

## **Radio Frequency Metrology**

### **Aim of Course**

To provide Radio Frequency Calibration technicians and metrologists with sufficient theoretical and practical skills, coupled with appropriate knowledge in order to perform measurements and calibrations in an RF Laboratory. This course requires that attendees have a through background in basic electrical measurements and it is expected that their grounding in Mathematics is at least one year beyond Grade 12. Whilst the course does provide some RF Theory many of the concepts require a prior understanding in order to maximize the attendance of the course.

### **Pre-Requisites for attending this course**

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

### **Course Overview**

Introduction to RF theory

Complex numbers, the decibel, wavelength, transmission line parameters, reflection figures, 'S' parameters

RF impedance

Basic theory, measuring equipment and techniques

RF power

Fundamentals, power measuring equipment, measuring and calibration techniques

RF attenuation

Basic definition and equations related to attenuation, types of attenuators, attenuation measurement techniques

Uncertainty of measurement in all types of RF Measurements

### **Who should attend**

RF Calibration Technicians and Metrologists

### **Course Duration**

5 Days

### **Evaluation**

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