

Basics of Electrical Metrology and Measurements

Course Objectives

To provide enhanced understanding of the fundamentals and concepts that relate to metrology and calibration requirements, as well as the skills and techniques required for calibration, measurement theory, performing.

accurate electrical and electronic measurements and interpreting the technical specifications and calibration reports. In addition, the calculation of measurement uncertainty is demonstrated with practical examples.

Course Content

The course consists of the following topics:

- What is metrology?
- Introduction to the South African Technical Infrastructure
- What is calibration, calibration interval, traceability and verification?
- Electrical laboratory standards
- Direct and Substitution Methods
- Estimation of uncertainty of measurement
- Technical Specification Interpretation
- Quality Assurance of the results
- Interlaboratory comparison
- Accreditation Schedule
- Introduction to the Regional Metrology Organization, AFRIMETS

Course Date

12 – 14 March 2024

Duration

3 days

Cost

R6 350

Who should attend?

The course is ideal for junior electricians, engineers, laboratory managers, instrumentation & process control technicians, metrologists, testing laboratory and quality assurance personnel whose work relates to the usage of measurements and calibrations or within the field of quality assurance. Any person who is required to estimate the uncertainty of measurement budgets and, process and report the calibration results.

Course Information

NMISA's courses are developed and presented by experts in the field. The course is offered onsite at NMISA.

