Introduction

This course aims to introduce advanced surface metrological concepts, practical knowledge and instrumental design in surface topography measurement. It covers:

- Definition of Surface texture & topography — Surface Metrology
- Contact & Non-contact Methods in Surface Metrology
- Traceability & Calibration in Surface Metrology
- Related Instrument Demonstration

Course Leader

Dr Wang Shihua is a Senior Metrologist in NMC/A*STAR. He has many years of experience in the area of length and dimensional measurement covering micro-scale and nano-scale range. Prior to joining NMC in 2005, he worked as a research fellow in the Department of Mechanical and Production Engineering, National University of Singapore, a lecturer and associate professor in Sichuan University, China. His R&D interests include measurement of surface topography, development of contact and non-contact methods in surface metrology and related instrumentation design. He has authored or co-authored about 70 journals and conference publications.

Course Contents

- Introduction to Surface Metrology
  - Definition of surface texture/topography
  - Contact Methods: Stylus profilometer; Atomic Force Microscopy
  - Non-contact Methods: Laser scattering, Optical triangulation; Optical confocal microscopy; Optical interference microscopy

- Metrological instrumentation issues in surface metrology
  - Configuration of system
  - Traceability in surface metrology
  - Primary calibration standards
  - Secondary Calibration Standards

- Demonstration of some surface metrology equipment
  - Showcase of Stylus profilers, Laser confocal microscope, Interferometric microscope
  - Discussions with participants on their measurement issues

For Whom

Test engineers, Calibration engineers, Surface metrology equipment suppliers, Quality assurance and quality control personnel, Process control engineers

Course Registration

Fee $390.00 + GST

Surface Topography Measurement Techniques, 12 Oct 2017

Please fax filled-in form to 62791992, or e-mail to shirley_tng@nmc.a-star.edu.sg to register.

For more details on MAP and upcoming events, visit: www.a-star.edu.sg/nmc/map.htm

Measurement Assurance Program (MAP)

National Metrology Centre (NMC) launched MAP in December 2012 with the aim to enhance the measurement capability and confidence of calibration and testing laboratories. It provides:

- Proficiency Tests (PT) to verify laboratory’s competency and measurement accuracy,
- Measurement Assurance Seminars, and
- Training and consultancy to upgrade the industry’s skills in measurements.

For more details on MAP and upcoming events, visit: www.a-star.edu.sg/nmc/map.htm

Contact Us

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Acceptance of registration is based on first-come-first-served basis. Payment is to be made by crossed cheque to “SCEI-NMC”, by credit card or by NETS. 50% is refundable for withdrawals in writing at least five days before the commencement of the course. NMC reserves the right to cancel or postpone the course. In the event of cancellation, registration fees will be fully refunded.