

# Welcome, New Faculty!



**Kerem Camsari**

Assistant Professor in Electrical and Computer Engineering

Kerem received his PhD degree in electrical and computer engineering from Purdue University in 2015, where he continued as a post-doctoral researcher between 2015 and 2020, before joining the ECE department at UCSB in 2020.

His PhD work established a modular approach to connect a growing set of emerging materials and phenomena to circuits and systems. In his postdoctoral work, he used this approach to establish the concept of p-bits and p-circuits as a bridge between classical and quantum circuits to design efficient, domain-specific hardware accelerators in the new, beyond-More era of electronics.

Kerem's work has been published in many

journals and conferences including Nature, Nature Electronics, Science Advances, and Physical Review X. He has delivered more than a dozen invited talks in international conferences and workshops, including American Physical Society (APS) March Meeting, IEEE Device Research Conference (DRC), Magnetism and Magnetic Materials (MMM) Conference, the IEEE International Electron Devices Meeting (IEDM) and the International Conference on VLSI Design (VLSID).

Kerem served on the technical program committee for Design, Automation and Test in Europe Conference (DATE) in 2020 and in 2021. He has also served on the technical program committee of the IEEE Conference on Rebooting



**Bongjin Kim**

Assistant Professor in Electrical and Computer Engineering

Bongjin received his PhD degree from the University of Minnesota in 2014. After receiving his PhD, he worked on design techniques and methodologies for communication circuits and microarchitectures at Rambus and Stanford University as a senior staff and a postdoctoral research fellow. In 2017, he went on to work as an assistant professor at Nanyang Technological University in Singapore, until he joined the ECE department at UCSB in 2020.

His research team develops innovative integrated circuits and system solutions using traditional CMOS logic and emerging technologies to solve challenging problems in fundamental science and accelerate computations and communications. Target applications include, but not limited to,

artificial intelligence, machine learning, robotics, and alternative computing.

He received the Doctoral Dissertation Fellowship Award at the University of Minnesota and the International Symposium on Low Power Electronics and Design Contest Award (ISLPED). His research works have been published in peer-reviewed conferences and journals, including the International Solid-State Circuits Conference (ISSCC), VLSI Symposium, Custom Integrated Circuits Conference (CICC), and Journal of Solid-State Circuits (JSSC). He has served on the technical program committee for Design Automation Conference (DAC) and the IEEE Solid-State Circuits Letter (SSC-L) editorial review board.



**Nina Miolane**

Assistant Professor in Electrical and Computer Engineering

Nina Miolane received her MS in Mathematics from Ecole Polytechnique, France, and Imperial College, UK, her PhD degree in computer science from INRIA, France, in collaboration with Stanford, and spent two additional years at Stanford in Statistics during her postdoc. She also worked as a deep learning software engineer in Silicon Valley for several years. At UCSB, Nina directs the BioShape Lab, whose goal is to explore the "geometries of life." Her research investigates how the shapes of proteins, cells, and organs relate to their biological functions, how abnormal shape changes correlate with pathologies, and how

these findings can help design new automatic diagnosis tools. Her team is also co-developing the open-source Geomstats library, a package that provides methods at the intersection of geometry and machine learning, to compute with geometric data such as biological shape data. Nina has extensively published in the field, is a co-author on the reference book Riemannian Geometric Statistics for Medical Imaging, a co-inventor on several patents, serves on the scientific committees of several international conferences, and was the recipient of the L'Oréal-UNESCO for Women in Science Award.