HRODC Postgraduate Training Institute

A Postgraduate-Only Institution

#214

Advanced Electronic Security Engineering Technology: CCTV Design and Installation, CCTV Surveillance, Enhanced Safety and Electronic Access Control Systems

Programme

Leading To:

POSTGRADUATE DIPLOMA IN

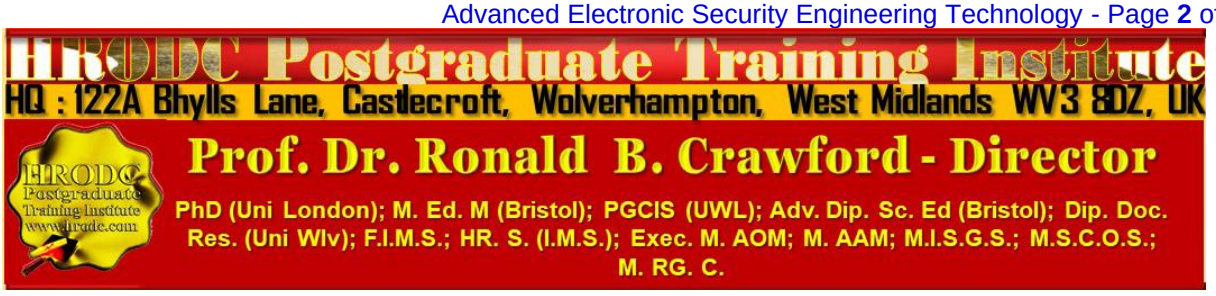
Advanced Electronic Security Engineering: CCTV Design and Installation, Surveillance and Electronic Access Control

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 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 Programme is Designed For:

- Security Managers and Consultants;
- Directors of Security;
- CCTV Operators;
- Risk Management Personnel;
- System Integrators and Installers;
- System Engineers and Designers;
- Government Regulatory Personnel;
- Architects;
- Engineers;
- Business Owners;
- Professionals responsible for security infrastructure systems, site surveys, security strategy presentations, facility security design, or purchasing of security equipment.

Classroom-Based Duration and Cost:	
Classroom-Based Duration:	12 Weeks (5 Days per Week)
Classroom-Based Cost:	£45,000.00 Per Student
Online (Video-Enhanced) Duration and Cost	
Online Duration:	20 Weeks – 3 Hours Per Day, 6 Days Per Week
Online Cost:	£30,150.00 Per Student

Classroom-Based Programme Cost includes:

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

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- 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.**

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Advanced Electronic Security Engineering Technology: CCTV Design and Installation, CCTV Surveillance, Enhanced Safety and Electronic Access Control Systems				
Leading to Postgraduate Diploma in Advanced Electronic Security Engineering: CCTV Design, and Installation, CCTV Surveillance, Enhanced Safety and Electronic Access Control				
Module Number	**Pre-existing Course #**	**Module Title**	**Page #**	**Credit Value**
1	214.M1	Advanced Electronic Security Engineering Technology: CCTV System Design, Camera, Television, Video Processing, Transmission Media, and Networking	7	Quad
2	214.M2	Advanced Electronic Security Engineering Technology: CCTV Surveillance, Risk Management, Security System Integration, and Electronic Circuitry Sensitivities	15	Quad
3	214.M3	Advanced Electronic Security Engineering Technology: Enhanced Electronic Access Control Systems Design, Installation, Maintenance, and Repair	17	Quad

Advanced Electronic Security Engineering Technology: CCTV Design and Installation, CCTV Surveillance, Enhanced Safety and Electronic Access Control Systems, Programme

Leading to Postgraduate a Postgraduate Diploma in Advanced Electronic Security Engineering: CCTV Design, and Installation, CCTV Surveillance, Enhanced Safety and Electronic Access Control

Programme Contents, Concepts and Issues

Module 1
Advanced Electronic Security Engineering Technology: CCTV System Design, Camera, Television, Video Processing, Transmission Media and Networking

M.1 Part 1: The Closed-Circuit Television (CCTV) Industry

- Role of CCTV;
- The CCTV Industry.

M.1 Part 2: SI Units of Measurement

- The Basic Units;
- Derived Units;
- Metric Prefixes.

M.1 Part 3: Light and Television

- Development ;
- Light and the Human Eye;
- Light Units;
- Object Illumination in CCTV;
- Light onto an Imaging Device;
- Colors in Television;
- Color Temperatures and Light Sources;
- Eye Persistence.

M.1 Part 4: Optics in CCTV

- Refraction;
- Lenses as Optical Elements;
- Geometrical Construction of Images;
- Aspherical Lenses;
- CTF and MTF;
- F and T Numbers;
- Depth of Field;
- Neutral Density (ND) Filters;
- Manual, Auto, and Motorized Iris Lenses;
- Video- And DC-Driven Auto Iris Lenses;
- Auto Iris Lens Electronics;
- Image and Lens Formats in CCTV;
- Angles of View and How to Determine Them;

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- Fixed Focal Length Lenses;
- Zoom Lenses;
- C- And CS-Mount and Back-Focus;
- Back-Focus Adjustment;
- Optical Accessories in CCTV.

M.1 Part 5: Television Systems

- Development of Television Systems;
- Basics of Television;
- Video Signal and Its Spectrum;
- Color Video Signal;
- Resolution;
- Instruments Commonly Used in TV;
- Oscilloscope;
- Spectrum Analyzer;
- Vectorscope;
- International Television Systems;
- HDTV.

M.1 Part 6: CCTV Camera

- General Information about Camera;
- Tube Camera;
- CCD Camera;
- Sensitivity and Resolution of the CCD Chips;
- Types of Charge Transfer in CCDs;
- Pulses Used In CCD for Transferring Charges;
- CCD Chip as a Sampler;
- Correlated Double Sampling (CDS);
- Camera Specifications and Their Meanings;

- Sensitivity;
- Minimum Illumination;
- Camera Resolution;
- Signal/Noise Ratio (S/N);
- Dynamic Range of a CCD Chip;
- Color CCD Cameras;
- White Balance;
- CMOS Technology;
- Special Low-Light Intensified Camera;
- Camera Power Supplies and Copper Conductors;
- V-Phase Adjustment;
- Camera Checklist.

M.1 Part 7: CCTV Monitor

- Concept;
- Monitor Sizes;
- Monitor Adjustments;
- Impedance Switch;
- Viewing Conditions;
- Gamma;
- LCD Monitors;
- Projectors and Projection Monitors;
- Plasma Display Monitors;
- Field Emission Technology Displays.

M.1 Part 8: Video Processing Equipment

- Analog Switching Equipment:
  - Video Sequential Switchers;
  - Synchronization;
  - Video Matrix Switchers (VMSs).
- Switching and Processing Equipment:

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- Quad Compressors;
- Multiplexers (MUX);
- Recording Time Delays;
- Simplex and Duplex Multiplexers;
- Video Motion Detectors (VMDs);
- Framestores;
- Video Printers.

M.1 Part 9: Analog Video Recorders

- Development of Analog Video Recorders;
- VCR Concepts Before;
- The Video Home System (VHS) Concept;
- Super VHS, Y/C, and Comb Filtering:
  - Consumer VCRs for CCTV Purposes.
- Time-Lapse VCRs (TL VCRs).

M.1 Part 10: Digital Video

- Importance of Digital Video;
- Digital Video Recorders (DVRs);
- The Various Standards:
  - ITU-601: Merging the NTSC and PAL;
  - The Resolution of ITU-601 Digitized Video.
- The Need for Compression;
- Types of Compressions;
- DCT as A Basis;
- The Variety of Compression Standards in CCTV;
- Pixels and Resolution:
  - Dots per Inch (DPI);
  - Psychophysiology of Viewing Details.
- Recognizing Faces and License Plates in CCTV;

- Operating Systems and Hard Disks;
- Hard Disk Drives:
  - The Different File Systems.

M.1 Part 11: Transmission Media

- Coaxial Cables:
  - The Concept;
  - Noise and Electromagnetic Interference;
  - Characteristic Impedance;
  - BNC Connectors;
  - Coaxial Cables and Proper BNC Termination;
  - Installation Techniques;
  - Time Domain Reflectometer (TDR).
- Twisted Pair Video Transmission;
- Microwave Links;
- RF Wireless (Open Air) Video Transmission;
- Infrared Wireless (Open Air) Video Transmission;
- Transmission of Images over Telephone Lines;
- Cellular Network;
- Fiber Optics:
  - Importance of Fibre;
  - Concept of Fibre;
  - Types of Optical Fibres;
  - Numerical Aperture;
  - Light Levels in Fibre Optics;
  - Light Sources in Fibre Optics Transmission;
  - Light Detectors in Fibre Optics;
  - Frequencies in Fibre Optics Transmission;
  - Passive Components;
  - Fusion Splicing;

- Mechanical Splicing;
- Fibre Optics Multiplexers.

- Fibre Optics Cables';
- Installation Techniques';
- Fibre Optic Link Analysis:
  - Optical Time Domain Reflectometer (OTDR).

M.1 Part 12: CCTV: Networking

- The Information Technology Era;
- Computers and Networks;
- LAN and WAN;
- Ethernet;
- The Main Ethernet Categories;
- Ethernet over Coax and UTP Cables;
- Fiber Optics Network Cabling;
- Network Concepts and Components;
- Networking Software:
  - The Internet Protocols;
  - The OSI Seven-Layer Model of Networking.
- IP Addresses;
- Domain Name Systems (DNS);
- Dynamic Host Configuration Protocol (DHCP);
- Domain Name Systems (DNS) and Dynamic Host Configuration Protocol(DHCP);
- Networking Hardware:
  - Hubs, Bridges, and Switches;
  - Routers for Logical Segmentation;
  - Network Ports;
  - A Network Analogy Example.
- Wireless LAN:
  - 802.11?
- Bluetooth;

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- Putting a Network System Together.

M.1 Part 13: Auxiliary Equipment in CCTV

- Pan and Tilt Heads;
- Pan and Tilt Domes;
- Preset Positioning P/T Heads;
- PTZ Site Drivers;
- Camera Housings;
- Lighting in CCTV;
- Infrared Lights;
- Ground Loop Correctors;
- Lightning Protection;
- In-Line Video Amplifiers/Equalizers;
- Video Distribution Amplifiers (VDAs).

M.1 Part 14: CCTV System Design

- The Customer's Requirements;
- Site Inspections;
- Designing and Quoting a CCTV System;
- Installation Considerations;
- Drawings;
- Commissioning;
- Training and Manuals;
- Handing Over;
- Preventative Maintenance.

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M.1 Part 15: Video Testing

- The CCTV Labs Test Chart;
- Before You Start Testing:
  - High-Quality Lens;
  - High-Quality Monitor.
- Setup Procedure;
- What You Can Test:
  - Resolution;
  - Other Important Measurements;
  - Getting the Best Possible Picture;
  - Measurement of the Digital Image Compression Quality.
- The CCTV Labs Test Pattern Generator TPG-8:
  - How You Could Use the TPG-8;
  - TPG-8 Buttons Description;
  - Connections;
  - The TPG-8 Navigator Software;
  - Instruments Used With the TPG-8;
  - Test Patterns and How to Create Them;
  - Specifications.

Module 2
Advanced Electronic Security Engineering Technology: CCTV Surveillance, Risk Management, Security System Integration, and Electronic Circuitry Sensitiveness

- Video and the Security Plan;
- Principles of Video Technology;
- Lightning: Natural and Artificial;
- Lenses and Optics;
- Analog, Digital and Internet Cameras;

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- Analog Video, Voice and Control Signal Transmission;
- Analog Monitors and Digital Displays;
- Analog, Digital Video Recorders;
- Hard Copy Video Printers;
- Video Switchers;
- Quads and Multiplexers;
- Video Motion Detectors;
- Dome Cameras;
- Integrated Cameras, Camera Housings and Accessories;
- Electronic Video Image Splitting, Reversal and Annotation;
- Camera Plan/Tilt Mechanics;
- Covert Video Surveillance;
- Low-Light-Level Cameras, Thermal Infrared Imagers;
- Control Room/Console Design;
- Rapid Deployment Video System;
- Applications and Solutions;
- System Power Sources;
- Video Security Systems Integration;
- Video System Test Equipment;
- Video Check List;
- Education, Standards, Certification;
- New Video Technology.

Module 3
Advanced Electronic Security Engineering Technology: Enhanced Electronic Access Control System Design, Installation, Commissioning, Management, Maintenance and Repair

M.3 Part 1: Conceptualising Security and Access Control

- Risk;
- Risk Management;
- Countermeasures;
- Access Control System Principles.

M.3 Part 2: How Electronic Access Control Systems Work

- Development of Access Control Systems;
- Concepts;
- Authorized Users, User Groups, Access Zones, Schedules and Access Groups;
- Portals;
- Credentials and Credential Readers;
- Credential Authorisation;
- Locks, Alarms, and Exit Devices;
- Data, Data Retention, and Reports.

M.3 Part 3: Access Control Credentials and Credential Readers

- Access Credentialing Concepts;
- Keypads;
- Access Cards, Key Fobs, and Card Readers;
- Biometric Readers.

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M.3 Part 4: Access Controlled Portals

- Portal Passage Concepts;
- Pedestrian Portal Types;
- Vehicle Portals.

M.3 Part 5: Life Safety and Exit Devices

- Life Safety;
- Security vs. Life Safety;
- National and Local Access Control Codes and Standards;
- Life Safety and Locks;
- Life Safety and Exit Devices;
- Life Safety and Fire Alarm System Interfaces.

M.3 Part 6: Door Types and Door Frames

- Doors and Security Concepts;
- Standard Single-Leaf and Double-Leaf Swinging Doors;
- Door Frames and Mountings;
- Overhead Doors;
- Revolving Doors;
- Sliding Panel Doors;
- Bi-Fold and 4-Fold Doors.

M.3 Part 7: Doors and Fire Ratings

- Defining Fire Ratings;
- Fire Penetration Ratings;
- Door Assembly Ratings;
- Fire Door Frames and Hardware;
- Pairs of Doors;
- “Path of Egress” Doors;

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- Electrified Locks and Fire Ratings;
- Additional References.

M.3 Part 8: Electrified Locks

- Importance of Electric Locks;
- Types of Electrified Locks;
- How Electrified Locks Functions;
- Lock Power Supplies;
- Electrified Lock Wiring Considerations;
- Electrified Lock Controls;
- Unrecommended Types of Locks.

M.3 Part 9: Free Egress Electrified Locks

- Types of Free Egress Locks;
- Electrified Mortise Locks;
- Electrified “Panic” Hardware;
- Electric Strikes;
- Electrified Cylinder Locks;
- Self-Contained Access Control Locks.

M.3 Part 10: Magnetic Locks

- Standard Magnetic Locks;
- Magnetic Shear Locks;
- Magnetic Gate Locks;
- Cautions about Magnetic Locks.

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M.3 Part 11: Electrified Dead-Bolt Locks

- Surface-Mounted Electrified Dead-Bolt Locks;
- Concealed Direct-Throw Mortise Dead-Bolt Lock;
- Dead-Bolt Equipped Electrified Mortise Lock;
- Top-Latch Release Bolt;
- Electrified Dead-Bolt Gate Locks.

M.3 Part 12: Specialty Electrified Locks

- Electrified Dead-Bolt-Equipped Panic Hardware;
- Securitech Locks;
- Delayed Egress Locks;
- Hi-Tower Locks;
- CRL-Blumcraft Panic Hardware.

M.3 Part 13: The Right Lockset for a Door

- Standard Application Rules;
- How to Select the Right Lock for Any Door.

M.3 Part 14: Specialised Portal Control Devices and Applications

- Specialized Portals for Pedestrians;
- Specialized Portals for Vehicles.

M.3 Part 15: Access Control Panels and Networks

- Access Control Panel Attributes and Components;
- Communications Board;
- Access Control Panel Form Factors;

- Access Control Panel Functions;
- Access Control Panel Locations;
- Local and Network Cabling;
- Redundancy and Reliability Factors.

M.3 Part 16: Access Control System Servers and Workstations

- Server/Workstation Functions;
- Decision Processes;
- System Scalability;
- Access Control System Networking;
- Legacy Access Control Systems.

M.3 Part 17: Security System Integration

- Importance of Integrating Security Systems;
- Integration Concepts;
- Benefits of System Integration;
- Types of Integration;
- Serial Data Integration;
- TCP/IP Integration;
- Database Integration;
- System Integration Examples.

M.3 Part 18: Integrated Alarm System Devices

- Alarm;
- Types of Alarm Sensors;
- Alarm Detection.

M.3 Part 19: Security Systems

- Photo ID Systems;
- Visitor Management Systems;
- Security Video;
- Security Communications;
- Security Architecture Models for Campuses and Remote Sites;
- Command, Control, and Communications Consoles.

M.3 Part 20: Related Building/Facility Systems and REAPS Systems

- Building/Facility Systems;
- Controlling and Automating Building Functions;
- REAPS Systems.

M.3 Part 21: Cabling

- Cable Types;
- Conduit or No Conduit;
- Cable Handling;
- Cable Dressing Practices;
- Cable Documentation.

M.3 Part 22: Environmental Considerations

- Electronic Circuitry Sensitivities;
- Environmental Factors in System Failures.

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M.3 Part 23: Access Control Design

- Design vs. Installation vs. Maintenance;
- The Importance of Designing to Risk;
- The Importance of Designing for the Future;
- Design Elements;
- Designing Robust Portals;
- Application Concepts;
- Implementing Design Ideas to Paper;
- System Installation;
- System Commissioning;
- Completing Punch List Items;
- System Acceptance.

M.3 Part 24: Access Control System Installation and Commissioning

- Jobsite Considerations;
- Conduit versus Open Cabling;
- Device Installation Considerations;
- The Importance of Documentation;
- Device Setup and Initial Testing;
- Alarm and Reader Device Database Setup;
- User Access Database Setup;
- Access Schedules and Areas.

M.3 Part 25: System Management, Maintenance, and Repair

- Management;
- Maintenance and Repair.

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.

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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.

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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;

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- 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.

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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 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

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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 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;**

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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;**

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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.

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