



SEMINAR

Title: Central Fabrication Laboratory- Technical sharing session –Vibrational and Photoluminescence Spectroscopy of Advanced Materials: Insights into Structure and Properties

Date: 12 October, 2026 (Monday)
Time: 10:30am – 12:30pm
Venue: Room 7-35
Haking Wong Building, HKU

Speaker: Prof. Dr. Veinardi Suendo, S.Si., M.Eng.
Research Centre of Nanoscience and Nanotechnology
Institut Teknologi Bandung

Language: English

Limited seats available on a first-come first-served basis

Abstract:

The Central Fabrication Laboratory (CFL) is a cutting-edge cleanroom facility located at the University of Hong Kong. Its primary mission is to provide advanced fabrication facilities and expertise to enhance teaching and research activities in micro/nano fabrication. As a leading research laboratory, CFL offers open access not only to University of Hong Kong members but also to local and international institutions, researchers, and companies, with collaborations from the private sector always encouraged. The technical sharing sessions offered by CFL are designed to keep participants updated on the latest micro/nano fabrication techniques and provide valuable networking opportunities with experts from around the world.

Vibrational spectroscopy, encompassing Raman and Fourier-transform infrared (FT-IR) techniques, and photoluminescence (PL) spectroscopy provide complementary insights into the structure and properties of advanced materials. Raman and FT-IR probe vibrational modes associated with chemical bonding, molecular interactions, and local symmetry, while PL probes light emission from electronically excited states. Drawing on selected published studies, this seminar will illustrate how these techniques reveal structural characteristics and luminescence behavior in molecular and nanostructured materials. The discussion will connect Raman and FT-IR spectral features with changes in bonding and the

local chemical environment and examine how PL measurements provide insight into electronic states and relaxation processes.

Emphasis will be placed on interpreting experimental spectra in their physical and chemical context and combining the complementary information obtained from these techniques. Through research examples, the seminar will demonstrate how vibrational and PL spectroscopy help establish relationships between material structure and properties.

Biography:

Professor Veinardi Suendo is a professor in the Inorganic and Physical Chemistry Research Division, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung (ITB), Indonesia. He received his bachelor's degree from ITB in 1998, his master's degree from Tokyo Institute of Technology, Japan, in 2001, and his doctorate from École Polytechnique, France, in 2005.



His research spans molecular spectroscopy, nanostructured materials, conducting polymers, nanocrystalline semiconductors, membrane transport, and plasma-assisted material processing. He combines spectroscopic investigations with material synthesis and characterization to understand the relationships between molecular structure, interactions, and material functionality. His published work encompasses applications in solar cells, energy storage, catalysis, sensing, and membrane systems.

ALL INTERESTED ARE WELCOME

For further information, please contact Mr. YIP P.S. (3910 2637, psanyip@hku.hk) or Prof. Chan P.K.L. (3917 2634, pklc@hku.hk).