

# HRODC Postgraduate Training Institute



**A Postgraduate - Only Institution**



**#008**

**Fibre Optic System Configuration  
and Cable Installation**

**Postgraduate Short Course**

**Leading To:**

**DIPLOMA - POSTGRADUATE IN**

**Fibre Optic System Configuration and  
Cable Installation, Double Credit, 60 Credit-  
Hours**

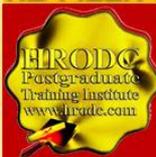
**Accumulating to A**

**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.



**HRODC POSTGRADUATE TRAINING INSTITUTE**  
*A Postgraduate – Only Institution*

**Websites:**  
<https://www.hrodc.com/>  
<https://www.hrodc.london>  
[postgraduateshortcourses.com/](https://www.postgraduateshortcourses.com/)

**Email:**  
[institute@hrodc.com](mailto:institute@hrodc.com)  
[london@hrodc.com](mailto: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/>.**

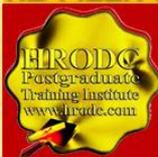
#### Course Coordinator:

**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);
- Diploma in Doctoral Research Supervision, (University of Wolverhampton);

Fibre Optic System Configuration and Cable Installation Seminar or Course - Page 2 of 24

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- 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;

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M. RG. C.



➤ Personal Tutor

**For Whom This Course is Designed**

**This Course is Designed For:**

- Cabling Services Technician;
- Electronic Technician;
- Fibre Optic Assembler;
- Fibre Optic Cable Technician;
- Fibre Optic Installer;
- Fibre Optic Splicer;
- Fibre Optic Technician;
- Field Operations Technician;
- Optical Engineer;
- Optical Trans Receiver Hardware Engineer;
- Staff Hardware Engineer;
- Support Operations Specialist;
- Systems and Communications Technician;
- Telecommunications Engineer;
- All others desirous of gaining heightened competence in Fibre Optics System Configuration and Cable Installation.

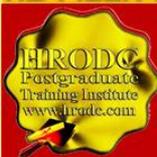
**Classroom-Based Duration and Cost:**

<b>Classroom-Based Duration:</b>	<b>10 Days</b>
<b>Classroom-Based Cost:</b>	<b>£10,000.00 Per Delegate</b>

**Online (Video-Enhanced) Duration and Cost**

<b>Online Duration:</b>	<b>20 Days @ 3 Hours Per Day</b>
<b>Online Cost:</b>	<b>£6,700.00 Per Delegate</b>

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 M. RG. C.

## 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:

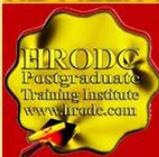
- **Our Branded Leather Conference Folder;**
- **Our Branded Leather Conference Ring Binder/ Writing Pad;**
- **Our Branded Key Ring/ Chain;**
- **Our Branded Leather Conference (Computer – Phone) Bag – Black or Brown;**
- **Our Branded 8-16 GB USB Flash Memory Drive, with Course Material;**
- **Our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

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**8. Other International Locations, on request.**

**Fibre Optic System Configuration and Cable Installation Course**

**Leading to Diploma – Postgraduate – in Fibre Optics System  
Configuration and Cable Installation, 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: Essentials of Optical Components**

- Direct and indirect semiconductors;
- Spontaneous emission;
- Stimulated emission;
- Light Emitting Diodes (LED);
- Laser Diodes (LD);
- Single frequency semiconductor lasers;
- Photodetectors;
- PN-junction photodiodes;
- Responsivity and bandwidth;
- Optical fibers;
- Reflection;
- Refraction;
- Optical amplifiers;
- Semiconductor optical amplifiers;
- Optical modulators.

## Part 2: Optical Fibre Configuration

- Single-mode and multimode optical fibres;
- Fibre design issues;
- Fibre manufacturing methods;
- Specification of the optical fibres characteristics;
- Fibre attributes:
  - Core characteristics;
  - Mode field characteristics.
- Effective Area of Optical Fibres ( $A_{eff}$ );
- Cladding characteristics;
- Cut-off wavelength;
- Numerical aperture;
- Macrobending loss;
- Fibre and protective materials;
- Proof-stress level;
- Refractive index profile;
- Modal bandwidth;
- Chromatic dispersion;
- Chromatic dispersion definitions;
- Chromatic dispersion coefficient;
- Longitudinal uniformity of chromatic dispersion;
- Cables attributes:
  - Attenuation;
  - Polarization mode dispersion.
- Link attributes;
- Attenuation:
  - Attenuation of a link;
  - Wavelength dependence of attenuation.
- Chromatic dispersion:
  - Chromatic dispersion of a link;
  - Wavelength dependence of chromatic dispersion;

- Differential group delay.
- Non-linear coefficient.

### Part 3: Optical Fibre, Cables and Systems

- Test methods of single-mode optical fibres and cables;
- Optical fibres types specified by ITU-T;
- Multimode optical fibres:
  - A 50/125  $\mu\text{m}$  multimode graded index optical fibre cable.
- Single-mode optical fibres:
  - The ITU-T first single-mode optical fibre and cable;
  - A dispersion-shifted single-mode optical fibre and cable;
  - A cut-off shifted single-mode optical fibre and cable;
  - A non-zero dispersion-shifted single-mode optical fibre and cable;
  - A fibre and cable with non-zero dispersion for wideband optical transport;
  - A bending loss insensitive single mode optical fibre and cable for the access network.

### Part 4: General Characteristics of Optical Cables (1)

- External factors impacting optical;
- Mechanical and environmental effects on the optical fibres;
- Residual fibre strain:
  - Causes;
  - Effects;
  - Constructional considerations.
- Impulsive fibre strain:
  - Causes;
  - Effects;
  - Constructional considerations.
- Fibre macrobending:

- Causes;
- Effects;
- Constructional considerations.
- Fibre microbending:
  - Causes;
  - Effects;
  - Constructional considerations.
- Water and moisture:
  - Causes;
  - Effects;
  - Constructional considerations.
- Hydrogen:
  - Causes;
  - Effects;
  - Constructional considerations.
- Lightning:
  - Causes;
  - Effects;
  - Constructional considerations.
- Nuclear radiation:
  - Causes;
  - Effects;
  - Constructional considerations.
- Induced voltage:
  - Causes;
  - Effects;
  - Constructional considerations.

## Part 5: General Characteristics of Optical Cables (2)

- Biological attack;
- General structure of optical fibre cables;
- Coated optical fibres:
  - Primary coating of fibres;
  - Secondary protection of fibres.
- Fibre identification;
- Optical fibre unit;
- Optical cable core structures:
  - Single unit cables;
  - Multiple unit cables;
  - Protection against moisture.
- Strength members;
- Cable sheath and armour:
  - Cable sheath types
  - Metal/plastic sheath with metallic tapes or metallic layer;
  - Plastic sheath only;
  - Plastic sheath with strength members;
  - Plastic sheath with embedded strength members with a metallic tape;
  - Cable sheath with armour;
  - Sheath with identification.
- Structure of optical fibre cables for specific installations;
- Optical fibre cables for aerial applications:
  - Environmental conditions;
  - Cable construction.
- Marinized terrestrial cables:
  - Mechanical and environmental characteristics;
  - Cable structure.
- Submarine cables:

- Mechanical and environmental characteristics;
- Cable structure.
- Optical fibre cables for sewer duct applications:
  - Environmental conditions;
  - Cable structure.
- Optical fibre cables for multidwelling FTTH indoor applications: riser cable
  - Environmental conditions;
  - Cable structure.
- Cable tests.

## Part 6: Optical Cable Installation (1)

- Cable installation methods:
  - Installation of cables in underground ducts;
  - Route considerations;
  - Cable installation tension prediction for cables pulled into ducts;
  - Cable overload protection methods;
  - Winching equipment and ropes;
  - Guiding systems and cable bending;
  - Cable friction and lubrication;
  - Cable handling methods to maximize installed lengths by pulling;
  - Air-assisted cable installation;
  - Water pumping system;
  - Jointing length allowance.
- Installation of optical cables with the trenchless technique:
  - Trenchless techniques and their applications.
- Installation of optical cables with the mini-trench technique:
  - Traditional mini-trench (10 × 30 cm);
  - The enhanced mini-trench.
- Installation of optical cables with the micro-trench technique:

- Micro-trench preparation and duct/cable laying.
- Installation of aerial cables:
  - Installation methods;
  - Cable protection methods;
  - Winching and guiding systems;
  - Methods to maximize lengths;
  - Jointing length allowance;
  - In-service considerations.

## Part 7: Optical Cable Installation (2)

- Installation of buried cables:
  - Installation methods;
  - Cable guiding and protection;
  - Methods to maximize lengths;
  - Jointing length allowance.
- Installation of cables in tunnels and on bridges;
- Installation of optical fibre ground wire (OPGW) cable;
- Installation of optical cables along railways:
  - Duct installation;
  - Directly buried cable installation;
  - Aerial installation;
  - Cable installation along existing railway poles;
  - Particular cases;
  - Splice points along railways.
- Installation of cables in sewer ducts:
  - Sewer assessment.
- Installation in non-man-accessible sewers;
- Installation in man-accessible sewers;
- Installation of special armoured optical cables into the sewer ducts;

- Guidelines for the selection of the most appropriate installation method;
  - Pressure washing and finishing brush;
  - Safety.
- Installation of marinized and submarine optical cables:
- Survey and route planning;
  - Characteristics of vessels;
  - Installation;
  - Controls after the laying.
- Installation of indoor cables:
- Safety, in-service protection and location;
  - Safety;
  - In-service protection;
  - Location.

## Part 8: Optical Splices, Connectors and Passive Nodes (1)

- Optical fibre splices:
- Splice losses;
  - Fusion splices;
  - Mechanical splices;
  - Splicing procedure steps;
  - Fibre preparation;
  - Splicing.
- Optical connectors:
- Types and configurations:
    - ✚ Fibre types;
    - ✚ Cable types;
    - ✚ Fibre alignment system;
    - ✚ Fibre end face finish;
    - ✚ Coupling mechanism;
    - ✚ Number of jointed fibres.

- Connector performance parameters.
- Passive node elements for fibre optical networks:
  - General requirements for passive node elements;
  - Fibre reconfiguration.
- Application environments;

## Part 9: Optical Splices, Connectors and Passive Nodes (2)

- Optical distribution frames:
  - General characteristics;
  - Applications;
  - Design consideration:
    - ✚ Cable fibre and jumper management;
    - ✚ Connectors management.
  - Climatic considerations;
  - Mechanical considerations.
- Fibre closures and fibre organizers:
  - Optical closures:
    - ✚ Design characteristics of optical closures;
    - ✚ Fibre organizers;
  - Design of the organizer system;
  - Characteristics of fibre organizers;
  - Configurations of optical fibre organizers.
- Passive node elements for maritized and submarine optical cables:
  - Maritized cables:
    - ✚ Fibre splices;
    - ✚ Fibre organizers;
    - ✚ Closures;
    - ✚ Beach closures.
  - Submarine cables:
    - ✚ The submarine repeater housing;

✚ The branching unit.

## Diploma – Postgraduate Short Course, and Postgraduate Diploma Programme, Regulation

### 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 Diploma. A Postgraduate Diploma represents a Programme of Study, leading to an Award bearing that title prefix. We, therefore, refer to our short-studies as 'Courses', while the 'longer-studies', are regarded as Programmes. However, both study-durations are often referred to 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 credits, therefore, accumulate to a Postgraduate Diploma. As is explained, later, in this document, a Postgraduate Diploma is awarded to students and delegates who have achieved the minimum of 360 Credit Hours, within the required level of attainment.

Delegates studying courses of 5-9 days' duration, equivalent to 30-54 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 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.

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## **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 1<sup>st</sup> of each month, with the cut-off date being the 20<sup>th</sup> 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;

Fibre Optic System Configuration and Cable Installation Seminar or Course, Leading to Diploma Postgraduate - in Fibre Optic System Configuration and Cable Installation, Double Credit, 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**

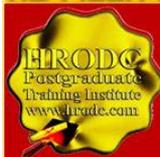
All short courses can accumulate to the required number of Credit-Hours, for the Postgraduate Certificate and Postgraduate Diploma, over a six-year period from first registration and applies to both general and specialist groupings. In this regard, it is important to note that short courses vary in length,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

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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.

Fibre Optic System Configuration and Cable Installation Seminar or Course, Leading to Diploma Postgraduate - in Fibre Optic System Configuration and Cable Installation, Double Credit, 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.

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

**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

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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;**

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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.

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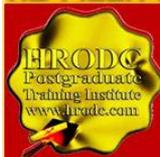
The submission of our application form or otherwise registration by of the submission of a course booking form or e-mail booking request is an attestation of the candidate's subscription to our Policy Terms and Conditions, which are legally binding.

**Prof. Dr. Ronald B. Crawford**  
**Director**

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Fibre Optic System Configuration and Cable Installation Seminar or Course - Page 24 of 24

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