



Industrial Topics in Microelectronics and Photonics - Seminars

Introduction to DSP Based High Speed Serial Links

Abstract: This seminar trye to give an introduction of the intricate world of Serializer/Deserializer (SerDes) technology, a critical component in modern electronic systems, spanning applications from data centers to consumer electronics. SerDes acts as the digital communication bridge between high-speed data sources and their analog counterparts, enabling seamless and efficient data transfer over various media. The seminar delves into the fundamental principles behind SerDes technology, elucidating the key concepts such as serialization, deserialization, data encoding, clock recovery, and equalization with the hope of quip the participant with the foundations and nomenclature necessary to explore such a challenge electronic component.

Speaker: Gabriele Minoia



Gabriele Minoia received the M.S. degrees in electrical engineering from the University of Pavia, Italy, in 2006. He has 15+ years of experience on several analog design aspects of high-speed communications, from Electro/Optical interfaces to electrical serial and parallel interfaces. Since 2018 he is with Marvell Italy as Principal Analog engineer, where he is currently involved in the design of Frequency Synthesizers for next generation optical DSP. He holds different patents and publications on main international conferences and journals, mainly in the field of high-speed communications.