SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
Faculty of Engineering
Website: https://www.eng.nus.edu.sg/ece/

Area: Microelectronic Technologies & Devices

Host: Dr Bowei Dong

TOPIC	**:**	**Characterization Of Localized Flexural Acoustic Lamb Wave For Acoustofluidic Actuation**
SPEAKER	**:**	**Mr Philippe Vachon** **Graduate Student, ECE Dept, NUS**
DATE	**:**	**Friday, 23 April 2021**
TIME	**:**	**3.00PM to 3.30PM**
WEBINAR	**:**	**Join Zoom Meeting** **https://nus-sg.zoom.us/j/81436321818?pwd=U3VqNVNmNC95QXZDUnE2aHZwbjArZz09** **Meeting ID: 814 3632 1818** **Password: 991927**

ABSTRACT

A suspended piezoelectric membrane fabricated through high temperature silicon migration is actuated by applying an alternating electric field at the finger electrodes of interdigitated transducers. Through the converse piezoelectric effect, a flexural deformation of the membrane supporting the electrodes is generated and converts into a traveling flexural Lamb wave. This membrane deformation, characterized by a relatively slow wave velocity, shows a high displacement amplitude of which is significantly higher than typical surface acoustic wave. The targeted application of this system is acoustofluidic actuation.

BIOGRAPHY

Philippe received his Bachelor of Engineering degree in engineering physics from Polytechnique Montréal, Canada, in 2018. He is currently pursuing a Ph.D. at the Department of Electrical and Computer Engineering of National University of Singapore under A*STAR Singapore International Graduate Award. His research interests include acoustofluidic actuators and sensors and MEMS based sensors.

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