

MSP-HRDF-O05

Training Course for Understanding Measurement Uncertainty: A Comprehensive Guide

Training Programme No:

Duration: 1 Day (7 hour)

Time: 9.00am - 5.00pm

Maximum pax per course: 5 pax

Location: In-house (Customer-site)

Trainer : Yek Kim Yoong

Objective

The course draws from internationally accepted documents, placing a strong emphasis on comprehending and applying concepts tailored to local industries. We eliminate unnecessary mathematical complexities and provide clear definitions and explanations of technical terms in simple terms

Target audience

For individuals interested in joining the manufacturing industry, acquiring a profound understanding of task execution with calibration systems, and delving into the study of measurement uncertainty.

Course Outline

Part 1: Introduction to Measurement Uncertainty

- Reference standard: ISO Guide to the Expression of Uncertainty in Measurement
- Understanding the requirements of ISO/IEC 17025
- Basic Mathematical Concepts of Measurement Uncertainty and Evaluating Standard Uncertainty
 - Partial Differentiation
 - Table of Student T distribution
 - Basic Concepts of Statistics for Metrologists
 - The Steps to Evaluate Uncertainty
 - Sources of Uncertainty
 - Model of Measurement Uncertainty
 - Determining Standard Deviation (Std Uncertainty)

- Determining Combined Standard Uncertainty
- Determining Effective Degrees of Freedom
- Determining Expanded Uncertainty

Part 2: Relationship between Instrument Tolerance, Specification, Error, and Measurement Uncertainty

- Examples of Fundamental Calculation of Measurement Uncertainty

Part 3

- Question and Answer Session
- Workshop/Review of the Current Calibration System if Required
- End

This revised version aims to enhance clarity and organization in your course outline.

RM 5000 / day

** Additional Transport & Accommodation charges will apply if the training out of JB territory