

HRODC Postgraduate Training Institute



A Postgraduate - Only Institution



#064

High Voltage Engineering: Designing a Reliable and Economic Insulation System

Postgraduate Short Course

Leading To:

DIPLOMA - POSTGRADUATE IN

High Voltage Engineering Double Credit, 60 Credit-Hours

Accumulating to A

Postgraduate Certificate, With 90 Additional Credit-Hours, or A

Postgraduate Diploma, With 270 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.



HRODC POSTGRADUATE TRAINING INSTITUTE
A Postgraduate – Only Institution

Websites:
<https://www.hrodc.com/>
<https://www.hrodc.london/postgraduatecourses.com/>

Email:
institute@hrodc.com
london@hrodc.com

HQ
122A Bhylls Lane
Wolverhampton
WV3 8DZ
West Midlands, UK

Tel:
+44 1902 763 607
+44 7736 147 507

HRODC Postgraduate Training Institute, A Postgraduate-Only Institution


Our UK Government's Verification and Registration

Our Institute is Verified by, and Registered with, the United Kingdom (UK) Register of Learning Providers (UKRLP), of the Department for Education (DfE). Its UK Provider Reference Number (UKPRN) is: 10019585 and might be located at: <https://www.ukrlp.co.uk/>.

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);



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.

- 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;

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.



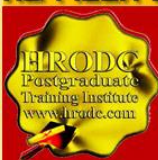
- Programme Leader;
- Personal Tutor

For Whom This Course is Designed

This Course is Designed For:

- Electrical Engineers;
- Master Electricians;
- Maintenance Electricians;
- Electrical Contractors;
- Utility and Industrial Electrical Engineers and Engineering Technicians;
- Industrial Line Workers;
- Project Engineers;
- Design Engineers;
- Field Technicians;
- Electrical Technicians;
- Plant Operators;
- Plant Engineers;
- Electrical Supervisors;
- Electrical Engineering Professor/Lecturer;
- Line and Station Engineers.

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;**
- **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.

**High Voltage Engineering:
Designing a Reliable and Economic Insulation System Course**

**Leading to Diploma – Postgraduate – in High Voltage Engineering
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 Contents, Concepts and Issues

Part 1: Breakdown Mechanism in Gases under Static Uniform Field

- What is Breakdown of Insulators?;
- Electric Field and Stress;
- Bohr's Atomic and Model;
- Ionization;
- Ionization Processes:
 - Ionization by Collision;
 - Photo-Ionization;
 - Ionization on the Surface of Electrodes;
- Townsend's Mechanism;
- Time Lag for Breakdown;
- Streamer Theory of Breakdown Gases;
- Townsend's Mechanisms vs. Streamer Mechanisms;
- Post-Breakdown Current – Voltage Characteristics;
- Recovery of Electric Field Strength.

Part 2: Breakdown Characteristics of Gases under Uniform Field

- Explanations on α and γ ;
- Paschen's Law;
- Minimum Breakdown Voltage;
- Effect of Temperature;
- De-Ionization;
- Desirable Properties of Gaseous Insulator;
- Sulphur Hexafluoride (SF_6) As Insulator;
- Vacuum as Dielectric;
- Factors Affecting Time Lag For Breakdown;
- Breakdown in a Uniform AC Field;
- Breakdown under Impulse Voltage;
- Practical Breakdown Characteristics.

Part 3: Breakdown of Gases in a Non-Uniform Field

- Breakdown of Gases in Uniform and Non-Uniform Fields;
- Degree of Non-Uniformity;
- Breakdown in Non-Uniform Field;
- Effect of Space Charge on the Breakdown Voltage;
- Effect of Pressure on Corona Inception and Breakdown Voltage;
- Corona Inception Stress in Air;
- Corona Current;
- Corona Loss in Air.

Part 4: Lightning Phenomenon

- Defining Lightning;
- Charge Formation in Cloud;
- Different Form of Lightning:
 - Cloud Flashes;
 - Air Discharges;
 - Forked Lightning or Lightning Stroke To Ground.
- Mechanism of Forked Lightning;
- Multiple Strokes;
- Return Stroke Current;
- Energy in Lightning.

Part 5: Breakdown in Liquids and Solids

- Introduction;
- Breakdown in Liquids:
 - Classification of Liquids;
 - Liquid Breakdown Test Cells;
 - Breakdown in Pure Liquids;
 - Breakdown in Commercial Liquids.
- Breakdown in Solids:
 - Intrinsic Breakdown;
 - Electromechanical Breakdown;
 - Thermal Breakdown;
 - Mechanisms of Breakdown Occurring After Prolonged Operation.
- Breakdown of Composite Dielectrics.

Part 6: Generation of High Voltages

- Introduction;
- Impulse Voltages:
 - Characteristics;
 - Single-Stage Impulse Generator Circuits;
 - Multi-Stage Impulse Generators;
 - Construction Features of Impulse Generators;
 - Generation of Switching Impulse Voltages.
- Generation of High Alternating Voltages:
 - Testing Transformers;
 - Cascaded Transformers;
 - Series Resonant Circuits.
- Generation of High Direct Voltages:
 - Characteristics Parameters;
 - Fundamentals of Rectifier Circuits;
 - Voltage Double Circuit.
- Cascade Circuit;
- Van de Graff Generator.

Part 7: Measurement of High Voltage

- Measurement of High Alternating Voltages:
 - Peak Voltage Measurement with Sphere-Gaps;
 - Peak Voltage Measurement Using Measuring Capacitors;
 - Peak Value Measurement with Capacitor Voltage Divider;
 - Measurement of RMS Values by Electrostatic Voltmeters;
 - Capacitance Voltage Transformer (CVT);
 - Digital Recording.
- Measuring of High Direct Voltages:

- Electrostatic Voltmeters;
 - Generating Voltmeter
 - Sphere-Gap;
 - Measurement of Ripple Voltages.
- Measurement of Impulse Voltages;
 - Peak Value Measurement Using a Sphere-Gap;
 - Voltage Dividers;
 - Resistive Voltage Divider;
 - Capacitance Voltage Dividers;
 - Delay Cables;
 - Measurement of Peak Voltage by an Indicating Electronic Device;
 - Digital Records for Impulse Measurements.

Part 8: Overvoltage Transients in Power Systems

- Basic Concepts of Transients;
- Classification of Power System Transients;
- Lightning Overvoltage:
 - Interaction between Lightning and the Power System;
 - Propagation of Lightning Current and Voltage along Transmission Lines
 - Shape of Lightning Voltage Waves;
 - Reflection and Refraction of Rectangular Travelling Waves;
 - Successive Reflections;
 - Ground Wires.
- Switching Overvoltages:
 - Transient Initiated By the Clearing of a Fault;
 - Switching Overvoltages Due To Disconnection of an Unloaded Transformer;
 - Overvoltage Due To Capacitance Switching;
 - Overvoltage Due To Ferro-Resonance;
 - Power Frequency Overvoltages;
 - Control of Overvoltages Due To Switching.

- Transformer Winding Behaviour under Transient Conditions;
- Protection of System Insulation against Transient Overvoltages;
- Insulation Coordination.

Part 9: High Voltage Testing of Power System Equipment

- Introduction;
- Terms Used In Standards;
- High Voltage Tests on Line Insulators:
 - Arrangement of Insulators for Test;
 - Power Frequency Tests;
 - Impulse Tests;
 - Impulse Withstand Voltage Tests;
 - Pollution Testing.
- High Voltage Test on Bushings;
- High Voltage Tests on Transformers:
 - Induced and Applied Overvoltage Tests;
 - Impulse Testing Of Transformers;
 - Lightning Impulse Testing;
 - Switching Impulse Tests.
- High Voltage Tests on Cables;
- Non-Destructive High Voltage Tests:
 - Measurement Capacitance and Dissipation Factor;
 - Partial Discharge Measurements.
- Tests on Lightning Arresters:
 - Impulse Current Test.

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.

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;

High Voltage Engineering: Designing a Reliable and Economic Insulation System Course, Leading to Diploma Postgraduate - in High Voltage Engineering (Double Credit), and 60 Credit-Hours, Accumulating to A Postgraduate Certificate, with 120 Additional Credit-Hours, a Postgraduate Diploma, with -300 Additional Credit-Hours

- 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

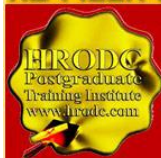
All short courses can accumulate to the required number of Credit-Hours, for the Postgraduate Certificate and Postgraduate Diploma, over a six-year period from first registration and applies to both general and specialist groupings. In this regard, it is important to note that short courses vary in length, 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

High Voltage Engineering: Designing a Reliable and Economic Insulation System Course - Page 16 of 20

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.

High Voltage Engineering: Designing a Reliable and Economic Insulation System Course, Leading to Diploma Postgraduate - in High Voltage Engineering (Double Credit), and 60 Credit-Hours, Accumulating to A Postgraduate Certificate, with 120 Additional Credit-Hours, a Postgraduate Diploma, with -300 Additional Credit-Hours

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

High Voltage Engineering: Designing a Reliable and Economic Insulation System Course - Page 17 of 20

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;**

High Voltage Engineering: Designing a Reliable and Economic Insulation System Course, Leading to Diploma Postgraduate - in High Voltage Engineering (Double Credit), and 60 Credit-Hours, Accumulating to A Postgraduate Certificate, with 120 Additional Credit-Hours, a Postgraduate Diploma, with -300 Additional Credit-Hours

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