Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, GachiBowli, Hyderabad – 500 032, T.S, India

Quality & Productivity Division

Workshop on

UNCERTAINTY MEASUREMENT

09 – 10 December 2019

(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

INTRODUCTION

Measurements are always made for a purpose – may be to answer a specific question or to help solve a problem. Whenever a measurement is made there will always be some uncertainty about the result due to unavoidable errors in the measurement process. The validity of absolute measurements made have little meaning unless the uncertainty of the test or calibration process is known. Many standards, including ISO/IEC 17025 and ISO/TS 16949, require that the uncertainty of measurement be taken into account when performing test and calibration activities.

Knowledge of the uncertainty associated with measurement results allows a judgment to be made as to whether the data are likely to be 'fit for purpose'. If comparisons of results are being made, The evaluation of the uncertainty associated with measurement results is a requirement for testing laboratories accredited to ISO/IEC 17025.

OBJECTIVE

This two-day workshop will acquaint delegates with the requirements of ISO/IEC 17025, particularly the salient principles in The Expression of Uncertainty in Measurement, which defines methodologies to calculate uncertainty budgets, as well as covering the basic statistics required.

This course provides a practical approach to evaluating uncertainty in testing laboratories which is in line with the ISO principles for uncertainty estimation and current accreditation requirements. The course assumes no prior knowledge of uncertainty evaluation.

COURSE CONTENT

- Introduction to the concept of measurement uncertainty and the importance of uncertainty of measurement
- Basic concepts: traceability, uncertainty and terminology
- Statistics for measurement uncertainty estimation
- Impact of uncertainty on results and compliance with specifications
- Type A uncertainties and selection of statistical tools
- Type B uncertainties, identification and use
- Combined uncertainties
- Expanded uncertainties and confidence intervals
- Reporting of uncertainties
- Worked examples

METHODOLOGY

The programme will be conducted in an interactive environment providing greater scope for discussions. Emphasis will be on a highly participative style of learning through Lectures, Group discussions, Case Studies and hands-on exercises.

TARGET PARTICIPANTS

- Laboratory and Technical Personnel
- Assessors of Laboratory / Quality Management Systems
- Assessors of calibration and testing laboratories
- Quality and Technical Managers
- Quality and Design Engineers & Others

Although not essential, personnel attending this course should have a basic knowledge of maths and statistical.

CERTIFICATE

The participants will be awarded a certificate by ESCI on successful completion of the course.

FACULTY

Specialists with extensive experience in ISO 17025: 2017 auditing will share the sessions.

COURSE DIRECTOR

Head - Quality & Productivity Division, Engineering Staff College of India.

PROGRAMME SCHEDULE

VENUE: Engineering Staff College of India (ESCI) Campus, Old Bombay Road, GachiBowli, Hyderabad - 500 032.Telangana State, India.

DURATION:
09 – 10 December 2019 (2 Days)

Timings: On the first day Registration will commence at 0900 hrs. On all other days the program timings will be from 0945-1715 hrs with breaks in between for tea & lunch.

COURSE FEE

Rs.10,000/-(Residential) + 18% GST per participant. Fee includes course material, course kit, and twin-sharing/single AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

GSTIN: **36AAATT3439Q1ZV**

PAN Card No. AAATT3439Q.

MODE OF PAYMENT

Program fee is to be paid in favour of **"IE(I)-Engineering Staff College of India"** in the form of demand draft payable at Hyderabad.

Alternatively the payment may be made by Electronic Fund Transfer (EFT) to ESCI – **SB A/c No. 912010049234564** with **Axis Bank Ltd., Gachibowli branch,** Old Mumbai Highway, Cyberhills Colony, P Janardhan Reddy Nagar, Gachibowli, Hyderabad – 500032, T.S., by NEFT/ RTGS/ IFSC Code No. UTIB0000733 – MICR No.500211020.

While using EFT method of payment, please ensure to communicate us your company name, our invoice reference and program title.

REGISTRATION

Online registration shall be available on ESCI website.
To register manually please send your nominations giving details of name, designation, contact address, email address, mobiles no, telephone and fax number of the participant along with the details of mode of payment of fee and addressed to:

The Head
Quality & Productivity Division
Engineering Staff College of India
GachiBowli, **HYDERABAD – 500032**
Direct Phones : 040 – 66304110, 4109, 4108, 4132, 4133
Fax : 040 – 30995226
Email: qp@escihyd.org / Website: www.escihyd.org

GENERAL INFORMATION

- ESCI encourages participants to present case studies from their respective organizations.

- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in at 1200 hrs.) and one day after conclusion (Check-out at 1200 hrs.) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation)

- Well developed Information Centre and Internet facilities are available to the participants.