

Monday, September 23rd, 2019 – Tutorials, Workshop

TIME							
8:00-8:30	Registration						
8:30-10:00	Nanoscale Technology, Transistor Modeling & IC Design	Circuits and Systems Enabling Quantum Technologies	5G Radios: Concepts, Systems, and Silicon	Low-power RF and Analog Circuits	Basics of Jitter and Phase Noise	Technologies and Devices for IoT	Heterogeneous Integration of Nanomaterials and Innovative Devices
10:00-10:30	Coffee						
10:30-13:00	Nanoscale Technology, Transistor Modeling & IC Design	Circuits and Systems Enabling Quantum Technologies	5G Radios: Concepts, Systems, and Silicon	Low-power RF and Analog Circuits	Basics of Jitter and Phase Noise	Technologies and Devices for IoT	Heterogeneous Integration of Nanomaterials and Innovative Devices
13:00-14:00	Lunch						
14:00-15:30	Nanoscale Technology, Transistor Modeling & IC Design	Circuits and Systems Enabling Quantum Technologies	5G Radios: Concepts, Systems, and Silicon	Low-power RF and Analog Circuits	Basics of Jitter and Phase Noise	THz Science, Technologies and Applications	Heterogeneous Integration of Nanomaterials and Innovative Devices
15:30-16:00	Coffee						
16:00-18:30	Nanoscale Technology, Transistor Modeling & IC Design	Circuits and Systems Enabling Quantum Technologies	5G Radios: Concepts, Systems, and Silicon	Low-power RF and Analog Circuits	Basics of Jitter and Phase Noise	THz Science, Technologies and Applications	Heterogeneous Integration of Nanomaterials and Innovative Devices
18:30-20:00	Young Professional Meeting						

Tuesday, September 24th, 2019

TIME	Main Auditorium A	Main Auditorium B	Small Aula	Conference Room	Medium Aula A	Medium Aula B	Seminar Room
8:00-8:30	Registration						
8:30-9:00	Conference Opening & Welcome						
9:00-9:40	Joint Plenary 1: Edoardo Charbon, EPFL, Cryo-CMOS: 60 Years of Technological Advances towards Emerging Quantum Technologies						
9:40-10:20	Joint Plenary 2: Franck Arnaud, STMicroelectronics, 28nm FDSOI Platform with Embedded PCM for IoT, ULP, Digital, Analog, Automotive and Others Applications						
10:20-11:00	Coffee						
11:00-12:20	Analog Techniques	High Performance Oscillators	Hardware Security Circuits	Biomedical Interfaces	Focus Session I: Challenges for Power Devices & Merging Microelectronics with Optics		WBG and Si Devices for Power and RF
12:20-14:00	Lunch						
14:00-15:20	Imaging and Radiation	PLLs	Digital Interface and Compensation Circuits	Energy Harvesting	Focus Session II: MEMS, Sensors & Advanced Integration Technologies		Compact Modeling under Cryogenic Conditions
15:20-15:50	Coffee						
15:50-16.30	ESSCIRC Keynote 1: Ram K. Krishnamurthy, Intel, Machine Learning and Hardware Security Technologies for the IoT Era: Challenges and Opportunities	ESSDERC Keynote 1 Michael Heuken, AIXTRON AG, GaN Based HEMT Technology for Power and RF Applications					
16:40-18:00	Analog Systems	Temperature Sensors	TX Techniques		Focus Session III: Advanced Semiconductor Process & Device Technologies in Europe		FET Devices for Sensing Applications
18:00-19:00	ESSCIRC TPC Mtg	ESSDERC TPC Mtg					
19:00-21:00	Welcome Reception: AGH Main Building – A0						

Women in Circuit Meeting is planned on Sept. 24th, 2019 – time slot will be added later

Wednesday, September 25th, 2019

TIME	Main Auditorium A	Main Auditorium B	Small Aula	Conference Room	Medium Aula A	Medium Aula B	Seminar Room
8:00-8:45	Presentation on ESSCIRC/ESSDERC 2020						
8:45-9:00	Award Ceremony						
9:00-9:40	Joint Plenary 3: Toshio Yanagida, Osaka University, Single Molecule Nano-Science: Noise and Function of Life						
9:40-10:20	Coffee						
10:20-12:00	High Resolution SAR ADC	Wireless RX	mm-Wave Frequency Multipliers	Machine Learning and Accelerators	Advanced and Emerging Memories	Non-Conventional Devices	Modeling of Compound Semiconductor Devices
12:00-13:30	Lunch						
13:30-14:10	ESSCIRC Keynote 2 Jeff Walling, Tyndall National Institute, The Switched - Capacitor Power Amplifier: a Key Enabler for Future Communications Systems	ESSDERC Keynote 2 Subhasish Mitra, Stanford University The N3XT 1,000X for the Coming Superstorm of Abundant Data: Carbon Nanotube FETs, Resistive RAM, Monolithic 3D					
14:20-15:40	Amplifiers and Filters	Wireline	Power Management	Chapter Meeting	Analog/RF	Hardware for Neuromorphic Computing	Advances in MOSFET Modeling
15:40-16:00	Coffee						
16:00-16:30	Bus departure to Wieliczka Salt Mine – Gala Dinner						

Thursday, September 26th, 2019

TIME	Main Auditorium A	Main Auditorium B	Small Aula	Conference Room	Medium Aula A	Medium Aula B	Seminar Room
9:00-9:40	Joint Plenary 4 Donhee Ham, Harvard University, Copying Brain with Semiconductor Technology						
9:40-10:20	Coffee						
10:20-12:00	High-Speed ADC	Sensor Interfaces	Millimeter-wave power amplifiers	Memory-Centric Design	Modeling of Trap Effects and Noise	Photonic and Microwave Devices	Multi-Physics Modeling
12:00-13:30	Lunch						
13:30-14:10	ESSCIRC Keynote 3: Pieter Harpe, TU Eindhoven, Low-Power SAR ADCs: trends, Examples and Future	ESSDERC Keynote 3 Jong-Ho Lee, Seoul National University, Review of Candidate Devices for Neuromorphic Applications					
14:20-15:40	Sigma-Delta and Time-Based ADC	Wireless TX	RX and Imaging Techniques		Derivative Technologies	Optical and Thermal Sensors	Advanced Device Modeling