



Guide to Expression of Uncertainty in Measurement to ISO/IEC 17025:2017 (ISO/IEC 98-3:2008 & JCGM 100:2008)

27 to 28 October 2025 (2-day)

Organized by

**Hong Kong Association for
Testing, Inspection and Certification Ltd.**

(Delivered by Ex-HOKLAS Senior Officer)

This two-day course provides training for estimation of measurement uncertainty to participants who work in ISO/IEC 17025 accredited testing laboratories.

Objective

This two-day course focuses on the different aspects of measurement uncertainty mainly for physical measurements. It provides participants fundamental knowledge and guidelines on what is measurement uncertainty, statistics involved and how the uncertainty can be estimated under different testing conditions. On completion of the course, participants shall have adequate knowledge to build up the uncertainty model and evaluate the measurement uncertainty of the tests.

Outline

A. Basic statistics and application

- Population
- Different types of distributions and related standard deviation
- Experimental standard deviation of the mean
- Student-t test
- Confidence interval
- Applications

B. APLAC guidelines for estimation of measurement uncertainty

- Requirements of ISO/IEC 17025
- Approaches for different disciplines

C. Measurement uncertainty based on ISO GUM

- Definitions
- Advantages
- Steps in evaluation of measurement uncertainty

D. Sources of uncertainty

- Measurement process
- Environment
- Operator
- Equipment

E. Step by step evaluation

- Model
- Standard uncertainty
- Sensitivity coefficient
- Combined uncertainty
- Degree of freedom, effective degree of freedom
- Expanded uncertainty

F. Other consideration

- Higher order
- Correlation
- Monte Carlo Method

G. Reporting measurement uncertainty and compliance against specification

- APLAC guidelines
- ILAC guidelines
- CNAS guidelines

H. Examples and workshops on

- Calibration
- Physical and electrical measurements

Who Should Attend

This course is designed for all laboratory staff who are actively involved in quality aspects of the laboratory, including managers, supervisors, approved signatories, authorized representatives, etc.

Date

27 to 28 October 2025 (2-day)

Time

9:30am to 5:00pm

Venue

Near MTR station;

To be announced 1 week before the training via email

Instructors

Ir C.K. Cheung, *BSc(1st Class Honours), MSc(Imperial College), DIC, MEng(HKU), MHKIE, Registered Professional Engineer Previously Senior Engineer in CEDD and Senior Accreditation Officer in HKAS HKICA Founding President ANAB, IAS, GAC & HKAS Assessor APAC Lead Evaluator, IAF-ILAC Evaluator*

No. of Participants

First-come-first-served basis (Priority will be given to members.)

Language

Chinese (with English course material)

Registration

1. Email the complete the registration form to info@hktic.org
2. Prepare a crossed cheque payable to "Hong Kong Association for Testing, Inspection and Certification Ltd." for the fee.
3. Post the completed registration form and signed cheque to the following address:

HKTIC Secretariat
1/F., CMA Building,
64-66 Connaught Road Central,
Hong Kong

Fee

HK\$ 4,000 for HKTIC members
HK\$ 4,800 for non-members

This fee covers course notes. Refreshment will NOT be provided. (Fees will be refunded for unsuccessful registration or course cancellation).

Deadline

13 October 2025 (Monday)

Assessment

There will be an assessment in the form of a written examination at the end of each module. Those that pass the exam will receive a '**Certificate of Achievement**' from HKTIC. Others will receive a '**Certificate of Completion**'.

Enquiry

Email: info@hktic.org
Tel.: 3652 7515

HKTIC Organized

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in Measurement to ISO/IEC 17025:2017
(ISO/IEC 98-3:2008 & JCGM 100:2008)

Registration Form

Participants: Suitable for Managers, Supervisors, Approved Signatories,
Authorized Representatives, Auditors

Course Content: Please refer to the detail course outline

Date and Time: **27 to 28 October 2025**, 9:30am – 5:00pm

Venue: Near MTR station; to be announced 1 week before the training via email

Participant: Dr. / Ir. / Mr. / Mrs. / Ms. / Miss _____
***Name to be shown on the certificate** **Full name in block letters, surname first**

Organization: _____

Position / Job Title: _____

Mobile No. / Phone: _____
Participant **Admin., HR, etc., if applicable**

Email: _____
Participant **Admin., HR, etc., if applicable**

Fee (HK\$): Please tick one HKTIC member \$4,000 ☐ Others \$4,800 ☐

Certificate (HK\$): Please tick one Physical certificate \$10 ☐ E-certificate free ☐

* CTT / CTP members could enjoy a \$200 discount.*

Payment: _____
 Cheque No. Bank Amount

Receipt Recipient: Please tick one Organization ☐ Participant ☐

Mailing address: _____
(For receiving the certificate and receipt)

☐ I/We do not agree with the use and provision of my/our personal data for receiving any promotional materials from Hong Kong Association for Testing, Inspection and Certification Ltd and/or its service providers .

For registration, please

- 1) email the completed registration form to info@hktic.org;
- 2) prepare a signed crossed cheque payable to "Hong Kong Association for Testing, Inspection and Certification Ltd."; and
- 3) post the completed registration form and signed crossed cheque on or before 11 August 2025 to HKTIC Secretariat, 1/F., CMA Building, 64-66 Connaught Road Central, Hong Kong.

For enquiry, please contact HKTIC Secretariat

Email: info@hktic.org

Tel.: (852) 3652 7515