2024 IEEE INTERNATIONAL SYMPOSIUM ON ELECTROMAGNETIC COMPATIBILITY, SIGNAL & POWER INTEGRITY

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2024 GLOBAL SIGNAL INTEGRITY & POWER INTEGRITY (SIPI) UNIVERSITY

Prof. Christian Schuster and Prof. Francesco de Paulis

IEEE SPI Workshop, Lisbon, May 12-15, 2024

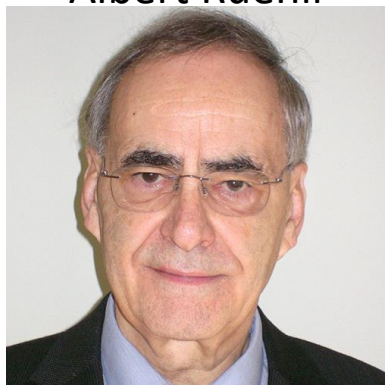
1st Global SIPI University on August 7, 2024

TIME	TOPIC	PRESENTER/INSTRUCTOR
08:30 – 9:00	**Registration / Introductions**	**Christian Schuster** and **Francesco de Paulis**
09:00 – 09:45	**Opening:** Historical and latest modeling and simulation challenges for signal and power integrity	**Dr. Albert Ruehli** *(Missouri University of Science and Technology)* **Mr. Stephen Scearce** *(Cisco Systems)*
09:45 – 10:30	**Keynote:** Global industry trends and demands from a system and packaging perspective	**Dr. Kemal Aygün** *(Intel)*
10:30 – 10:45	**Coffee Break / Networking**	
10:45 – 11:30	**Signal Integrity I:** Passive interconnect design, lumped effects, transmission line effects	**Dr. Bhyrav Mutnury** *(Dell EMC)*
11:30 – 12:15	**Signal Integrity II:** Active link design, Tx/Rx design, line coding and equalization	**Dr. Wendem Beyene** *(Meta)*
12:15 – 13:30	**Lunch Break / Networking**	
13:30 – 14:15	**Signal Integrity III:** Signal integrity measurements and simulation	**Dr. Eric Bogatin** *(University of Colorado, Boulder)*
14:15 – 15:30	**Power Integrity I:** Fundamentals of power integrity with practical analysis techniques for current and emerging designs	**Dr. Ihsan Erdin** *(Celestica)*
15:30 – 15:45	**Coffee Break / Networking**	
15:45 – 16:30	**Power Integrity II:** VRM, package/IC-level PDN design	**Dr. Chulsoon Hwang** *(Missouri University of Science and Technology)*
16:30 – 17:30	**The Future of SI & PI Engineering:** Open discussion with all instructors and attendees	**Christian Schuster** and **Francesco de Paulis**

Instructors

Opening

Albert Ruehli



Stephen Scearce



Keynote

Kemal Aygün



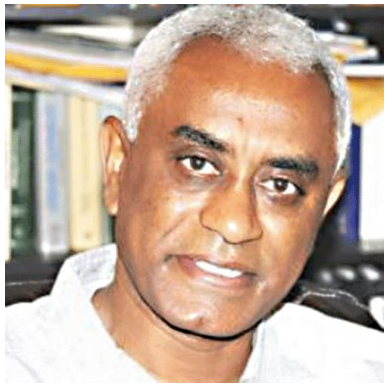
Signal Integrity I

Bhyrav Mutnury



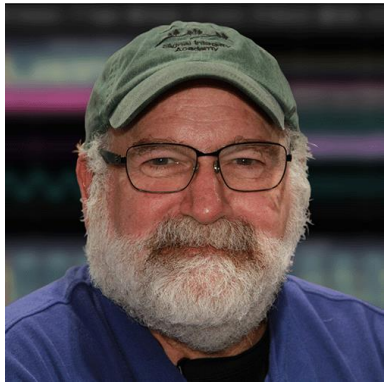
Signal Integrity II

Wendem Beyene



Signal Integrity III

Eric Bogatin



Power Integrity I

Ihsan Erdin



Power Integrity II

Chulsoon Hwang



CHAIR:
Christian Schuster
Hamburg University of Technology, Germany



Christian Schuster (IEEE Senior Member) received a Diploma degree in Physics in 1996 and a Ph.D. degree in electrical engineering in 2000. Since 2006, he is a Full Professor at Hamburg University of Technology (TUHH), Germany. Prior to TUHH he was with the IBM T. J. Watson Research Center, Yorktown Heights, NY. His current interests include signal and power integrity of digital systems, multiport measurement and calibration techniques, and development of electromagnetic simulation methods for communication electronics. He serves as an Associate Editor for the IEEE Transactions on EMC as well as an Adjunct Associate Professor at the School of Electrical and Computer Engineering of the Georgia Institute of Technology.

schuster@tuhh.de

CO-CHAIR:
Francesco de Paulis
University of L'Aquila, L'Aquila, Italy



Francesco de Paulis (Senior Member IEEE) received the M.S. degree in Electrical Engineering in May 2008 from Missouri University of Science and Technology (formerly University of Missouri-Rolla), USA, and the Ph.D. degree in Electrical and Information Engineering in 2012 from the University of L'Aquila, L'Aquila, Italy. He is currently an Associate Professor at the Electromagnetic Compatibility and Signal Integrity Laboratory at the University of L'Aquila. His main research interests are in signal and power integrity, high speed channel design and optimization, composite materials for shielding and absorption, RF interference in mixed-signal system, TSVs in silicon chips and interposers, antenna design and measurement techniques, remote fault detection in transmission lines, microwave design of electronic devices and systems for space applications.

francesco.depaulis@univaq.it