2025 Korea-Finland Chip Design Symposium

"Chips Shaping the Future"

When: Friday, September 12, 2025
09:00 ~ 17:30

Where: Aalto University
H304, Otakaari 1, 02150 Espoo, Finland

Host: Embassy of the Republic of Korea in Finland
Aalto University
Aalto Microelectronics Research Center (METKA)

Organizer:
Prof. Kwantae Kim
Aalto University, Finland

Time	Topic	Speaker
08:30	Reception / Morning Coffee	
Session 1: Opening		
9:00	Introduction to the Symposium	**Prof. Kwantae Kim** Aalto University, Finland
9:15	Congratulatory Remarks	**Ambassador Jung-Ha Kim** Embassy of the Republic of Korea in Finland
9:20	IC Design Research at Aalto University	**Prof. Jussi Ryynänen** Aalto University, Finland
Session 2: Innovations in Sensor Interfaces		
9:40	Analog Circuits Beyond the Believed Fundamental Limits	**Prof. Taekwang Jang** ETH Zurich, Switzerland
10:00	From Single-Function Sensors to Smart Sensor Systems	**Markus Hiienkari** Bosch Sensortec, Finland
10:20	Break / Networking	
10:30	Analog/Mixed-Signal ICs for Next Generation Integrated System	**Prof. Dong-Woo Jee** Ajou University, South Korea
10:50	Towards Future Sensor Integration	**Dr. Jerry Lemberg** Saab Finland, Finland
11:10	Break / Networking	
Session 3: AI Accelerators and Systems		
11:20	Various Design Approaches to AI Acceleration: CIM to NPU	**Prof. Kyuho Lee** Yonsei University, South Korea
11:40	Mixing Deep-Neural-Networks and Spiking-Neural-Networks for the Best of Both Worlds	**Prof. Sangyeob Kim** Yonsei University, South Korea
12:00	Lunch at Silinteri (Restaurant Alvari)	Otakaari 1 D, 02150 Espoo

Session 4: Highlights on Microelectronics and Automatic Generation of Analog ICs		
13:00	Microelectronics in Finland Today - and How We Got Here	**Dr. Toni Mattila** Business Finland, Finland
13:20	Programmatic Design Methodologies for Mixed-Mode Systems and Analog Circuits	**Prof. Marko Kosunen** Aalto University, Finland
13:40	Automatic Generation of High-Performance Circuits	**Prof. Jaeduk Han** Hanyang University, South Korea
14:00	Break	
Session 5: ICs for Telecommunication, Neural Recording, and Neuromorphic Applications		
14:20	Novel Microprocessor Architectures for Telecom — Challenges and Enablers	**Matthew Goode** Nokia, Finland
14:40	High-Density Neural Recording ICs for Next-Generation Neurotechnology	**Dr. Yoontae Jung** imec, Belgium
15:00	Analog Neuromorphic ICs for Extreme Edge AI	**Dr. Jacek Flak** VTT, Finland
15:20	Break	
Session 6: Innovations in mmWave ICs		
15:40	Progress in Design and Integration for Near-THz Wireless Communications Systems	**Dr. Yves Baeyens** Nokia Bell Labs, United States
16:00	mmWave/sub-THz Transceivers for Advanced 5G/6G Applications	**Prof. Aarno Pärssinen** University of Oulu, Finland
16:20	Break	
Session 7: Advances in Quantum Circuits and Systems		
16:40	KQCircuits – Open-Source Layout Library for Designing Chips with Super Conducting Qubits.	**Pavel Smirnov-Ylikangas** IQM, Finland
17:00	Cryogenic Solutions and Challenges	**Dr. Leif Roschier** Bluefors, Finland
Session 8: Closing		
17:20	Closing Remarks / Group Photo	**Prof. Kwantae Kim** Aalto University, Finland
17:30	Banquet at Fat Lizard	Tietotie 1, 02150 Espoo

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Tiny Systems and Circuits (TSirc) Group, Aalto University