ECE SEMINAR

ARMIN TAJALLI

Assistant Professor
University of Utah

Thursday, October 11, 2018 at 11:00 am
8 Saint Mary's Street, Room 339
Faculty Host: Rabia Yazicigil
Refreshments will be available at 10:45 am
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NETWORK-IN-PACKAGE FOR LOW-POWER HIGH-PERFORMANCE COMPUTING

Abstract:

Modern multi-core multi-processor computing systems rely on high-bandwidth data communication between different units in such distributed systems. Chip-to-chip communication over very short distances is now becoming a very hot and demanding topic of research. Due to heat, yield, and performance concerns, many companies are moving toward multi-chip-module (MCM) SoCs. In such systems, the data rate as well as energy consumption are extremely crucial. Due to stringent power budget, industry is seeking out for new design methodologies to implement very dense and energy-efficient links. The main focus of this talk is on techniques to implement such high-performance links over copper. Using novel circuit architectures in conjunction with low ISI sensitivity signaling method allows to implement very energy-efficient and very high-speed links.

Biography:

Armin Tajalli received his B.S. from Sharif University of Technology, Tehran, Iran, and the Ph.D. from Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland. He was part of initiating team and a Senior Analog Architect with Kandou Bus, Lausanne, Switzerland (2010-2017). Since December 2017, he has joined as an Assistant Professor to the University of Utah, Salt Lake City, USA. He has published more than 80 articles in peer reviewed journals and conferences, and has filed 29 patents. He has received several awards, including The Best Paper Award in DesignCon (2016), PhD Prime Award at EPFL, Switzerland (2010), and IEEE AMD/CICC Scholarship (2009).

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