduction Session III: Chair H. Nakahara (Tokyo Institute of Technology, Japan)	
14:40-14:50	Enhancement of Reactive Countermeasure against Side-Channel Attacks with Microprobing <i>Daisuke Ishihata, Naofumi Homma (Tohoku University, Japan), Yu-ichi Hayashi (Tohoku Gakuin University, Japan), Noriyuki Miura (Kobe University, Japan), Daisuke Fujimoto (Yokohama National University, Japan), Makoto Nagata (Kobe University, Japan), Takafumi Aoki (Tohoku University, Japan)</i>
14:50-15:00	Design Automation of a Power-Aware Nonvolatile FPGA <i>Yuki Tabata, Daisuke Suzuki, Takahiro Nanyu (Tohoku University, Japan)</i>
15:00-15:10	Source Encoding of Fuzzy Information and Error Detection after Transmission <i>Yu Ohashi, Tomoki Kanamitsu, Tomoyuki Araki, Shunji Maeda (Hiroshima Institute of Technology, Japan)</i>
15:10-15:30	Coffee Break

40 minutes (including Q&A) for Invited Talk,
1 hour for Special Session,
15 (Talk)+5(Q&A) minutes for Regular Session,
15 (Talk only) minutes for Student Poster Session

Final PROGRAM

Invited Talk 3: Chair J. Haslett (University of Calgary, Canada)

15:30-16:10 *Analog-to-Digital Converters Using Artificial Neural Network: A Review*
Takao Waho (Sophia University, Japan)

16:10-16:20 Brief Break

Regular Session: Chair K. Tanno (Miyazaki University, Japan)

16:20-16:45 Relationships Between Vectorial Bi-Decompositions and Strong EXOR-Bi-Decompositions
Bernd Steinbach (Freiberg University of Mining and Technology, Germany)

16:45-17:10 The Coming of Age of Stochastic Computing: What Works, What Doesn't, and What Just Might
Vincent Gaudet (University of Waterloo, Canada), **Katherine Zukotynski** (McMaster University, Canada)

17:10-17:20 Closing
ULSIWS2016 General chair, Hiroki Nakahara (Tokyo Institute of Technology, Japan)

18:00- ISMVL2016 Reception & Student Poster Session

40 minutes (including Q&A) for Invited Talk,
20 (Talk)+5(Q&A) minutes for Regular Session,
10 (Talk only) minutes for Student Poster Introduction Session