MEASUREMENT & CALIBRATION (DIMENSIONAL)

Calibration is a verification process on the accuracy of measuring equipment by given reference standards. The reference standard is a device with the measurements is known or assigned correctness. The measuring equipment is the unit under test, test instrument, or any of several other names for the device being calibrated. Two metrological concepts with direct linkage to calibration are the measurement traceability and measurement uncertainty.

Measurement results are considered valid only if they are linked to establishing national or international measurement standards, and this linkage is called the measurement traceability, which is to ensure the results is valid.

LEARNING OBJECTIVE

After seriously committed to this course, the trainee should be able to do the following:

- Get to know the National and International organization of metrology.
- Understand the principle concepts on measurement and calibration.
- Know types of metrology and it application.
- Know type of measurement errors and precaution about these errors.
- Understand Measurement traceability from product of measurements to SI Base units.
- Realize measurement uncertainty that is mandatory requirement in calibration for accredited lab.
- Follow evaluation of measurement uncertainty and the basic calculation of measurement uncertainty.
- Interpret contain of the measurement results and calibration certificates.
- Justified the proper way of selection, calibration, check and care of measuring devices.
- Know basic technical skills in handling sampling procedure for attribute and variable that is followed ANSI/ASQ Standards.
- Understand usage of calibration certificates and the function of accreditation laboratories.
- Understand the basic concepts of geometric dimensioning and tolerancing.

TARGETED INDUSTRIES

Calibration Laboratories, Institutions and the industries involve in calibration or measurements.

TARGETED INDUSTRIES

Calibration Laboratories, Institutions and the industries involve in calibration or measurements.

TARGET GROUP

Any individual responsible for outsource of calibration services and receiving calibration certificate, maintaining quality, calibration lab, or anyone supporting the functions of measurement and calibration. This can include managers, technicians, engineers, inspectors, operators, and administrative support personnel. It can serve as a refresher for experienced technicians; or it can be used in orientation for new hires.

METHODOLOGY& LANGUAGE USE

Training slides, Review Questions, Exercises, Case Study and Q&A, Instruments demo.Test Before &After Training.

Training Manual – English

Course deliver language – Can be mix of English, Bahasa Malaysia and Chinese

COURSE OUTLINE

- Introduction to Metrology
- Introduction to Calibration
- Review of Basic Statistical Concepts
- Measurement Traceability
- Measurement Uncertainty
- Calibration Certificates and Accreditation Laboratory
- Measurement Awareness
- Fundamentals of Calibration and Testing