IEEE (HK) Section
AP/MTT

Seminar On

MTT-S Distinguished Microwave Lecture:
Towards Industrial Coating Health Monitoring Using Microwave Planar Sensors
Prof. Mohammad Zarifi
University of British Columbia, Canada

Date : 7 May 2026 (Thursday)

Time : 10:00 am – 11:00 am (Hong Kong Time, GMT +08:00)

Venue : Online (Zoom Meeting)

Zoom Meeing : https://cityu.zoom.us/j/87805641479?pwd=xSgwFtXYhRbE6HUtdIGkbGGZahCvpC.1
Meeting ID: 878 0564 1479
Passcode: 741738

Abstract

Industrial coatings are critical for protecting components in harsh environments, yet their degradation is often difficult to monitor in real time. This talk presents a sensing approach based on microwave planar sensors integrated with or embedded within coatings to enable non-invasive, real-time coating health monitoring. Changes in coating properties such as thickness, permittivity, and integrity are tracked through shifts in the sensor's electromagnetic response. The approach offers a scalable, low-cost pathway toward smart coatings capable of early damage detection, predictive maintenance, and improved reliability in industrial systems.

Biography

Mohammad Zarifi (Fellow IEEE, Ph.D. PEng, PRC Tier II,), is currently an Associate Professor and Tier II Principal's Research Chair (PRC) in Sensors and Microelectronics at the School of Engineering at the University of British Columbia, and the director of Okanagan MicroElectronics and Gigahertz Applications laboratory (OMEGA Lab), Canada. Dr. Zarifi has authored or co-authored more than 150 papers in peer-reviewed journals and conference proceedings and holds six issued or pending patents. Dr. Zarifi's research focuses on Applied Electromagnetics and Circuits and Systems for Communications and Sensing Applications. Dr. Zarifi has served as the chair and a member of IEEE MTT-S TC-26 "RFID, Wireless Sensor, and IoT," as well as a member of IEEE MTT-S TC-4 "Microwave Passive Components and Transmission Line Structures". Additionally, Dr. Zarifi has served as a Reviewer and an Associate Editor for several journals and conferences such as IEEE Transactions on Microwave Theory and Technology, IEEE Sensors Journal, and IEEE Open Journal of Antennas and Propagation. Dr. Zarifi has received the Emerging Researcher Award and the Best Teaching Award at the School of Engineering in 2020 and 2021, respectively. He is an IEEE MTT-S Distinguished Microwave Lecturer for the class of 2024-2027.

***** ALL ARE WELCOME *****

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