

WOSET 2019 Agenda

<http://woset-workshop.github.io>

08:30 – 09:00 Introduction and Keynote

08:30 – 08:35. Opening statement (Sherief Reda)

08:35 – 09:00. The New Golden age of Open Silicon.

Keynote speaker: Tim Edwards.

09:00 – 10:20 Session 1: HDL and Synthesis

Session chair: Pierre-Emmanuel Gaillardon

09:00 – 09:10. Generic Logic Synthesis meets RTL Synthesis

Heinz Riener, Mathias Soeken, Eleonora Testa and Giovanni De Micheli

09:10 – 09:20. Skeletor Connector Language: Hierarchy Specification to HDL development made easy

Ivan Rodriguez-Ferrandez, Guillem Cabo, Javier Barrera, Jeremy Giesen, Alvaro Jover-Alvarez and Leonidas Kosmidis

09:20 – 09:30. LNASt: A Language Neutral Intermediate Representation for Hardware Description Languages

Sheng-Hong Wang, Akash Sridhar and Jose Renau

09:30 – 09:40. RTLog Framework: Yet another open HDL and compiler, this time for Relative-Timing design

Roberto Simone, Pablo D'Angelo, Ian Sztenberg, Francisco Javier Badenas, Francisco Dominguez, Agustin Ortiz, Guillermo Makar and Roberto Suaya

09:40 – 09:50. Approximate Logic Synthesis Using BLASYS

Jingxiao Ma, Soheil Hashemi and Sherief Reda

9:50 – 10:20. First poster and Demo Session (all papers)

Mid-morning Coffee Break (beverages only)

10:20 – 11:10 Session 2: DBs and Libraries

Session chair: Matthew Guthaus

10:20 – 10:30. OpenROAD OpenDB Database Abstract

Tom Spyrou

10:30 – 10:40. LGraph: A Unified Data Model and API for Productive Open-Source Hardware Design

Sheng-Hong Wang, Rafael Trapani Possignolo, Qian Chen, Rohan Ganpati and Jose Renau

10:40 – 10:50. A unified memory compiler for synchronous and asynchronous circuits

Samira Ataei and Rajit Manohar

10:50 – 11:00. A Grid-based Technology-Independent Analog Cell Generator

Arvind K. Sharma, Meghna Madhusudan, Kishor Kunal, Wenbin Xu, Yaguang Li, Tonmoy Dhar, Jitesh Poojary, Vidya A. Chhabria, Steven M. Burns, Parijat Mukherjee, Desmond A. Kirkpatrick, Jiang Hu, Ramesh Harjani and Sachin S. Sapatnekar

11:00 – 11:10. EvoApproxLib: Extended Library of Approximate Arithmetic Circuits

Vojtech Mrazek, Zdenek Vasicek and Lukas Sekanina

11:10 – 11:30 Second Poster and Demo Session (all papers)

11:30 – 12:00. (Invited) Growing your open-source Projects

Tsung-Wei Huang

12:00 – 13:00. Lunch

13:00 – 13:50 Session 3: Analysis Tools

Session chair: Rajit Manohar

13:00 – 13:10. Latest Developments in the Xyce Large-Scale Analog Circuit Simulator

Jason Verley, Eric R. Keiter and Heidi Thornquist

13:10 – 13:20. A Machine Learning Based Parasitic Extraction Tool

Geraldo Pradipta, Vidya A. Chhabria and Sachin S. Sapatnekar

13:20 – 13:30. Fault, an Open Source DFT Toolchain

Mohamed Gaber, Manar Abdelatty and Mohamed Shalan

13:30 – 13:40. Puffery: An Open-Source Benchmark Tool for PUFs

Hunter Nichols and Matthew Guthaus

13:40 – 13:50 TherMOS: A Thermal model for analyzing self-heating in advanced MOSFETs

Vidya A. Chhabria, Arvind K. Sharma, Meghna G. Mankalale, and Sachin S. Sapatnekar

13:50 – 14:30 Third Poster and Demo Session (all papers)

Afternoon Coffee Break (beverages only)

14:30 – 15:10 Session 4: Digital Design Tools (03:45 – 05:00)

Session chair: Sherief Reda

14:30 – 14:40. An open road knows no borders: The contributions of UFRGS-UCSD partnership to the OpenROAD project

Vitor Bandeira, Mateus Fogaça, Jiajia Li, Eder Matheus Monteiro, Isadora Oliveira, Ricardo Reis and Mingyu Woo

14:40 – 14:50. OpenNPDN: Neural Networks for Automated Power Delivery Network Synthesis

Vidya Chhabria, Andrew Kahng, Minsoo Kim, Uday Mallappa, Sachin Sapatnekar and Bangqi Xu

14:50 – 15:00. OGRE: Open-Source Global Router

Habiba Gamal, Ali El-Said, Fady Mohamed and Mohamed Shalan

15:00 – 15:10. Toward a digital flow for asynchronous VLSI systems

Samira Ataei, Yi-Shan Lu, Jiayuan He, Wenmian Hua, Sepideh Maleki, Yihang Yang, Rajit Manohar and Keshav Pingali

15:10 – 15:30 Fourth Poster and Demo Session (all papers)

15:30 Announcement of best tool winner

15:30 – 04:15 Panel: Open-Source EDA: A Gap Analysis

Moderator: Andrew B. Kahng

Panelists: Tim Ansell, Tim Edwards, Matt Guthaus, Michael Taylor