

19th Conference

RECONFIGURABLE UBIQUITOUS COMPUTING



RUC'2016

THURSDAY, 2nd June, 2016

9:00 – 9:15 Conference Opening

9:15 – 10:45 SECTION: Methods and Tools

Chairman: Aleksandr Cariow

1. *Mariusz Wiśniewski, Stanisław Deniziak, Konrad Kurczyną*
Kielce University of Technology
Optimization problems in the synthesis of multiple-valued logic networks
2. *Stanisław Deniziak, Paweł Paduch*
Kielce University of Technology
Scheduling of Task Graphs in the High Performance Computing as a Service Clouds
3. *Valery Salauyou*
Białystok University of Technology
Minimization of finite state machines by states merging
4. *Valery Salauyou*
Białystok University of Technology
Use of hierarchical structures for designing of high-speed digital comparators on FPGA/SoC
5. *Aleksandr Cariow, Galina Cariowa*
West Pomeranian University of Technology Szczecin
Hardware-Efficient Algorithms for Implementation of the GHM Discrete Multiwavelet Transform Kernels
6. *Zbigniew Szymański, Krzysztof Gracki, Marek Pawłowski, Andrzej Skorupski*
Warsaw University of Technology
Instruction driven CPU in the FPGA structure

10:45 – 11:15 Coffee Break

11:15 – 13:00 SECTION: Applications

Chairman: Valery Salauyou

1. *Tadeusz Sondej, Marcin Maciejewski*
Military University of Technology
A Low-Power Autonomous Sensor Module for Biomedical Applications
2. *Bartłomiej Gajewski, Tomasz Martyn*
Warsaw University of Technology
Spatial Data Clustering in independent Mobile Environment
3. *Sławomir Jaszczak, Piotr Nikończuk*
West Pomeranian University of Technology Szczecin
Preliminary analysis of temperature control of spray booth using PWM modulation with dynamic trigger period

4. *Tomasz Łokietek, Sławomir Jaszczak*

West Pomeranian University of Technology Szczecin

The energy efficiency monitoring of the refrigeration unit

5. *Przemysław Mazurkiewicz*

Poznan University of Technology

An Open source SCADA application in a small automation system

6. *Karolina Kossowska, Tomasz Kossowski, Ryszard Stasiński*

Poznan University of Technology

Non-invasive blood glucose measurement

7. *Piotr Kaczmarek, Jakub Tomczyński, Tomasz Mańkowski*

Poznan University of Technology

Test bench setup with programmable trajectory for IMU-based dataglove development

13:00 – 14:00 Lunch

14:00 – 15:30 SECTION: Hardware Acceleration

Chairman: Ernest Jamro

1. *Maciej Parol, Paweł Dąbal, Ryszard Szplet*

Military University of Technology

Pseudo-random bit generators based on linear-feedback shift register in programmable device

2. *Tomasz Kryjak, Krzysztof Mazur*

AGH University of Science and Technology

Embedded vision-based tracking system for autonomous robot navigation

3. *Michał Karwatowski, Maciej Wielgosz, Marcin Pietroń, Kazimierz Wiatr*

AGH University of Science and Technology

Real time 8K video quality assessment using FPGA

4. *Paweł Russek, Michał Karwatowski, Ernest Jamro, Kazimierz Wiatr*

AGH University of Science and Technology

The custom co-processor for the discovery of Low Autocorrelation Binary Sequences

5. *Łukasz Matuszewski, Paweł Kubczak*

Poznan University of Technology

Proposal of output speed multiplication technique for true random number generators based on ring oscillators

6. *Marek Kraft, Jakub Tomczyński, Tomasz Mańkowski, Michał Fularz*

Poznan University of Technology

An FPGA-based proof of concept solution for datacenter energy efficiency improvement

18:00 – 22:00 Banquet (Cafe 22)

PAZIM Building, pl. Rodła 8