







HEAT ENCLOSURE CALIBRATION (Competency Training)

PROGRAMME OVERVIEW:

This calibration training module is designed based on EURAMET cg-20 to meet ISO quality management system requirement include ISO 9001, ISO14001, ISO/IATF 16949, ISO 22000, ISO/IEC 17025, GMP, HACCP and other quality management systems. This module includes the evaluation of measurement uncertainty base on ISO Guide to the expression of uncertainty in measurement (GUM).

TARGET GROUP:

Quality Managers, Technical Managers, Laboratory Managers, Supervisors, Chemist, Engineer, Signatories of test reports & certificates, Laboratories Personnel.

OBJECTIVE:

At the end of the course, participants are expected to:

- 1) Understand temperature characteristics of an enclosure (space inside the oven), spatial variation and temporal variation.
- 2) Able to install sensors in order to extract the appropriate information.
- 3) Perform calibration independently
- 4) Perform necessary calculations include uncertainty estimation based on ISO Guide [according to the model given only]
- 5) Able to generate ISO quality management system accepted calibration report

CONTENT:

- 1) Principle of metrology and ISO requirement on calibration.
- 2) Understand the equipment and Correct method of handling.
 - a) Temperature recorder.
 - b) Thermocouple sensor
 - c) Oven, incubator, furnace, water bath
- 3) Care and Maintenance
 - a) Precautions
 - b) Pre Calibration Inspection
 - c) Environment
- 4) Calibration
 - a) Step by step procedure based on EURAMET cg-20
 - b) Step by step installation of sensors and data collection.
 - c) Practice of at least 2 models, step-by-step guiding on calibration procedure
- 5) Estimate uncertainty of test base on ISO Guide
- 6) Uncertainty calculation and presenting calibration result.
- 7) Form and formulae
- 8) Work example

METHODOLOGY:

Lectures, discussion, demonstration, hands-on practice and practical exercises

CERTIFICATE:

Candidate is required to complete an assessment either on day 2 or within 2 weeks after the training is conducted.

- ✓ Certificate of competency achieves score point 70% and above
- ✓ Certificate of attendance achieves score point below 70% or no submission of assessment

REMARK:

- 1) Candidate is advisable to bring tumb drive or notebook.
- 2) Candidate need to bring along their scientific calculator for assessment
- Candidate is required to complete the assessment during training or must submitting the completed assessment within 2 weeks after the training is completed.
- 4) Certificate will be issued based on score point in the assessment.
- 5) The original marked assessment paper will return to customer together with certificate.
- 6) Candidate with poor score is advisable to re-seat for training and assessment.

CONTACT US FOR MORE DETAILS

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- ♦ In-House Training
- ♦ Customade training
- ♦ HRDF SBL Scheme claimable for private sector
- ♦ e-Perolehan applicable for government sector
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