HRODC Postgraduate Training Institute

A Postgraduate-Only Institution

109

Modern Electrical and Electronic Measuring Instruments

Course or Seminar

Leading To:

DIPLOMA – POSTGRADUATE IN

Modern Electrical and Electronic Measuring Instruments (Double Credit)

Accumulating to

POSTGRADUATE DIPLOMA

Progressing To A Masters Degree –

MBA – MSc - MA

Course Coordinator:
Prof. Dr. R. B. Crawford – Director of HRODC Ltd. and Director of HRODC Postgraduate Training Institute, A Postgraduate-Only Institution. He has the following Qualifications and Affiliations:

- Doctor of Philosophy {(PhD) (University of London)};
- MEd. Management (University of Bath);
- Advanced Dip. Science Teacher Ed. (University of Bristol);
- Postgraduate Certificate in Information Systems (University of West London, formerly Thames Valley University);
- Diploma in Doctoral Research Supervision, (University of Wolverhampton);
- Teaching Certificate;
- Fellow of the Institute of Management Specialists;
- Human Resources Specialist, of the Institute of Management Specialists;
- Member of Academy of Management (MAoM), within the following Management Disciplines:
  - Human Resources;
  - Organization and Management Theory;
  - Organization Development and Change;
  - Research Methods;
  - Conflict Management;
  - Organizational Behavior;
  - Management Consulting;
  - Gender & Diversity in Organizations; and
  - Critical Management Studies.
- Member of the Asian Academy of Management (MAAM);
- Member of the International Society of Gesture Studies (MISGS);
- Member of the Standing Council for Organisational Symbolism (MSCOS);
- Life Member of Malaysian Institute of Human Resource Management (LMIHRM);
- Member of ResearchGate Community;
- Member of Convocation, University of London;
- Professor HRODC Postgraduate Training Institute.

Prof. Crawford was an Academic at:

- University of London (UK);

- London South Bank University (UK);
- University of Greenwich (UK); and
- University of Wolverhampton (UK).

For Whom This Course is Designed
This Course is Designed For:

- Electricians;
- Mechanics;
- Electronic Technicians;
- Machine Operators;
- Control Technicians;
- HVAC Technicians;
- Instrumentation Technicians;
- Plant Managers and Supervisors;
- Calibrators;
- Civil Engineers;
- Mechanical Engineers;
- Electrical Engineers;
- Civil Engineers;
- Measurement Specialists;
- Enforcement Officers;
- Metrology Practitioners;
- All those interested in Metrology and Metrology Issues.

Duration:10 Days

Cost:£10,000.00Per Delegate

Please Note:

- V.A.T. (Government Tax) does not apply to Corporate Sponsored Individuals, taking Programmes or Courses in any location - within or outside the UK.
- It applies only to Individuals and Corporations based in the UK and to Non-UK Individual Residents taking courses in the UK.

Cost includes:

- Free Continuous snacks throughout the Event Days;
- Free Hot Lunch on Event Days;
- Free City Tour;

- Free Stationery;
- Free On-site Internet Access;
- Diploma – Postgraduate –in **Modern Electrical and Electronic Measuring Instruments (Double Credit)**; or
- Certificate of Attendance and Participation – if unsuccessful on resit.

HRODC Postgraduate Training Institute's Complimentary Products include:

1. HRODC Postgraduate Training Institute's **Leather Conference Folder**;
2. HRODC Postgraduate Training Institute's **Leather Conference Ring Binder/ Writing Pad;**
3. HRODC Postgraduate Training Institute's **Key Ring/ Chain**;
4. HRODC Postgraduate Training Institute's **Leather Conference (Computer – Phone) Bag** – Black or Brown;
5. HRODC Postgraduate Training Institute's **8GB USB Flash Memory Drive**, with Course Material;
6. HRODC Postgraduate Training Institute's**Metal Pen;**
7. HRODC Postgraduate Training Institute's **Polo Shirt**.

Please see product images, as a separate file - Complimentary Products For Students and Delegates, from HRODC Postgraduate Training Institute.

Daily Schedule:9:30 to 4:30 pm.

Location: Central London and International Locations

Modern Fundamentals of Electrical and Electronic Measuring Instruments
Leading to Diploma-Postgraduate in Modern Electrical and Electronic Measuring Instruments (Double Credit)

Course Contents, Concepts and Issues

Part 1: General Theoretical Explorations

- Introduction to Process Control:
  - What types of measurements can you take?;
  - What does it mean?;
  - How is the information used?.
- Electrical Measurement Standard:

- SI Units;
- PRIMARY Standards;
- Secondary Standards;
- Working Standards.

- Uncertainty of Measurements:
  - Fundamental Concepts;
  - Recommendations of ISO Guide;
  - Examples of Uncertainty Calibrations;
  - Other relevant Issues Associated with Metrology.
- Circuit Theory & Networks:
  - Electrical & Electronic Measurement;
  - Materials Science
  - Mathematics

Part 2: Sonar, Acoustic and Seismic Measurements

- Linear measurement Instruments;
- Acoustic measurement Instrument;
- 3D Seismic Surveys;
- 4D Seismic Mapping.

Part 3: Linear Position and Measurements

- Linear position transducers;
- Inductive Distance Sensors;
- Photoelectric Distance Sensors;
- Magneto-Inductive Sensor;
- Magnetic Linear Encoder System;
- Ultrasonic Sensors.

Part 4: Electrical Measurement Instruements

- Ammeters;
- Ohmmeters;
- Multimeters;
- Oscilloscope;
- Spectrum Analyzer;

- Signal Generator;
- Ammeters;
- Logic Probe.

Part 5: Mass Instruments

- Primary Standards and SI Units;
- Secondary and Working Standards;
- Mass and Weight;
- Mass Standards;
- Types and Classes of Mass Measurement;
- Industrial Weighing Systems;
- Accuracy Classes of Balances;
- Calibration of Balances.

Part 6: Pressure Measurement

- SI and Other Units;
- Absolute, Gauge and Differential Pressure Modes;
- Primary Standards;
- Spinning Ball Gauge Standard;
- Secondary Standards;
- Working Standards;
- Pressure Measuring Instruments.

Part 7: Measurement of Force

- SI and Other Units of Measurement;
- PRIMARY Standard;
- Secondary Standards;
- Force Measuring Instruments.

Part 8: Weighing Instruments

- Beltweigher;
- Check Scale;
- Check Weigher;

Part 9: Measurement Temperature

- SI and Units;
- Thermodynamic Scale;
- Practical Temperature Scales;
- International Temperature Scale of 1990 (ITS-90);
- Industrial Thermometers.

Part 10: Linear and Angular Measurement Instruments

- Length Measurement;
- 'Angular' Measurement;
- Using Autocollimators;
- Electronic Levels and Clinometers;
- Micro-Alignment Telescopes;
- Portable, Multi Gas Detectors;
- Infrared Gas Detector for Combustible Gas Leaks;

Part 11: Roundness Measurement and Cylindricity Measurement Instruments

- Roundness/Cylindricity Systems;
- Fully Automated Arm Attitude/Orientation Mechanism;
- Automated Gauge Calibration;
- Automatic Centre And Level With Arm Follow Mode;
- High Precision Roundness Range;
- Large Capacity Roundness Range;
- Bench Mounted Roundness Range;
- Turbine / Engine Stack Metrology Range.

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Click, or copy and paste the URL, below, into your Web Browser, to view our Service Contract, incorporating Terms and Conditions.

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The submission of our application form or otherwise registration by of the submission of a course booking form or e-mail booking request is an attestation of the candidate's subscription to our Policy Terms and Conditions, which are legally binding.

Prof. Dr. R. B. Crawford - Director HRODC Postgraduate Training Institute