



# **The ISO Guide to the Expression of Uncertainty in Measurement (GUM)**

26 – 28 April 2010

Organized by

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

Website: [www.hktic.org](http://www.hktic.org)

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This three-day course provides training for estimation of measurement uncertainty to participants who work in testing laboratories.

## Objective

This three-day course focuses on the different aspects of measurement uncertainty based on the ISO/IEC Guide 98-3:2008. 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.

## Feature

This course consists of the following:

- Need of measurement of uncertainty
- APLAC Guidelines on measurement of uncertainty
- Basic statistics
- Overview of ISO GUM
- Compliance decision
- Other approaches
  - UKAS LAB 34 for EMC
  - ASTM D2904-97 for textile and garment tests
- Hybrid approach
- Exercises
- Workshops
- References and development

The course is designed and delivered by professional analytical chemist who was also an ex-HOKLAS Accreditation Officer responsible for both chemical and physical tests. She has more than twenty-five years experience in chemical analysis in Government Laboratory. She was the co-chairman of the APLAC Technical Committee for preparation of the APLAC guidelines on the estimation of measurement uncertainty.

### 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. The course may also be of interest to students planning to pursue professional career in a testing laboratory.

### Date

Monday to Wednesday  
26 – 28 April 2010  
(3 days)

### Time

9:30am to 5:00pm

### Venue

Gabuji Laboratory Technical Services Ltd.,  
Room 1503-05, Westin Centre,  
26 Hung To Road,  
Kwun Tong, Kowloon.

### Instructors

Ms. Sandra Ho  
*HOKLAS Lead and Technical Assessor  
Previously Chemist in Govt. Laboratory  
and Accreditation Officer in HOKLAS*

### No. of Participants

23 persons on a first-come-first-served basis (Priority will be given to members).

## Registration

1. Complete the registration form
2. Prepare a crossed cheque payable to "Hong Kong Association for Testing, Inspection and Certification Ltd." for the fee
3. Send the completed registration form and signed cheque to the following address:

Hong Kong Association for Testing,  
Inspection and Certification Ltd.  
1/F., C.M.A. Building,  
64 – 66 Connaught Road,  
Central, Hong Kong.

## Fee

HK\$ 4,200 for HKTIC members  
HK\$ 4,350 for non-members

This fee covers course notes, handouts, and daily complimentary lunches. Refreshments will be available during the course.

Fees will be refunded for unsuccessful registration or course cancellation.

## Deadline

Wednesday, 21 April 2010

## 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

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Fax: 2541 8154

HKTIC Organized

**The ISO Guide to the Expression of Uncertainty in Measurement (GUM)**

Registration Form

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

Course Content: Please see the attached outline

Date: Monday to Wednesday, 26 – 28 April 2010

Time: 9:30am – 5:00pm

Venue: Gabuji Laboratory Technical Services Ltd., Room 1503-05, Westin Centre, 26 Hung  
To Road, Kwun Tong, Kowloon.

No. of Participants: 23 persons per module on a first-come-first-served basis (Priority will be given to  
HKTIC member).

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

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Membership:  HKTIC member  Non-member  Student (Please tick as appropriate)

Address: \_\_\_\_\_  
\_\_\_\_\_

Contact No.: \_\_\_\_\_  
Telephone Fax e-mail

Email: \_\_\_\_\_

Sum (HK\$): \_\_\_\_\_

Payment: \_\_\_\_\_  
Cheque No. Amount Bank

Receipt Recipient:  Not Required  Organization  Participant  
(Please tick one)

Note: Students may be required to provide proof of their student status.

Please send a signed crossed cheque payable to "Hong Kong Association for Testing, Inspection and Certification Ltd." for the fee and the completed registration form(s) on or before 21 April 2010 to the following address:

Hong Kong Association for Testing, Inspection and Certification Ltd.  
1/F., C.M.A. Building,  
64 – 66 Connaught Road,  
Central, Hong Kong.  
Tel.: Ms. Blondi Cheung 2542 8664