SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
FACULTY OF ENGINEERING
Website: https://cde.nus.edu.sg/ece

Area: Microelectronic Technologies & Devices

Host: Dr Xie Hang

TOPIC	**:**	**Magnetic Stray Field Mapping Of Stainless Steel Sheets Using Spin Hall Magnetoresistance Sensor**
SPEAKER	**:**	**Ms Lu Ling** **Graduate Student, ECE Dept, NUS**
DATE	**:**	**Friday, 7 January 2022**
TIME	**:**	**3.00PM to 4.00PM**
WEBINAR	**:**	**Join Zoom Meeting** **https://nus-sg.zoom.us/j/83561824425?pwd=MnlpbUU0elMxd1ZmV05USjdaOGFUZz09** **Meeting ID: 835 6182 4425** **Passcode: 202915**

ABSTRACT

Stainless steels are useful in various industries. Understanding the stress and composition distribution in stainless steels is helpful to prevent its deterioration at early stage of usage. Stray field mapping is a straightforward approach to probe ferromagnetism resulted from stress or compositional inhomogeneity. This technique does not require intensive sample preparation nor expensive equipment. In this seminar, successful stray field mapping of SUS304 steel sheets using SMR sensor is presented with emphasis on lift-off effect. The simple yet sensitive SMR sensor is extremely suitable to map the weak stray field. The experimental results are verified by finite element modelling as well.

BIOGRAPHY

Ling Lu received her B. App. Sc. degree in 2015 from National University of Singapore. She has been working in WinTech-Nano Technology Services Pte Ltd as a failure analysis (FA) engineer since 2016. She is also pursuing the Ph. D degree at ECE of NUS. Her research focuses on study of spin-orbit torque and its applications.