UNIVERSITÀ DI PAVIA
Department of Electrical, Computer and Biomedical Engineering

NATIONAL PHD SCHOOL IN MICRO AND NANO ELECTRONICS

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January 18th, 2023, 4PM
Magenta Seminar Room
Dept. ECBE, D Floor

Industrial Topics in Microelectronics and Photonics - Seminars

FinFET and Beyond: An Overview on Advanced CMOS Technology

Abstract: This seminar will present the status of advanced CMOS technology based on FinFET. Moreover, we will provide on overview on the most recent research advances and trends in device architecture, design-technology co-optimization, 3D integration, and FEOL and BEOL process. The academia and the semiconductor industry are introducing new innovations that will sustain the Moore's Law beyond FinFET, allowing the development and industrialization of new applications in high-performance and cloud computing, artificial intelligence, autonomous driving, and 5G and satellite communications, which are among the main drivers of the on-going digital transformation.

Speaker: Davide Pandini (STMicroelectronics)

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Speaker: Davide Pandini holds a Ph.D. in Electrical and Computer Engineering from Carnegie Mellon University, US. He was a research intern at Philips Research Labs. in Eindhoven, and at Digital Equipment Corp. Western Research Labs. in Palo Alto. In 1995, he joined STMicroelectronics in Agrate Brianza, Italy, where he is a Technical Director, a Fellow of the Technical Staff, and the Chairman of ST Italy Technical Staff. His current research interests include advanced CMOS technologies, power optimization, and reliability. He authored and coauthored more than fifty papers in international journals and conferences and received the ST Corporate STAR Gold Award in 2008 and 2020, and the STRIVE Gold Award in 2022 for R&D excellence. Dr. Pandini serves on the Advisory Board of DET, Politecnico di Torino, and is a member of the Forum on Research and Innovation of Regione Lombardia. He holds the CMT and MFTA designations in the field of financial technical analysis and was the winner of the 2021 John Brooks Memorial Award, the highest recognition in financial technical analysis awarded by the International Federation of Technical Analysts.