



Department of
Mechanical Engineering
The University of Hong Kong



SEMINAR

Title: Central Fabrication Laboratory- Technical sharing session – Stylus and optical profilometry and their typical application

Date: 10 October, 2025 (Friday)
Time: 11:45am - 12:45pm
Venue: Room 7-35, Haking Wong Building, HKU

Speaker: Dr. He Huang
Bruker(Beijing) Scientific and Technology Ltd.

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.

In this seminar, the principles of stylus and optical profilometry will be introduced firstly. Then the technology advances from stylus and optical profilers will be discussed. Nowadays, more and more advanced micro/nano fabrication methods are used for thin film, microstructures, herein, typical application examples measured by stylus or optical profilers will be elaborated. In the end, other typical application examples by optical profilers in academia research will also be shown quickly.

Bruker : Bruker is the industry-leading provider of 3D surface measurement and inspection solutions, offering systems for fast, reliable, and easy-to-use non-contact analyses with best-in-class accuracy on samples ranging in size from microscopic MEMS to entire

engine blocks. They provide researchers and engineers in R&D, manufacturing, and quality control the industry-leading sensitivity and stability necessary for precision 3D surface measurements in applications and environments that are challenging for other metrology systems.

Based on ten generations of proprietary Wyko® white light interferometry (WLI) technology and Bruker advances, their optical profiling metrology systems have a proven record of supporting leading-edge R&D, QA, and QC in labs and production environments around the world.

Biography:



Dr. He Huang is the application manager for Bruker China. He has 20+ years' experience serving the process and metrology capital equipment market, specifically in semiconductor and surface engineering. He holds the Ph. D majored in Materials Science, Xi'an Jiaotong University. He has been worked as research assistance, process support engineer, application scientist and application manager with Hongkong Polytech University, Applied Materials, Veeco Instruments and Bruker.

ALL INTERESTED ARE WELCOME

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