

Synopsys ASIP University Day 2023 Presenter Bios

Björn Hartmann, R&D Engineer, Synopsys

Björn Hartmann joined the Synopsys ASIP Designer R&D team in October 2022. His main activity focuses on ASIP Designer's support for formal verification. He has a Master's degree in Electrical Engineering, Information Technology and Computer Engineering from RWTH Aachen University. Before joining Synopsys, he worked as research assistant at the Institute for Communication Technologies and Embedded Systems (ICE) at RWTH Aachen University and as firmware developer in the audio industry.

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.

Faizan Qureshi, Chair of Mobile Communications, Dresden University of Technology

Faizan Qureshi is currently affiliated with the Chair of Mobile Communications at Dresden University of Technology in Germany. His research focuses on enhancing the efficiency of 5G modem baseband kernels running on Synopsys' vDSP architecture, leveraging valuable insights from the ASIP Designer tool. He has been working since 2.5 years on this topic at the department.

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.

Lennart Reimann, ICE Chief Engineer, RWTH Aachen University

Lennart Reimann operates as the chief engineer of the Institute of Communication Technologies and Embedded Systems (ICE) at RWTH Aachen University. In his role, he is designing innovative project proposals, is actively involved in collaborative research with academia and industry, and adeptly coordinates tasks within his team. In 2019 he started working toward his Ph.D. as a research assistant at ICE under the supervision of Prof. Leupers. In this context, he works on early design exploration for dedicated processors and hardware security. Lennart received his Bachelor's and Master's degrees in Electrical Engineering from RWTH Aachen University in 2016 and 2019, respectively.

Mohammad Attari, Lund University

Mohammad Attari is currently a PhD student in the Digital ASIC research group in the Electrical and Information Technology (EIT) department at Lund University. His research focuses on developing Massive MIMO and next generation baseband communications processors. His interests include (but are not limited to) computer architecture, domain specific architectures, accelerator-level parallelism, application specific instruction set processors (ASIP), neural networks, and cross-level hardware-software (-algorithm) co-design and implementation.

Patrick Verbist, Product 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.

Robin Geens, Leuven University

Robin Geens graduated from the Master of Electrical Engineering: Electronics and Chip Design at KU Leuven in July 2023. The subject of his master's thesis was the development of a RISC-V-based processor extended with custom instructions to accelerate Post-Quantum Cryptography. Since September 2023, he has been engaged in cutting-edge research at COSIC, KU Leuven. His current focus is on the development of custom hardware implementations for Fully Homomorphic Encryption, a field of cryptography with far-reaching implications for secure data processing and privacy preservation.

Yimin Gao, University of Virginia

Yimin Gao is currently working towards his Ph.D. degree at the University of Virginia, Charlottesville, VA, USA. He received his M.S. degree in Electrical Engineering from the University of Virginia in 2022 and B.E. dual degrees in Electrical Engineering from University of Cincinnati and Chongqing University in 2020. His current research interests include Reconfigurable Computer Architecture, AI hardware, RISC-V ISA Extension, Processing in Memory and Hardware Emulation.