

Synopsys ASIP University Day 2022 Presenter Bios

Dominik Auras, Senior Applications Engineer, Synopsys

Dominik Auras is a Senior Applications Engineer for ASIP Tools at Synopsys. Before he joined the ASIP Tools group in 2018, he worked as a post-doctoral researcher at the Chair for Integrated Signal Processing Systems at the RWTH Aachen University. Dominik holds Dr.-Ing. (PhD) and Dipl.-Ing. (MSc) degrees in Computer Engineering from RWTH Aachen University. His university research focused on the design of ASICs for mobile receivers.

Maria Auras-Rodriguez, Senior Software Engineer, Synopsys

Maria Auras-Rodriguez joined the ASIP Designer R&D Team in January 2019. Her main activity focuses on the support to ASIP Designer's HDL Generator tool, including the synthesis support offer for ASIPs. She holds a Master's degree in Embedded Systems Design from ALaRI, University of Lugano. Before joining Synopsys, she worked as a researcher at the Institute for Communication Technologies and Embedded Systems (ICE) at RWTH Aachen University.

Erik Brockmeyer, Senior Applications Engineer, Synopsys

Erik Brockmeyer received his Master's degree in Electrical Engineering in 1998 from the University of Eindhoven, the Netherlands. He worked for 10 years at the Interuniversity Micro Electronics Center (IMEC) on application optimizations for data transfers and storage. Initially his work focused on mapping applications efficient to a memory hierarchy, and later shifted to multi-processor systems with a shared distributed memory. In 2008 he joined Target Compiler Technology as application engineer. In this role he developed many different ASIPs for various application domains. He continued this role when Target was acquired by Synopsys.

Jashandeep Dhaliwal, Junior Fellow, Experimental Physics Department, CERN

Jashandeep Dhaliwal is a junior fellow in the Micro-Electronics section of the Electronic Systems for Experiments group under the Experimental Physics department at CERN. He recently completed his Master's degree in Micro and Nanotechnologies for Integrated Systems, which is a double-joint master's degree among the universities of Politecnico di Torino, Grenoble INP Phelma, and École Polytechnique Fédérale de Lausanne (EPFL). He conducted his master's thesis in the Micro-Electronics section at CERN.



Lucas Ferreira, Doctoral Student, Integrated Electronics Systems, Lund University

Lucas Ferreira was born in São Paulo, Brazil, 1993. He received his bachelors both in Science and Technology, and Automation and Control Engineering respectively at Federal University of ABC 2015-2017 (São Paulo). In 2019 he received his M.Sc. degree in Embedded Electronics from Lund University. Since May 2019, he is working at the department of Electrical and Information Technology, Lund University as a doctoral candidate. His main focus of research is on domain-specific processor design with focus on computer vision, machine learning, and autonomous drones.

Falco Munsche, Technical Marketing Manager, Synopsys

Falco Munsche is the Technical Marketing Manager for Synopsys' ASIP Designer tools. Previously he worked for a total of 20 years as Application Engineer and Software Engineer of ASIP Design tools for Synopsys and CoWare, and as a Design Consultant for Synopsys.

He holds a Ph.D. (2002) and Dipl.-Ing. degree (1995) in Electrical Engineering from RWTH Aachen University.

Mircea R. Stan, Virginia Microelectronics Consortium Professor, ECE Department, University of Virginia

Mircea R. Stan received the Ph.D. (1996) and the M.S. (1994) degrees from UMass Amherst and the Diploma (1984) from the Polytechnic Institute in Bucharest, Romania. Since 1996 he has been with the ECE Department at UVa, where he is now the Virginia Microelectronics Consortium (VMEC) professor. Prof. Stan is teaching and doing research in the areas of high-performance low-power VLSI, temperature-aware circuits and architecture, embedded systems, spintronics, and nanoelectronics. He leads the High-Performance Low-Power (HPLP) lab, is an associate director of the Center for Automata Processing (CAP), and is on the leadership council for the Link Lab. He was a visiting faculty at UC Berkeley in 2004-2005, at IBM in 2000, and at Intel in 2002 and 1999. He received the 2018 Influential ISCA Paper Award (For 2003 paper "Temperature-aware microarchitecture"), the NSF CAREER award in 1997 and was a co-author on best paper awards at ASILOMAR19, LASCAS19, SELSE17, ISQED08, GLSVLSI06, ISCA03 and SHAMAN02 and IEEE Micro Top Picks in 2008 and 2003. He gave keynotes at DCAS18, SOCC16, CogArch16, WoNDP15, iNIS15 and CNNA14. He was the chair of the VSA-TC of IEEE CAS in 2005-2007, general chair for ISLPED06 and GLSVLSI04, TPC chair for SOCC18, ISVLSI17, NanoNets07 and ISLPED05, and on technical committees for numerous conferences. He is Associate Editor-in-Chief for the IEEE TVLSI, Senior Editor for the IEEE TNano, AE for IEEE Design & Test, and was an AE for the IEEE TNano in 2012-2014, IEEE TCAS I in 2004-2008 and for the IEEE TVLSI in 2001-2003. He was Guest Editor for the IEEE Computer special issue on Power-Aware Computing in December 2003 and a Distinguished Lecturer for the IEEE Circuits and Systems (CAS) Society in 2020-2021, 2012-



2013 and 2004-2005, and for the Solid-State Circuits Society (SSCS) in 2007-2008. Prof. Stan is a fellow of the IEEE, a member of ACM, and of Eta Kappa Nu, Phi Kappa Phi and Sigma Xi. His h-index is 55 and his i10-index is 150.

Moussa Traore, Polytechnique Montréal

Moussa Traore is a Software Engineer at Google where he is working on Augmented Reality problems. He holds a Bachelor's and Master's degree in Computer Engineering from Polytechnique Montréal. He previously worked at Munic.io and Genetec on topics ranging from communication protocols to GPU usage optimization. His research interests range from tensor factorization techniques to pruning and quantizing neural networks.

Patrick Verbist, Product Marketing Manager, Synopsys

Patrick Verbist is the Product Marketing Manager for Synopsys' ASIP Designer tools. Previously he was Business Development Manager and Field Application Engineer for the ASIP Designer tools and, prior to the acquisition by Synopsys in 2014, Director of Sales at Target Compiler Technologies. Before Target, Patrick worked for 12 years as Business Development Manager for imec in Belgium and San Jose (US). He holds a Master's degree in Electrical Engineering from KU Leuven, Belgium.

