UNIVERSITÀ DI PAVIA
Department of Electrical, Computer and Biomedical Engineering

National PhD School in Micro and Nano Electronics

Nov. 8th, 2023, 4PM
Magenta Seminar Room
Dept. ECBE, D Floor

Industrial Topics in Microelectronics and Photonics - Seminars

Electrical Over Stress phenomena: protections and test

- **Abstract:** Electrical Overstress (EOS) and Electrostatic Discharge (ESD) are the majors causes of integrated circuits failure, this is the reason why it is necessary that designers know the causes of EOS stress and the structures and methodology to prevent these sources of failures. This presentation describes: the EOS phenomena and the main sources of EOS events, what is the ESD stress and the associated models, how the ESD protections work and how the ESD network is designed.

Speaker: Giuseppe Meola

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Giuseppe Meola After graduating in Physics in 1999, he started working at STMicroelectronics in 2001 as an expert for the prevention of EOS/ESD failures. In parallel to this activity, he worked on the development of an integrated Hall sensor and a Schottky diode in BCD technology and on the study of Single Event Effect phenomena from heavy ions for applications in radioactive environments. He collaborated with the Universities of Catania, Messina and Palermo as a supervisor for four theses in Electronic Engineering. Since 2011 he has been part of ST's Technical Staff.