Title	*Open Parallel Ultra-Low Power Platforms for Extreme Edge AI*
Speaker	**Luca Benini**
	ETHZ, Switzerland

Abstract

Edge Artificial Intelligence is the new megatrend, as privacy concerns and networks bandwidth/latency bottlenecks prevent cloud offloading of sensor analytics functions in many application domains, from autonomous driving to advanced prosthetic. The next wave of "Extreme Edge AI" pushes aggressively towards sensors and actuators, opening major research and business development opportunities. In this talk I will give an overview of recent efforts in developing an Extreme Edge AI platform based on open source parallel ultra-low power (PULP) Risc-V processors and accelerators. I will then look at what comes next in this brave new world of hardware reinaissance.
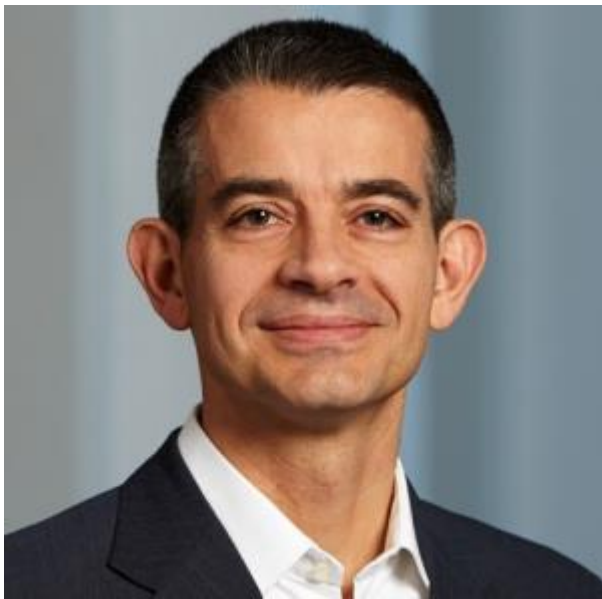
Biography

Luca Benini holds the chair of digital Circuits and systems at ETHZ and is Full Professor at the Universita di Bologna. He received a PhD from Stanford University. He has been visiting professor at Stanford University, IMEC, EPFL. In 2009-2012 he served as chief architect in STmicroelectronics France. Dr. Benini's research interests are in energy-efficient computing systems design, from embedded to high-performance. He is also active in the design ultra-low power VLSI Circuits and smart sensing micro-systems. He has published more than 1000 peer-reviewed papers and five books. He is an ERC-advanced grant winner, a Fellow of the IEEE, of the ACM and a member of the Academia Europaea. He is the recipient of the 2016 IEEE CAS Mac Van Valkenburg award and of the 2019 IEEE TCAD Donald O. Pederson Best Paper Award.