Department of
Mechanical Engineering
The University of Hong Kong

DEPARTMENT OF
MECHANICAL ENGINEER
THE UNIVERSITY OF HONG KO

SEMINAR

Title: Central Fabrication Laboratory- Technical sharing session – Material Deposition in Device Fabrication

Date: **9 Sep 2025 (Tuesday)**

Time: **1:00 - 2:00 PM**

Venue: **7-34, Haking Wong Building, HKU**

Speaker: **Mr. Li Yubao**

President, Semicontec Instrument Company LTD

Language: Mandarin

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.

In today's rapidly advancing technological landscape, the development and application of sophisticated micro and nano fabrication techniques have become increasingly vital for pushing the boundaries of science and engineering. These cutting-edge methods enable the precise creation of thin films and microstructures with remarkable accuracy and control, which are essential for a wide range of applications spanning electronics, biomedical devices, energy storage, and advanced materials research.

This seminar will focus specifically on three prominent deposition systems: Physical Vapor Deposition (PVD), Atomic Layer Deposition (ALD), and Chemical Vapor Deposition (CVD). Each of these techniques offers unique advantages and capabilities, making them indispensable tools in modern fabrication processes. We will explore the fundamental principles behind each system, discuss their operational mechanisms, and highlight recent advancements that have expanded their functionality and efficiency.

In addition to the technical overview, the seminar will feature a series of brief case studies illustrating notable applications of these deposition techniques in current research. These examples will showcase how PVD, ALD, and CVD are being utilized to develop innovative materials, improve device performance, and solve complex scientific challenges. Toward the conclusion of the session, we will synthesize these insights and discuss future trends and potential developments in micro/nano fabrication technologies, emphasizing their significance in advancing various fields of science and industry.

Biography:

Mr. Li Yubao serves as the President of SEMICONTEC INSTRUMENT COMPANY LIMITED (Yunliang Precision Instrument (Shanghai) Technology Co., LTD), bringing with him more than 15 years of expertise in Nano Fabrication Equipment, with a specialization in PVD systems.

ALL INTERESTED ARE WELCOME

For further information, please contact Mr. YIP P.S. (3910 2637, psanyip@hku.hk)

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