HRODC Postgraduate Training Institute

A Postgraduate-Only Institution

#051

Power Quality Management: Power Quality Identification, Analysis and Remedy

Postgraduate Short Course

Leading To:

DIPLOMA - POSTGRADUATE IN

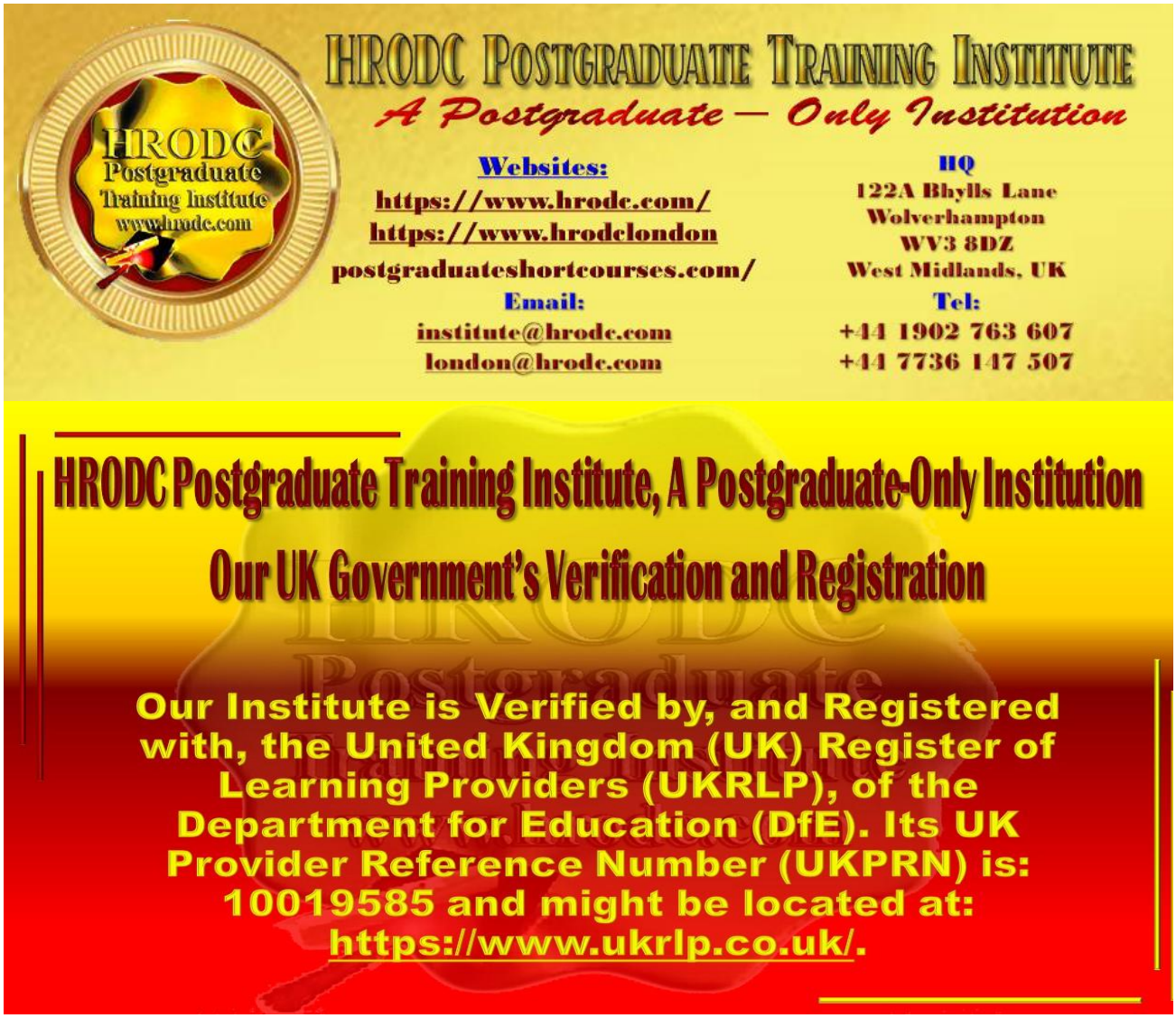
Power Quality Management, Double Credit, 60 Credit-Hours

Accumulating to A

Postgraduate Certificate, With 120 Additional Credit-Hours, or A

Postgraduate Diploma, With 300 Additional Credit-Hours

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.



Course Coordinator:

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

- Doctor of Philosophy {(PhD) {University College London (UCL) - University of London)};
- MEd Management (University of Bath);
- Postgraduate (Advanced) Diploma 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 the Asian Academy of Management (MAAM);
- Member of the International Society of Gesture Studies (MISGS);
- Member of the Standing Council for Organisational Symbolism (MSCOS);
- Member of ResearchGate;
- Executive Member of Academy of Management (AOM). There, his contribution incorporates the judging of competitions, review of journal articles, and guiding the development of conference papers. He also contributes to the Disciplines of:
    - 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.

Professor Dr. Crawford has been an Academic in the following UK Universities:

- University of London (Royal Holloway), as Research Tutor;
- University of Greenwich (Business School), as Senior Lecturer (Associate Professor), in Organisational Behaviour and Human Resource Management;
- University of Wolverhampton, (Wolverhampton Business School), as Senior Lecturer (Associate Professor), in Organisational Behaviour and Human Resource Management;
- London Southbank University (Business School), as Lecturer and Unit Leader.

His responsibilities in these roles included:

- Doctoral Research Supervisor;
- Admissions Tutor;
- Postgraduate and Undergraduate Dissertation Supervisor;
- Programme Leader;

- Personal Tutor

For Whom This Course is Designed

This Course is Designed For:

- Electric Power Monitoring Officers;
- Electrical grid Inspectors;
- Electricity Distribution Specialists;
- Electricity Generation Directors,
- Electricity Grid Specialists;
- Electronic Engineers;
- Energy Advisers;
- Energy Engineers;
- Energy Monitoring Agents;
- Energy Regulatory Officials;
- Equipment Testing Officers;
- Facilities Manager;
- Factory Superintendents;
- Health and Safety Officers;
- Inspection and Repair Technician;
- Installation and Testing Engineer;
- Mechanical Engineers;
- Power Distribution Agents;
- Power Engineers;
- Power Generation Professionals;
- Power Management Specialists;
- Power Quality Analysts;
- Power Quality Engineers;
- Power Supply Technician;
- Process Engineers;
- QC Supervisor;
- Quality Assurance Engineer;

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.

- Quality Assurance Tester;
- Technical Support Analyst;
- All others desirous of gaining a heightened understanding of Power Quality, its problems, causes, consequences and remedy.

Classroom-Based Duration and Cost:	
Classroom-Based Duration:	10 Days
Classroom-Based Cost:	£10,000.00 Per Delegate
Online (Video-Enhanced) Duration and Cost	
Online Duration:	20 Days – 3 Hours Per Day
Online Cost:	£6,700.00 Per Delegate

Classroom-Based Course and Programme 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;
- Postgraduate Diploma/ Diploma – Postgraduate –or
- Certificate of Attendance and Participation – if unsuccessful on resit.

Students and Delegates will be given a Selection of our Complimentary Products, which include:

- **Our Branded Leather Conference Folder**;
- **Our Branded Leather Conference Ring Binder/ Writing Pad;**
- **Our Branded Key Ring/ Chain**;
- **Our Branded Leather Conference (Computer – Phone) Bag – Black or Brown**;
- **Our Branded 8-16 GB USB Flash Memory Drive**, **with Course Material;**

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.

- **Our Branded Metal Pen;**
- **Our Branded Polo Shirt**.;
- **Our Branded Carrier Bag**.

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

Delivery Locations:

1. **Central London, UK;**
2. **Dubai, UAE;**
3. **Kuala Lumpur, Malaysia;**
4. **Amsterdam, The Netherlands;**
5. **Brussels, Belgium;**
6. **Paris, France; and**
7. **Durban, South Africa;**
8. **Other International Locations, on request.**

Power Quality Management: Power Quality Identification, Analysis and Remedy Course

Leading to Diploma – Postgraduate – in Power Quality Management (Double Credit) and 60 Credit-Hours, Accumulating to a Postgraduate Certificate, with 120 Additional Credit-Hours, or a Postgraduate Diploma, with 300 Additional Credit-Hours

Course Objectives

By the conclusion of the specified learning and development activities, delegates will be able to:

- Address Equipment Failure associated with Voltage Sags;
- Adjust the Brightness of the Fluke 434/435 Analyser;
- Adjust the Contrast in the screen of the Fluke 434/435 Three Phase Power Quality Analyser;

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.

- Adjust the Display of the Fluke 434/435 Analyser;
- Categorise Distorted Voltage Events
- Clean the Fluke 434/435 Analyser and its Accessories;
- Define Waveform, providing clear examples of that concept;
- Demonstrate an understanding of the Main Menu of Fluke 434/435;
- Demonstrate an understanding of the Trend Screen Fluke 434/435 Analyser;
- Demonstrate the use of a Fault Current Limiter (FCL)
- Demonstrate the use of Fluke 434/435 Three Phase Power Quality Analyser, determining particular aspects of Power Quality;
- Demonstrate their ability to use Cursor on the Waveform Displays on the Fluke 434/435 Analyser;
- Demonstrate their ability to use Events Tables in Fluke 434/435 Three Phase Power Quality Analyser;
- Demonstrate their familiarity with the General Operations of Fluke 434/435;
- Demonstrate their understanding of the Events Table in the Fluke 434/435 Analyser;
- Detect and address Power Quality and Voltage Sag Indices in Electrical Power Systems;
- Determine Multi-Phase Voltage Sags;
- Determining Equipment Affected by Voltage sags;
- Differentiate Limited Period Voltage Sags from Extended Period Voltage Sags;
- Display their familiarity with General Electrical Safety and Equipment Inspection;
- Effectively address Power Quality Deviations in Electrical Generation and Distribution Systems;
- Enumerate the Effects of Voltage Sags;
- Exhibit their heightened knowledge of Voltage Sags or Dips, their Occurrence and Remedy;
- Explain the root-cause of Voltage Sags in Industrial Plants or Industrial Complexes;
- Explain the unfriendly nature of Construction Activities and the extent to which they contribute to Voltage Sags;
- Identification of Equipment Contributing to Voltage sag;

- Identify Voltage Sag Problems;
- Identify, measuring and addressing Power Distribution Deviations;
- Identifying Voltage sags;
- Illustrate the means of detecting and addressing Harmonic content in the waveforms for AC power;
- Indicate the Impact of Thunderstorms and lightning strikes on Voltage Sags;
- Indicate their understanding of Utility Systems Voltage Sags;
- Input Information in the Fluke 434/435 Analyser;
- Install at least two options in the Fluke 434/435 Analyser;
- List at least three Periodic Waves;
- Means of Addressing Overall Problems Associated with Voltage Sags.
- Means of Protection Against Voltage Sags.
- Measure Harmonics;
- Measuring Flickers, using the Fluke 434/435 Three Phase Power Quality Analyser;
- Measuring Unbalance, using the Fluke 434/435 Three Phase Power Quality Analyser;
- Name at least ten Parts and Accessories of the Fluke 434/435 Analyser;
- Name at least two waveform characteristics;
- Name the Extended Voltage Variations:
- Name the Instanteneous Voltage Variations
- Navigate from Events Table to Trend Display with Cursor on, on the Fluke 434/435 Analyser;
- Navigate the Fluke 434/435;
- Outline the occurrence of Distribution Voltage sags;
- Phase 3 Voltage sags: Causes and Remedies;
- Phase to Phase Voltage Sags: causes and Remedies
- Pinpoint Transmission Voltage Sags and their associated problems;
- Point out the most important Safety Issues in Fluke 434/435 Three Phase Power Quality Analyser;
- Power the Fluke 434/435 Analyser on and off;
- Propose solutions to Transformer Associated Voltage Sags;

- Provide an explanation of the relationship between the Waveforms in AC and DC Currents;
- Provide insights into Voltage Sag Compensation of Point of Common Coupling (PCC)
- Relate, with confidence, the Effect of Pollution Salt Spray Build-up on Power Line Insulators on Voltage Sags.
- Release the Keyboard Lock on the Fluke 434/435 Analyser;
- Reset Fluke 434/435 Analyser to Factory Default;
- Resolve Voltage Sag Issue;
- Show their familiarity with the Investigative Measuring Modes of Fluke 434/435;
- Single Phase Voltage Sags: Causes and Remedies;
- Suggest the effect of vehicle collision, on Utility Power Lines and their Resultant Voltage Sags,
- Suggest the ways that the Battery of the Fluke 434/435 Analyser; can be kept in Good Condition;
- Switch between the Meter Screen and Bar Graph Screens in Fluke 434/435 Three Phase Power Quality Analyser;
- Switch to the Power Quality Main Screen on the Fluke 434/435 Analyser;
- The Effect of Large Industrial Electrical Equipment Usage on Power Supply, Resulting in Voltage Sags;
- Use and Operation of Reclosers and Circuit Breakers;
- Use the 'Tilt Stand' and Hand Strap of Fluke 434/435;
- Use the Events Table in Fluke 434/435 Analyser;
- Use the Fluke 434/435 Analyser for a variety of Electrical Measurements.
- Use the Fluke 434/435 Three Phase Power Quality Analyser to Measure Power and Energy;
- Use the General Settings on the Fluke 434/435 Analyser;
- Vividly describe the ways in which animals can Affect Power Lines and Transformers, resulting in Voltage Sags.

Course Contents, Concepts and Issues

Part 1: AC Waveform and Circuitry

- Waveform: A Definition;
- Waveform Characteristics:
  - Waveform Period (T);
  - Waveform Frequency, (f);
  - Waveform Amplitude (A).
- Periodic Waveforms:
  - Sine Waves;
  - Square waves;
  - Complex Waves;
  - Square Waves;
  - Triangular Waves.
- Waveforms in AC and DC Currents;
- **AC Current and the Sinusoid**or**Sinusoidal Waveform**.

Part 2: Using Fluke 434/435 Three Phase Power Quality Analyser (1)

Preliminaries of Fluke 434/435 Three Phase Power Quality Analyser

- Safety Issues for Fluke 434/435 Three Phase Power Quality Analyser;
- Menu of Fluke 434/435;
- Using Events Tables;

Screen Display

- Display Contrast;
- Screen Types;
- Input Connections;
- Meter screen;
- Phase Colours;

- Bar Graph Screen;
- Meter Screen;
- Adjusting the Contrast.

General Operations and Menu Navigation

- General Operations of Fluke 434/435;
- Navigating the Fluke 434/435;
- 'Tilt Stand' and Hand Strap of Fluke 434/435;
- Powering on and off the Fluke 434/435 Analyser;
- Adjusting the Display of the Fluke 434/435 Analyser;
- Adjusting the Brightness of the Fluke 434/435 Analyser;
- Keyboard Lock for Fluke 434/435 Analyser
- Resetting Fluke 434/435 Analyser to Factory;
- Common Screen Information;
- Input Information.

Part 3: Using Fluke 434/435 Three Phase Power Quality Analyser (2)

Mains Signalling

- Events Table;
- Trend Screen;
- Special Notes;
- Specific Issues.

Logger

- Start Menu;
- Trend Screen;
- Meter Screen;
- Events

Power Quality Monitoring

- Power Quality Main Screen;
- Events Table;

- Trend Display;
- Bar Graph Screen.

Cursor and Zoom

- Cursor on Waveform Displays;
- Cursor on Trend Display;
- From Events Table to Trend Display with Cursor On;
- Cursor on Bar-graph Displays.

Setting up the Analyser

- General Settings;
- Function Preferences;
- User Preferences;
- Limits Adjustments.

Using Memory, Printer, and PC

- Using Memory,
- Using a Printer and PC

Device Maintenance and General Advice

- Cleaning the Analyser and its Accessories;
- Storing the Analyser;
- Keeping the Battery in Good Condition;
- Installation of Options in Fluke 434 and 435
- Parts and Accessories;
- Troubleshooting;
- Electrical Measurements.

Part 4: Using Fluke 434/435 Three Phase Power Quality Analyser (3)

General Measurement Features of Fluke 434/435:

- General Measurements;
- Measuring Modes to Investigate Details;
- Investigative Measuring Modes of Fluke 434/435;

Scope Waveform and Phasor

- Scope Waveform;
- Scope Phasor;
- Relevant Developmental Issues;

Measuring Volts/Amps/Hertz

- Meter Screen;
- Relevant Developmental Issues;
- Trend Screen;
- Model-Specific Issues.

Measuring Dips & Swells

- Trend Screen;
- Events Table;
- Developments relevant to specific model.

Part 5: Voltage Sags or Dips: Their Occurrence and Remedy (1)

- What is a Voltage Sag?
- Occurrence of Voltage Sags;
- Voltage Sag Problem Identification;
- Causes of Voltage Sags;
- Phase and Multi-phase Voltage Sags;
- Effect of Voltage Sags;
- Voltage Sag Fault Analysis;

- Limited Period Voltage Sags;
- Extended Period Voltage Sags;
- Resolving Voltage Sag Issue.

Part 6: Voltage Sags or Dips: Their Occurrence and Remedy (2)

- Utility Systems Voltage Sags;
- Distribution Voltage sags;
- Transmission Voltage Sags;
- Transformer Associated Voltage Sags;
- Voltage Sags in Industrial Plants or Industrial Complexes;
- Voltage Sags AC Supply;
- Voltage Sag Compensation of Point of Common Coupling (PCC)
- Using Fault Current Limiter (FCL)
- Voltage Sags in Sensitive Loads;
- Use and Operation of Reclosers and Circuit Breakers;
- Dealing with Equipment Failure associated with Voltage Sags;
- The Impact of Thunderstorms and lightning strikes on Voltage Sags;
- The Effect of Pollution Salt Spray Build-up on Power Line Insulators on Voltage Sags.

Part 7: Voltage Sags or Dips: Their Occurrence and Remedy (4)

- The Ways in Which Animals Can Affect Power Lines and Transformers, Causing Voltage Sags;
- The Effect of Vehicle Collision, on Utility Power Lines and their Resultant Voltage Sags,
- The Unfriendly nature of Construction Activities and the extent to which they Contribute to Voltage Sags;
- The Effect of Large Industrial Electrical Equipment Usage on Power Supply, Resulting in Voltage Sags;
- Single Phase Voltage Sags: Causes and Remedies;

- Phase to Phase Voltage Sags: causes and Remedies
- Phase 3 Voltage sags: Causes and Remedies;
- Means of Protection Against Voltage Sags.
- Identifying Voltage sags;
- Identification of Equipment Contributing to Voltage sag;
- Determining Equipment Affected By Voltage sags;
- Means of Addressing Overall Problems Associated with Voltage Sags.

Part 8: Categorising Distorted Voltage Events

Short Duration Voltage Variations:

- Instanteneous Voltage Variations
  - Voltage Sags or Dips;
  - Voltage Swells.
- Momentary Voltage Variations:
  - Voltage Interruptions;
  - Voltage Sags or Dips;
  - Voltage Swells.
- Temporary Voltage Variations:
  - Voltage Interruptions;
  - Voltage Sags or Dips;
  - Voltage Swells.

Extended Voltage Variations:

- Sustained Power Interruptions;
- Undervoltages;
- Overvoltages.

Part 9: Using Fluke 434/435 Three Phase Power Quality Analyser (4)

Measuring Harmonics

- Bar Graph Screen;
- Trend Screen;
- Meter screen;
- Model-Specific Information;
- Relevant Developments and Additional Guides.

Measuring Power and Energy

- Meter screen;
- Trend Screen;
- Relevant Guidance;
- Additional Guidance.

Measuring Flicker

- Meter screen;
- Trend Screen;
- Relevant Developments;
- Additional Tips and Guidance.

Measuring Unbalance

- Meter Screen;
- Trend Screen;
- Phasor.

Transients

- Waveform Display;
- Trend Screen;
- General Guidance and Specific Pointers.

Inrush

- Inrush Trend Display;
- Trend Screen;
- Special Advice and Additional Guidance;
- Question and Answers.

Part 10: Addressing Power Quality Deviations in Electrical Generation and Distribution Systems (1)

- Power quality disturbances;
- Voltage sags;
- Power Quality and Voltage Sag Indices in Electrical Power Systems
- Power Interruptions;
- Transient Over voltages;
- Detecting and Addressing Power Quality and Voltage Sag Indices in Electrical Power Systems;
- Detecting and Dealing with Harmonic content in the waveforms for AC power.

Part 11: Understanding and Addressing Power Quality Deviations in Electrical Generation and Distribution Systems (2)

- Determining and Modifying a Voltage Imbalance;
- The Value of Voltage sag statistical indices;
- Types of indices;
- Establishing and utilising Voltage sag statistical indices;
- Electrical Generation and Distribution Systems and Power Quality Disturbances;
- Identifying, Measuring and Addressing Power-Quality Events;
- Event Characteristics;
- Creating Single Event Indices;
- Power Quality and Voltage Sag Indices in Electrical Power Systems

Part 12: Identifying, Measuring and Addressing Power Distribution Deviations

- Identifying and Dealing with Current Swells
- Addressing Dips or Sags in Current Distribution;
- Random or repetitive variations in the RMS;
- Dealing with Flickers in Lighting;
- Identifying and addressing Brief increases in voltage (Spikes, Impulses, or Surges;
- Stabilising Large Inductive Loads;
- Undervoltage, Its cause and Remedy;
- Overvoltage: Its Cause and Method or Rectification;
- Addressing Power Frequency Variations;
- Identifying and Addressing Variations in wave shape (harmonics);
- Common Mode Distortion or Interharmonics at higher frequencies: Their Occurrence and Remedy:
  - Nonzero low-frequency impedance
  - Nonzero high-frequency impedance.

Part 13: General Electrical Safety and Equipment Inspection

- Identifying Electrical Equipment with A Heating Time Constant Exceeding the Norm;
- Single-Phase Measurements;
- Multi-Channel Three Phase Measurement;
- Inspection of Electrical Equipment;
- Equipment Safety Testing;
- **Measurement Methods;**
- Earth Resistance Measuring;
- Earth Resistance Measuring Methods;
- Using Earth Resistance and Resistivity Meters – e.g. Sonel MRU-30 Meter;
- Using the Index: WMGBPQM711;
- Index: WMGBPAT806 (PAT 806) Digital Meter.

Postgraduate Diploma, Postgraduate Certificate, and Diploma – Postgraduate - Short Course Regulation

Postgraduate Certificate, Postgraduate Diploma, and Diploma – Postgraduate: Their Distinction, Credit Value and Award Title

Postgraduate Short Courses of a minimum of five days' duration, are referred to as Diploma – Postgraduate. This means that they are postgraduate credits, towards a Postgraduate Certificate and Postgraduate Diploma. Postgraduate Certificate and Postgraduate Diploma represent Programmes of Study, leading to Awards bearing their title prefixes. While we, refer to our short studies, of 5 days to five weeks, as 'Courses', those with duration of 6 weeks and more are labelled 'Programmes'. Nevertheless, in line with popular usage, we often refer to all study durations as 'Courses'. Another mark of distinction, in this regard, is that participants in a short course are referred to as 'Delegates', as opposed to the term 'Students', which is confined to those studying a Postgraduate Programme.

Courses are of varying Credit-Values; some being Single-Credit, Double-Credit, Triple-Credit, Quad-Credit, 5-Credit, etc. These short courses accumulate to Postgraduate Certificate, with a total of 180 Credit-Hours (= 6 X 5-Day Courses or 3 X 10-Day Courses), or Postgraduate Diploma, with a total of 360 Credit-Hours (= 12 X 5-Day Courses or 6 X 10-Day Courses).

Delegates studying courses of 5-7 days' duration, equivalent to 30-42 Credit-Hours (Direct Lecturer Contact), will, on successful assessment, receive the Diploma – Postgraduate Award. This represents a single credit at Postgraduate Level. While 6-day and 7-day courses also lead to a Diploma – Postgraduate, they accumulate 36 and 42 Credit Hours, respectively.

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.

Postgraduate Certificate, Postgraduate Diploma, and Diploma – Postgraduate Assessment Requirement

Because of the intensive nature of our courses and programmes, assessment will largely be in-course, adopting differing formats. These assessment formats include, but not limited to, in-class tests, assignments, end of course examinations. Based on these assessments, successful candidates will receive the Diploma – Postgraduate, Postgraduate Certificate, or Postgraduate Diploma, as appropriate.

In the case of Diploma – Postgraduate, a minimum of 70% overall pass is expected. In order to receive the Awards of Postgraduate Certificate and Postgraduate Diploma, candidates must have accumulated at least the required minimum 'Credit-Hours', with a pass (of 70% and above) in at least 70% of the courses taken.

Delegates and students who fail to achieve the requirement for Postgraduate Certificate, Postgraduate Diploma, or Diploma - Postgraduate - will be given support for 2 re-submissions for each course. Those delegates who fail to achieve the assessment requirement for the Postgraduate Diploma or Diploma - Postgraduate - on 2 resubmissions, or those who elect not to receive them, will be awarded the Certificate of Attendance and Participation.

Diploma – Postgraduate, Postgraduate Certificate, and Postgraduate Diploma Application Requirements

Applicants for Diploma – Postgraduate – Postgraduate Certificate, and Postgraduate Diploma are required to submit the following documents:

- Completed Postgraduate Application Form, including a passport sized picture affixed to the form;
- A copy of Issue and Photo (bio data) page of the applicant's current valid passport or copy of his or her Photo-embedded National Identity Card;
- Copies of credentials mentioned in the application form.

Admission and Enrolment Procedure

- On receipt of all the above documents we will assess applicants' suitability for the Course or Programme for which they have applied;
- If they are accepted on their chosen Course or Programme, they will be notified accordingly and sent Admission Letters and Invoices;
- One week after the receipt of an applicant's payment or official payment notification, the relevant Course or Programme Tutor will contact him or her, by e-mail or telephone, welcoming him or her to HRODC Postgraduate Training Institute;
- Those intending to study in a foreign country, and require a Visa, will be sent the necessary immigration documentation, to support their application;
- Applicants will be notified of the dates, location and venue of enrolment and orientation, where appropriate.

Modes of Study and Duration of Postgraduate Certificate and Postgraduate Diploma Programmes

There are two delivery formats for Postgraduate Certificate and Postgraduate Diploma Programmes, as follows:

1. Intensive Full-time (Classroom-Based) Mode, lasting 3 months for Postgraduate Diploma, and 6 weeks for Postgraduate Certificate. These durations are based on six hours' lecturer-contact per day, five days (30 hours) per week, for Postgraduate Diploma;
2. Video-Enhanced On-Line Mode. This interactive online mode lasts twenty (20) weeks, for Postgraduate Diploma, and ten (10) weeks for Postgraduate Certificate. Our calculation is based on three hours per day, six days per week.

Whichever study mode is selected, the aggregate of 360 Credit Hours must be achieved.

Introducing Our Video-Enhanced Online Study Mode

In a move away from the traditional online courses and embracing recent developments in technology-mediated distance education, HRODC Postgraduate Training Institute has introduced a Video-Enhanced Online delivery. This Online mode of delivery is revolutionary and, at the time of writing, unique to HRODC Postgraduate Training Institute.

You are taught as individuals, on a one-to-one or one-to-small-group basis. You see the tutor face to-face, for the duration of your course. You will interact with the tutor, ask and address questions; sit examinations in the presence of the tutor. It is as real as any face-to-face lecture and seminar can be. Choose from a wide range of Diploma – Postgraduate Courses and an increasing number of Specialist Postgraduate Certificate and Postgraduate Diploma Programmes. You might also accumulate Postgraduate Short Courses, via this mode of study, over a 6-year period, towards a Postgraduate Certificate or Postgraduate Diploma.

Key Features of Our Online Study: Video-Enhanced Online Mode

- The tutor meets the group and presents the course, via Video, in a similar way to its classroom-based counterpart;
- All participants are able to see, and interact with, each other, and with the tutor;
- They watch and discuss the various video cases and demonstrations that form an integral part of our delivery methodology;
- Their assessment is structured in the same way as it is done in a classroom setting;
- The Video-Enhanced Online mode of training usually starts on the 1st of each month, with the cut-off date being the 20th of each month, for inclusion the following month;
- Its duration is twice as long as its classroom-based counterpart. For example, a 5-day (30 Credit Hours) classroom-based course will last 10 days, in Video-Enhanced Online mode. This calculation is based on 3 hours tuition per day, adhering to the Institute's required 30 Credit-Hours;
- The cost of the Video-Enhanced Online mode is 67% of similar classroom-based courses;

- For example, a 5-day classroom-based course, which costs Five Thousand Pounds, is only Three Thousand Three Hundred and Fifty Pounds (£3,350.00) in Video-Enhanced Online Mode.

10-Week Video-Enhanced Online Postgraduate Certificate and 20-Week Video-Enhanced Online Postgraduate Diploma

You might study an Online Postgraduate Certificate or Online Postgraduate Diploma, in 10 and 20 weeks, respectively, in the comfort of your office or homes, through HRODC Postgraduate Training Institute's Video-Enhanced Online Delivery. We will deliver the 180 Credit-Hours and 360 Credit-Hours, in line with our regulation, through 'Direct-Lecturer-Contact', within the stipulated timeframe. We aim to fit the tuition around your work, family commitment and leisure, thereby enhancing your maintenance of an effective 'work-study-life-style balance', at times convenient to you and your appointed tutor.

Cumulative Postgraduate Certificate and Postgraduate Diploma Courses

All short courses can accumulate to the required number of Credit-Hours, for the Postgraduate Certificate and Postgraduate Diploma, over a six-year period from first registration and applies to both general and specialist groupings. In this regard, it is important to note that short courses vary in length, the minimum being 5 days (Diploma – Postgraduate) – equivalent to 30 Credit Hours, representing one credit, as is tabulated below.

On this basis, the definitive calculation on the Award requirement is based on the number of hours studied (aggregate credit-value), rather than merely the number of credits achieved. This approach is particularly useful when a student or delegate studies a mixture of courses of different credit-values.

For those delegates choosing the accumulative route, it is advisable that at least one or two credits be attempted each year. This will ensure that the required 180 Credit-Hours and 360 Credit-Hours, for the Postgraduate Certificate and Postgraduate Diploma, respectively, are

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.

achieved, within the designated period. These Credit-Values, awards and their accumulation are exemplified below.

Examples of Postgraduate Course Credits: Their Value, Award Prefix & Suffix – Based on 5-Day Multiples		
Credit Value	**Credit Hours**	**Award Title Prefix (& Suffix)**
Single-Credit	30-54	Diploma - Postgraduate
Double-Credit	60-84	Diploma – Postgraduate (Double-Credit)
Triple-Credit	90-114	Diploma – Postgraduate (Triple-Credit)
Quad-Credit	120-144	Diploma – Postgraduate (Quad-Credit)
5-Credit	150-174	Diploma – Postgraduate (5-Credit)
6-Credit	180-204	Postgraduate Certificate
7-Credit	210-234	Postgraduate Certificate (+ 1 Credit)
8-Credit	240-264	Postgraduate Certificate (+2 Credits)
9-Credit	270-294	Postgraduate Certificate (+3 Credits)
10-Credit	300-324	Postgraduate Certificate (+ 4 Credits)
11-Credit	330-354	Postgraduate Certificate (+5 Credits)
12-Credit	360	Postgraduate Diploma
360 Credit-Hours = Postgraduate Diploma		
12 X 5-Day Courses = 360 Credit-Hours = Postgraduate Diploma		
10 X 6-Day Courses = 360 Credit-Hours = Postgraduate Diploma		

Exemplification of Accumulated Postgraduate Certificate and Postgraduate Diploma Award Titles

All Specialist Postgraduate Certificate and Postgraduate Diploma Programmes have their predetermined Award Titles. Where delegates do not follow a Specialism, for accumulation to a Postgraduate Diploma, they will normally be Awarded a General Award, without any Specialist Award Title. However, a Specialist Award will be given, where a delegate studies

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.

at least seventy percent (70%) of his or her courses in a specialist grouping. These are exemplified below:

1. **Postgraduate Diploma in Accounting and Finance;**
2. **Postgraduate Certificate in Accounting and Finance;**
3. **Postgraduate Certificate in Aviation Management;**
4. **Postgraduate Diploma in Aviation Management;**
5. **Postgraduate Certificate in Industrial Health and Safety Management, Incorporating Oil and Gas Safety;**
6. **Postgraduate Diploma in Industrial Health and Safety Management, Incorporating Oil and Gas Safety;**
7. **Postgraduate Certificate in Business Communication;**
8. **Postgraduate Diploma in Business Communication;**
9. **Postgraduate Certificate in Corporate Governance;**
10. **Postgraduate Diploma in Corporate Governance;**
11. **Postgraduate Certificate in Costing and Budgeting;**
12. **Postgraduate Diploma in Costing and Budgeting;**
13. **Postgraduate Certificate in Client or Customer Relations;**
14. **Postgraduate Diploma in Client or Customer Relations;**
15. **Postgraduate Certificate in Engineering and Technical Skills;**
16. **Postgraduate Diploma in Engineering and Technical Skills;**
17. **Postgraduate Certificate in Events Management;**
18. **Postgraduate Diploma in Events Management;**
19. **Postgraduate Certificate in Health and Safety Management;**
20. **Postgraduate Diploma in Health and Safety Management;**
21. **Postgraduate Certificate in Health Care Management;**
22. **Postgraduate Diploma in Health Care Management;**
23. **Postgraduate Certificate in Human Resource Development;**
24. **Postgraduate Diploma in Human Resource Development;**
25. **Postgraduate Certificate in Human Resource Management;**
26. **Postgraduate Diploma in Human Resource Management;**

27. **Postgraduate Certificate in Information and Communications Technology (ICT);**
28. **Postgraduate Diploma in Information and Communications Technology (ICT);**
29. **Postgraduate Certificate in Leadership Skills;**
30. **Postgraduate Diploma in Leadership Skills;**
31. **Postgraduate Certificate in Law – International and National;**
32. **Postgraduate Diploma in Law – International and National;**
33. **Postgraduate Certificate in Logistics and Supply Chain Management;**
34. **Postgraduate Diploma in Logistics and Supply Chain Management;**
35. **Postgraduate Certificate in Management Skills;**
36. **Postgraduate Diploma in Management Skills;**
37. **Postgraduate Certificate in Maritime Studies;**
38. **Postgraduate Diploma in Maritime Studies;**
39. **Postgraduate Certificate in Oil and Gas Operation;**
40. **Postgraduate Diploma in Oil and Gas Operation;**
41. **Postgraduate Certificate in Oil and Gas Accounting;**
42. **Postgraduate Diploma in Oil and Gas Accounting;**
43. **Postgraduate Certificate in Politics and Economic Development;**
44. **Postgraduate Diploma in Politics and Economic Development;**
45. **Postgraduate Certificate in Procurement Management;**
46. **Postgraduate Diploma in Procurement Management;**
47. **Postgraduate Certificate in Project Management;**
48. **Postgraduate Diploma in Project Management;**
49. **Postgraduate Certificate in Public Administration;**
50. **Postgraduate Diploma in Public Administration;**
51. **Postgraduate Certificate in Quality Management;**
52. **Postgraduate Diploma in Quality Management;**
53. **Postgraduate Certificate in Real Estate Management;**
54. **Postgraduate Diploma in Real Estate Management;**

55. **Postgraduate Certificate n Research Methods;**
56. **Postgraduate Diploma in Research Methods;**
57. **Postgraduate Certificate in Risk Management;**
58. **Postgraduate Diploma in Risk Management;**
59. **Postgraduate Certificate in Sales and Marketing;**
60. **Postgraduate Diploma in Sales and Marketing;**
61. **Postgraduate Certificate in Travel, Tourism and International Relations;**
62. **Postgraduate Diploma in Travel, Tourism and International Relations.**

The actual courses studied will be detailed in a student or delegate's Transcript.

Service Contract, incorporating Terms and Conditions

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

https://www.hrodc.com/Service_Contract_Terms_and_Conditions_Service_Details_Delivery_Point_Period_Cancellations_Extinuating_Circumstances_Payment_Protocol_Location.htm

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. Ronald B. Crawford
Director
HRODC Postgraduate Training Institute

HRODC Postgraduate Training Institute
HQ : 122A Bhylls Lane, Castlecroft, Wolverhampton, West Midlands WV3 8DZ, UK
Prof. Dr. Ronald B. Crawford - Director
PhD (Uni London); M. Ed. M (Bristol); PGCIS (UWL); Adv. Dip. Sc. Ed (Bristol); Dip. Doc. Res. (Uni Wlv); F.I.M.S.; HR. S. (I.M.S.); Exec. M. AOM; M. AAM; M.I.S.G.S.; M.S.C.O.S.; M. RG. C.