

SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING

Website: <https://cde.nus.edu.sg/ece>

Area: Microelectronic Technologies & Devices (MTD)

Host: Prof Ang Kah Wee

TOPIC	:	Algorithm-Architecture Co-design for Automotive ISP
SPEAKER	:	Prof Quan Pan Southern University of Science and Technology, China
DATE	:	Thursday, 14 August 2025
TIME	:	10:00AM to 11:00AM
VENUE	:	ECE Conference Room (E4-05-39)

ABSTRACT

Low-power wireline integrated circuits have become extremely attractive since they are extensively adopted in high-speed communications, such as local area networks, board-to-board, and data center-to-data centers. In this talk, we will introduce energy-efficient 56-224Gbps/lane links with sophisticated equalizations and modulations are studied, including analog front-ends, high-speed drivers, and crosstalk cancellations among multi-channel systems. Moreover, high-speed optical communication ICs have been very charming in recent years, including transimpedance amplifiers, continuous-time linear equalizers, decision feedback equalizers, feedforward equalizers, MZM/VCSEL/DML drivers and clock data recovery circuits.

BIOGRAPHY

Quan Pan (Senior Member, IEEE) received his B.S degree in Electrical Engineering (EE) at University of Science and Technology of China (USTC) in 2005, and his Ph.D. degree in Electronics and Computer Engineering (ECE) at the Hong Kong University of Science and Technology (HKUST) in 2014. From 2014 to 2018, he was Senior Staff Engineer in one Silicon Valley startup company, working on 400GbE high-speed SerDes. He joined in the School of Microelectronics, Southern University of Science and Technology as an assistant professor in 2018 and now a tenured full professor. His research interests include High-speed optical transceiver, wireless and wireline circuit design. Dr. Pan has contributed more than 80 peer-reviewed articles. He received the 2017 Outstanding Young Author Award of IEEE Circuits and System Society. He serves as an active reviewer for many international journals, including JSSC, TCAS, TVLSI, JLT, PTL, JoS, and et al.



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