

# **Measurement Systems**

## **Part 1 – An Introduction**

## **Part 2 – Method/Procedure and Report Writing (Calibration)**

### **Aim of Course**

The course is broken into two parts. The first deals with the Measurement System and the second with Method/Procedure and Report Writing. Part two is vital for all those involved in the Calibration field, but can be considered optional for those only seeking a background and introduction to measurement in general.

The main purpose of “Measurement Systems – an introduction” is to increase the awareness of measurement and to establish a common frame of reference in Southern Africa. It is meant to supply the Southern African users of measurement with a transparent and handy tool to obtain information.

The content of the course is a description of scientific, industrial and legal metrology in Southern Africa. The South African metrological structure with the 11 subject fields of metrology and metrological units are described, as well as the Southern African and International organisations which form the international metrological infrastructure. A list of metrological terms is collected primarily from internationally recognised standards. References are given to institutions, organizations and laboratories where attendees can obtain further information if required.

### **Course Overview**

#### **Part 1**

Acronyms, Vocabulary

Introduction to Industrial and scientific metrology

Traceability and calibration

The Metre Convention

International organizations

Legal metrology

National organizations

Metrological units

Choosing an accredited source of traceability

Uncertainty of measurement

#### **Part 2**

Working guidelines for the writing of test and calibration methods, and their validation

Test reports and calibration certificates

### **Who should attend**

Calibration and Physical Testing Technicians (Part 1 & 2). Quality Personnel (Part1), Analysts (Part 1)

### **Course Duration**

Part 1: 2 Days

Part 2: 1 Day

### **Evaluation**

Currently there is no formal evaluation of either Part 1 or Part 2. This is however, likely to change in the future