



Technical Meeting Solid-State Circuit Society Chapter Poland

July 1st, 2026, 12:00 – 14:00 (CEST)
C-2/429



Prof. Weileun Fang

“Leveraging Semiconductor Eco-systems to MEMS”

Abstract: Microelectromechanical systems (MEMS) are becoming key enabling technologies for next-generation sensing, actuation, IoT, and intelligent robotic systems. In this talk, Prof. Weileun Fang will present the research activities of the Micro Devices Laboratory (MDL) at National Tsing Hua University and the role of the Micro Sensors and Actuators Technology Consortium (μ SAT) in fostering collaboration between academia and industry. The presentation will highlight recent advances in CMOS-MEMS and MEMS-on-CMOS technologies, including infrared, humidity, pressure, gas, and tactile sensors, as well as piezoelectric MEMS actuators such as micro-scanners and micro-speakers. Examples of successful technology transfer, foundry-based MEMS development, and system-level integration for applications ranging from environmental monitoring and LiDAR to human-machine interfaces and humanoid robotics will be discussed. The talk will demonstrate how a strong MEMS ecosystem can accelerate innovation, talent development, and commercialization, enabling the “5 Senses + AI” vision for future intelligent systems.



Bio: Weileun Fang was born in Taipei, Taiwan. He has over 30 years of experience in the MEMS field. He received his Ph.D. from Carnegie Mellon University in 1995, focusing on determining the mechanical properties of thin films, and joined National Tsing Hua University (Taiwan) in 1996, where he is currently a Chair Professor. He was a visiting associate at Caltech in 1999 and was named an IoP Fellow in 2012 and an IEEE Fellow in 2015. His research interests include MEMS with emphasis on micro-fabrication/packaging technologies, CMOS MEMS, PZT-MEMS, and micro sensors/actuators. Prof. Fang has published nearly 200 SCI journal papers and 450 international conference papers, holding 100 patents. He serves as the Chief Editor of JMM (IoP), Topical Editor of IEEE Sensors J., and Board Member of IEEE TDMR. A prominent leader in the international MEMS community, he was the General Chair of Transducers'17, World Micromachine Summit (MMS) 2012, and Industry Program Chair of IEEE MEMS'25. He has also served as the TPC Chair of IEEE Sensors'12 and on the International Steering Committee for Transducers between 2011–2019. To date, Prof. Fang has graduated over 60 Ph.D. and 140 Master's students, most of whom work in leading MEMS and semiconductor companies like TSMC, UMC, ASE, and Apple. Highly active in industry-academia collaboration, he is the Vice Chairman of the SEMI Taiwan MEMS and Sensors Committee, and serves as a technical consultant for numerous MEMS companies.

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Chair Professor

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