

TEMPERATURE METROLOGY – Part 1

Aim of Course

To introduce anyone who has a need to understand or have a formal background in temperature metrology, the science of measurement of temperature. Besides providing a theoretical foundation in the following fields, those attending can expect to gain a practical and useful knowledge of how the various instruments are used in industrial applications. Applications covered include;

- Resistance Thermometry
- Thermocouple Thermometry
- Liquid in glass Thermometry

Pre-Requisites for attending this course

- Measurement System (Part 1 & 2)
- Uncertainty of Measurement – Physical Measurements

Course Overview

Calibration of a Liquid in Glass Thermometer

ELC Corrections

Calibration of Digital Thermometer or thermometry system including probe and readout device

Use of TC tables and CJC calculations

TC Calibration (Base Metal) Accuracy > 1°C

RTD's, PT100, Thermistors, Semiconductors, etc. Calibration, 2 / 3 / 4 wire systems, Accuracy > 0,1°C

Electrical Simulation TC & RTD Calibration devices

Practical CJC Calculations

Estimation of Measurement Uncertainty for above measurements;

Who should attend

A course for the training of meteorologists, testing laboratories personnel and technical people who are interested in accurate temperature measuring principles.

Course Duration

5 Days

Evaluation

Daily tests and the passing of a final examination are required in order to successfully complete this course