

## SEMINAR ANNOUNCEMENT

### DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Faculty of Engineering

Website: <https://www.eng.nus.edu.sg/ece/>

**Area: Microwave & Radio Frequency**

**Host: Dr John S. Ho**

<b>TOPIC</b>	:	<b>Digitally-Embroidered Liquid Metal Wearable Wireless Systems</b>
<b>SPEAKER</b>	:	<b>Mr Sippanat Achavananthadith Graduate Student, ECE Dept, NUS</b>
<b>DATE</b>	:	<b>Friday, 23 April 2021</b>
<b>TIME</b>	:	<b>10.00AM to 11.00AM</b>
<b>WEBINAR</b>	:	<b>Join Zoom Meeting</b> <a href="https://nus-sg.zoom.us/j/88504106095?pwd=Y1FvZm4xdzZqVTBkb2RlciswekRDUT09">https://nus-sg.zoom.us/j/88504106095?pwd=Y1FvZm4xdzZqVTBkb2RlciswekRDUT09</a> <b>Meeting ID: 885 0410 6095</b> <b>Password: 827404</b>

### ABSTRACT

Electronic textiles represent an attractive platform for unobtrusive monitoring of health during daily life. Such textiles require wireless capabilities for data transmission, but conventional radio-frequency materials are limited by their rigidity, low conductivity, and incompatibility with textile manufacturing processes. In this talk, I will introduce a wearable wireless system fabricated by digital embroidery of liquid metal fibers. I will present designs that are compatible with near-field communication (NFC) standards, and discuss simulations and experiments that demonstrate the flexibility and durability of the systems under daily conditions.

### BIOGRAPHY

Mr Sippanat Achavananthadith is currently a Ph.D. student in the Electrical and Computer Engineering at National University of Singapore, supervised by Asst. Prof. John S.Y. Ho. His research interest focuses on the development of wearable battery-less platform for healthcare applications.

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