Introduction

This course aims to introduce basic metrological concepts and practical knowledge underwater acoustics area. It covers:

- Underwater acoustic measurement principles
- Measurement instrument & selection
- Traceability & calibration
- Measurement uncertainty analysis
- Interpretation of a calibration report

Course Leader

Dr David Khoo, graduated from University of Nottingham, is a Scientist in Acoustics & Vibration Laboratory, NMC. He is also a SAC-SINGLAS technical assessor in the area of acoustic and vibration calibrations. Since 2016, he has been working with the team to establish new metrological standards and upgrade existing standards related to acoustic and vibration measurements. His current research interests include Agritech, Pipeline Leakage Detection, Sensor and IoT Technologies.

Course Contents

Principles of underwater acoustic measurements
- Basic concepts and quantities of underwater acoustic measurements
- Basic instrumentation, traceability and uncertainty for underwater acoustic measurements.

Calibration setup and procedures
- Traceability
  - Primary calibration standards
  - Secondary calibration standards
- Hydrophone calibration
- Measurement uncertainty evaluation
- Interpretation of a hydrophone calibration report
- Discussions with participants

For Whom

Technicians, engineers, calibration officers, consultants, researchers and instrument users involved in underwater acoustic measurement that needs precise and accurate metrology information to ensure the highest quality measurement results.

Online-Course Registration

- Fee $450.00+GST (registration close 2 week before the course date)
- Underwater Acoustics - Measurement and Applications
  - 10 Nov 2020, 9:00 am – 5:00 pm,
- Please fax filled-in form to 62791992, or e-mail to shirley_tng@nmc.a-star.edu.sg to register.

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<th>Name of Participant</th>
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Company: ________________________________ E-mail: ________________________________

Address: __________________________________________

Signature/Co Stamp: ___________________________ Date: _____________________________

Acceptance of registration is based on first-come-first-served basis. Payment is to be made by crossed cheque to "SCEI-NMC", by telegraphic transfer, by credit card or by NETS. 50% is refundable for withdrawals in writing at least 10 working 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.

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: https://www.a-star.edu.sg/nmc/services/Training-Consultancy/online-map-courses

Contact Us

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