

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: Dr Evgeny Zamburg

TOPIC	:	Integrated lithium niobate photonic circuit with high-speed EO conversion
SPEAKER	:	Ms Chen Mohan Graduate Student, ECE Dept, NUS
DATE	:	Monday, 19 January 2026
TIME	:	2:00PM-3:00PM
VENUE	:	Join Zoom Meeting https://nus-sg.zoom.us/j/81173406454?pwd=SA0XrwpvyEHIfMLFdakQHDOE2GyqB.1 Meeting ID: 811 7340 6454 Passcode: 185690

ABSTRACT

In this seminar, we will introduce a high-speed, accurate and low-energy consumption Lithium niobate (LN) EO-modulator demonstrated for ultrafast signal processing. Addressing electro-optic conversion bottlenecks, this work demonstrates a thin-film lithium niobate (TFLN) computing circuit achieving 43.8 GOPS/channel at 0.0576 pJ/OP. Validated through accurate image classification, the system features heightened integration with a hybrid laser and photodiode. This establishes TFLN as a scalable, high-performance platform for next-generation photonic computing and signal processing.

BIOGRAPHY

Mohan Chen is currently student under the supervision of Prof. Aaron Thean with Department of Electrical and Computer Engineering (ECE), National University of Singapore (NUS). Her current research interests are LN EO devices.

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