

The 5th Small Systems Simulation Symposium

Niš, Faculty of Electronic Engineering, 12-14 February, 2014

Preliminary program

Wednesday, February 12, 2014

10.00 Registration of the participants

Registration desk in front of Room 1, Faculty of Electronic Engineering, A. Medvedeva 14, Niš

11.00 Welcoming Address, President of the Steering Committee and President of the Organizing Committee

Plenary lecture, Room 1

Chair Dr Tomasz J. Kazmierski, University of Southampton

11.10 *"Behavioural Simulation of 60 GHz FMCW Radar Using CppSim Simulator"*, Dušan Krčum, Dušan Grujić, **Milan Savić (speaker)**, and Lazar Šaranovac, NovellC Microsystems, Omladinskih brigada 86p, Belgrade 11000, Serbia

12.00 Cocktail and lunch, Restaurant at the Faculty of Electronic Engineering, Niš

Advanced analog design, Room 1

Chair Prof. Branko Dokić, University of Banja Luka

13.30 *"High PSRR Gain-Boosted Rail-To-Rail OTA"*,
Vazgen Melikyan (speaker), Arthur Sahakyan S., Svetlana Poghosyan M., Armen Sahakyan S., Vahe Babayan S. Department of Microelectronics Circuits and Systems, State Engineering University of Armenia, Teryan 105, 0009, Armenia Yerevan

14.00 *"The Correlated Level Shifting as a Gain Enhancement Technique for Comparator Based Integrators"*,
Vazgen Melikyan (speaker), Hayk Dingchyan, Artak Hayrapetyan, Arthur Sahakyan, Vardan Grigoryants, Vahe Babayan and Ashot Martirosyan, Department of Microelectronics Circuits and Systems, State Engineering University of Armenia, Teryan 105, 0009, Armenia Yerevan

14.30 *"Wideband Low Noise Amplifier for Long Term Evolution Systems"*,
Jelena Mišić (speaker), Vera Marković, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia

- 15.00 *"Testing Capacitors' Hard Defects in Notch SC Filters Using the Oscillation Method"*,
Miljana Milić (speaker) and Vančo Litovski, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia
- 15.30 *"Analog Design Challenges in Advanced CMOS Process Node"*,
Dejan Mirković (speaker), Predrag Petković and Dragiša Milovanović, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia
- 16.00 *"SPICE Model of a Linear Variable Capacitance"*,
Miona Andrejević Stošović, **Marko Dimitrijević (speaker)**, and Vančo Litovski, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia
- 16.30 *"Analysis of Outdoor Emissions from Printed Circuit Board Enclosed in Metallic Box with Aperture"*,
Jugoslav Joković (speaker), Nebojša Dončov, Bratislav Milovanović and Tijana Dimitrijević, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia
- 19.00 Symposium diner, Kompleks Vidikovac, Mokranjčeva 70, Niš

Thursday, February 13, 2014

Components and systems, Room 1

Chair Prof. Slobodan Bojanić, Universidad Politecnica de Madrid

- 09.00 *"Analysis of Electronic Structure of Carbon Nanotubes"*,
Mariya Spasova (speaker), George Angelov, Anna Andonova, Tihomir Takov, and Marin Hristov, Faculty of Electronic Engineering and Technology, Technical University of Sofia, 8 Kliment Ohridsky blvd.
- 09.30 *"RFIC Passive Component Design and Simulation in Python"*,
Dušan Grujić (speaker), Pavle Jovanović, Dušan Krčumb, and Milan Savić, NovellC Microsystems, Omladinskih brigada 86p, Belgrade 11000, Serbia
- 10.00 *"Analysis and Simulation of the Impact of Traps Generated at Si/SiO₂ Interface and in Semiconductor Bulk Due to HEFS on MOSFET's Electrical Characteristics"*,
Sanja Aleksić (speaker), Danijela Pantić, and Dragan Pantić, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia
- 10.30 *"Wireless Ad Hoc Network Simulation in Cloud Environment"*,
Leonid Djinevski (speaker), Sonja Filiposka, Igor Mishkovski and Dimitar Trajanov, Faculty of Information and Communication Technologies, FON University, Av. Vojvodina 5, 1000 Skopje, Macedonia
- 11.00 *"Simulation of Dynamic Characteristic of L-branch Selection Combining Diversity Receiver in Nakagami-m Environment"*,

- Dragan Drača, **Aleksandra Panajotović (speaker)**, and Nikola Sekulović, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia
- 11.30 *"Single Phase System for Detection of Harmonic Pollution Sources at Power Grid"*, **Dejan Stevanović (speaker)**, Predrag Petković and Volker Zerbe, Innovation Centre of Advanced technologies, Niš, Serbia, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Srbija, and Technical University Erfurt, Germany
- 12.00 *"Application of a Bidirectional Electricity Meter in the 5kw Grid-Connected Photovoltaic Power Plant"*, **Zoran Petrušić (speaker)**, and Andrija Petrušić, Innovation Centre of Advanced Technologies, Niš, Serbia.
- 12.30 *"Natural Patterns for Design and Control of Bi-Whegs in Quadruped Robot"*, Goran S. Đorđević, **Miloš Petković (speaker)**, Darko Todorović, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Srbija
- 13.00 *"Parallel Circuit Simulation on Graphical Processing Unit"*, **Aram Baghdasaryan (speaker)**, Synopsys Armenia, CJSC 3PhD students, State Engineering University of Armenia Yerevan, Armenia
- 13.30 Lunch, Restaurant at the Faculty of Electronic Engineering, Niš

Advanced digital design, Room 1

Chair Prof. Predrag Petković, University of Niš

- 14.00 *"Synthesis Of Application Specific Processor Architectures for Ultra-Low Energy Consumption"*, **Tom Kazmierski (speaker)**, and Charles Leech, School of Electronics and Computer Science, University of Southampton, Southampton, UK
- 14.30 *"New Fault Tolerant Design Methodology Applied to Middleware Switch Processor"*, **Vladimir Petrović (speaker)**, Marko Ilić, Gunter Schoof, and Zoran Stamenković, Innovations for High Performance, IHP GmbH, Im Technologiepark 25, 15236 Frankfurt Oder, Germany, **Invited lecture**
- 15.00 *"HDL IP Cores System as an Online Testbench Provider"*, **Vladimir Zdraveski (speaker)**, Andrej Dimitrovski and Dimitar Trajanov, Department of Information Systems and Network Technologies, Faculty of Computer Science and Engineering, "Ss. Cyril and Methodius" University, Ruger Boskovik 16, 1000 Skopje, Macedonia
- 15.30 *"Computer Workstation Vetting by Supply Current Monitoring"*, **Marko Dimitrijević (speaker)**, Miona Andrejević Stošović, Octavio Nieto, Slobodan Bojanić, and Vančo Litovski, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia and Universidad Politecnica de Madrid.
- 16.00 *"Glitch Free Clock Switching Techniques in Modern Microcontrollers"*,

Borisav Jovanović (speaker), Milunka Damnjanović, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia

16.30 *"Testing an SCA Hardened Combinational Standard Cell - Preliminary Considerations"*,
Milena Stanojlović (speaker), Vančo Litovski and Predrag Petković, Elektronski fakultet Niš, Aleksandra Medvedeva 14 Niš, Serbia

17.00 *"FPGA Realization of AES Algorithm"*,
Ana Krkljić (speaker), Branko Dokić and Velibor Škobić, Elektrotehnički fakultet, Patre 3, Banja Luka, B&H

17.30 *"FPGA Implementation of Montgomery Modular Multiplier"*,
Velibor Škobić (speaker), Branko Dokić and Željko Ivanović, Elektrotehnički fakultet, Patre 3, Banja Luka, B&H

Friday, February 14, 2014

10.00 Sightseeing of Niš

13.00 Participation to the "Sveti Trifun" celebration with lunch and orchestra