UNIVERSITÀ DI PAVIA
Department of Electrical, Computer and Biomedical Engineering

PHD SCHOOL IN MICROELECTRONICS

Industrial Topics in Microelectronics - Seminars

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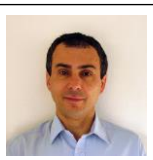
More Moore
The Moore's Law is not dead!

March 22nd, h 16.00, Magenta Seminar Room (D Floor)

Zoom Link for remote connection

Department of Electrical, Computer and Biomedical Engineering

Abstract: *More than a half century ago (April 1965) a young engineer at Fairchild Semiconductor, named Gordon E. Moore, predicted that the number of circuit components that could be economically crammed onto an integrated chip would be steadily doubling year after year (aka "The Moore's Law"). By successfully staying on an exponential trajectory for more than 50 years, the semiconductor industry has fueled the spectacular growth of the Information Technology with such a profound and beneficial impact on the progress of our society and of our communities. However, given the many billions of dollars required to build a new fab line, and the fundamental physical limits of silicon technology scaling, many people have predicted that the Moore's Law is about to come to an end. In this talk, we will show how radical innovations developed in the semiconductor industry, such as the FinFET device, have successfully kept the Moore's Law alive. Moreover, we will also outline a theoretical model which frames the Moore's Law within the Evolutionary Theory.*


Speaker

Speaker: Davide Pandini holds a Ph.D. in Electrical and Computer Engineering from Carnegie Mellon University, Pittsburgh, US. He was a research intern at Philips Research Labs in Eindhoven, the Netherlands, and at Digital Equipment Corp., Western Research Labs. in Palo Alto, CA. He joined STMicroelectronics in Agrate Brianza, Italy, in 1995, where he is a Technical Director and a Fellow of the Technical Staff. His current research interests include advanced CMOS technologies, power analysis and power integrity, reliability, and 5G/RF design. Dr. Pandini was a WP manager in several European Projects, has authored more than fifty papers in international journals and conferences. From 1998 to 2000, he was a visiting Professor at the University of Brescia, Italy, and has served on the program committee of several international conferences, among which DAC, DATE, ICCD, and ESSCIRC. Dr. Pandini received the ST Corporate STAR Gold Award in 2008 and 2020, for leading R&D projects in EMC and FinFET. Since June 2015, he is the Chairman of the Steering Committee of the ST Italy Technical Staff. Among his other interests, Dr. Pandini is a Certified Financial Technician (CFTe) of the International Federation of Technical Analysts, he has earned the Chartered Market Technician (CMT) designation from the CMT Association, and he is a Professional Member of the Societa' Italiana di Analisi Tecnica. He served as Volunteer at Universal Exhibition Expo2015, in Milano, Italy.

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