

HRODC Postgraduate Training Institute



A Postgraduate-Only Institution



214.M3

**Advanced Electronic Security Engineering Technology:
Enhanced Electronic Access Control Systems Design,
Installation, Maintenance and Repair**

Course or Seminar

Leading To:

**DIPLOMA - POSTGRADUATE IN
Advanced Electronic Security Engineering Technology:
Enhanced Electronic Access Control Systems Design,
Installation, Maintenance and Repair (Quad Credit)**

Accumulating to

POSTGRADUATE DIPLOMA

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A Division of HRODC Ltd. UK Reg. No. 6088763. V.A.T. Reg. No. 8958 765 38
Prof. Dr. R.B. Crawford - Director HRODC Postgraduate Training Institute
PhD (London), MEd.M. (Bath), Adv. Dip. Ed. (Bristol), PGCE (TVU), ITC (UWI), MAAM, MAOM, LESAN, M8COS, M8GS, Visiting Prof. P.U.P.

Registered with the UK Register of Learning Providers
(UKRLP), Department for Business, Innovation and
Skills (BIS), formerly Department of Innovation,
Universities and Skills (DIUS).



UKRLP Registration No. 10019585
UKRLP Verification: <http://www.ukrlp.co.uk>
Postgraduate Full-Time and Short Courses
London, UK & International Locations

HRODC Postgraduate Training Institute - UKRLP Registration



HRODC Postgraduate Training Institute is Registered with the UK Register of Learning Providers (UKRLP), of the Department for Business, Innovation and Skills (BIS), formerly Department of Innovation, Universities and Skills (DIUS). Its Registration Number is 10019585 and can be verified at <http://www.ukrlp.co.uk/>



HRODC Postgraduate Training Institute is a Division of Human Resource and Organisational Development Consultancy (HRODC) Limited. It is Registered in England UK, with Registration #6088763 and V.A.T. Registration No. 895876538

Course Co-ordinator:

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

- PhD (University of London);
- MEd. M. (University of Bath);
- Adv. Dip. Ed. (University of Bristol);
- PGCIS (Thames Valley University);
- ITC (UWI);
- Member of the Standing Council of Organisational Symbolism (MSCOS);
- Member of the Asian Academy of Management (MAAM);
- Member of the International Society of Gesture Studies (MISGS);
- Member of the Academy of Management (MAOM);
- LESAN;
- Professor, HRODC Postgraduate Training Institute;
- Visiting Professor, Polytechnic University of the Philippines (PUP).

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Postgraduate Full-Time and Short Courses
London, UK & International Locations

For Whom This Course is Designed

This Course 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.

Duration: 20 Days

Cost: £20,000.00 Per Delegate

Please Note:

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

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:

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

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

Location: Central London and International Locations

Advanced Electronic Security Engineering Technology: Enhanced Electronic Access Control Systems Design, Installation, Maintenance and Repair

Leading to Diploma-Postgraduate in Advanced Electronic Security Engineering Technology: Enhanced Electronic Access Control Systems Design, Installation, Maintenance and Repair (Quad Credit)

Course Contents, Concepts and Issues

Part 1: Conceptualising Security and Access Control

- Risk;
- Risk Management;

- Countermeasures;
- Access Control System Principles.

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.

Part 3: Access Control Credentials and Credential Readers

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

Part 4: Access Controlled Portals

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

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.

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.

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;
- Electrified Locks and Fire Ratings;
- Additional References.

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.

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.

Part 10: Magnetic Locks

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

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.

Part 12: Specialty Electrified Locks

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

Part 13: The Right Lockset for a Door

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

Part 14: Specialised Portal Control Devices and Applications

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

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.

Part 16: Access Control System Servers and Workstations

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

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.

Part 18: Integrated Alarm System Devices

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

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.

Part 20: Related Building/Facility Systems and REAPS Systems

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

Part 21: Cabling

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

Part 22: Environmental Considerations

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

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.

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.

Part 25: System Management, Maintenance, and Repair

- Management;
- Maintenance and Repair.

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 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, or Postgraduate Diploma, as appropriate.

In the case of Diploma – Postgraduate, a minimum of 70% overall pass is expected. In order to receive the Award of 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 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 and Postgraduate Diploma Application Requirements

Applicants for Diploma – Postgraduate – 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 for Postgraduate Diploma Courses

There are three delivery formats for Postgraduate Diploma Courses, as follows:

1. Intensive Full-time (Classroom-Based) Mode (3 months). This duration is based on six hours' lecturer-contact per day, five days (30 hours) per week;
2. Full-time (Classroom-Based) Mode (6 month). This duration is based on two and a half days' lecturer-contact, equivalent to fifteen hours, per week;
3. Video-Enhanced On-Line Mode. This mode is achieved in twenty (20) weeks, 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, is 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 approximately 60 Specialist Postgraduate Diploma Programmes. Accumulate short courses, over a 6-year period, towards a 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 the classroom-based course;
- 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.

20-Week Video-Enhanced Online Postgraduate Diploma

You might study an Online Postgraduate Diploma Course, in 20 weeks, in the comfort of your homes, through HRODC Postgraduate Training Institute's Video-Enhanced Online Delivery. We will deliver the 360 hours 'Direct-Lecturer-Contact', as is required by our Institute's Regulation, within the stipulated 20 weeks. We aim to fit the tuition around your work and leisure, thereby enhancing your effective 'Life-Style Balance', at times convenient to you and your appointed tutor.

Cumulative Postgraduate Diploma Courses

All short courses can accumulate to the required number of hours, for the Postgraduate Diploma, over a six-year period from the 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 two credits be attempted per year. This will ensure that the required number of credit hours for the Postgraduate diploma is achieved within the six-year time frame.

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	Diploma – Postgraduate (6-Credit)
7-Credit	210-234	Diploma – Postgraduate (7-Credit)
8-Credit	240-264	Diploma – Postgraduate (8-Credit)
9-Credit	270-294	Diploma – Postgraduate (9-Credit)
10-Credit	300-324	Diploma – Postgraduate (10-Credit)
11-Credit	330-354	Diploma – Postgraduate (11-Credit)
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		

Accumulated Postgraduate Diploma Award Titles

All Specialist 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 Diploma in Aviation Management;**

3. **Postgraduate Diploma in Business Communication;**
4. **Postgraduate Diploma in Corporate Governance;**
5. **Postgraduate Diploma in Costing and Budgeting;**
6. **Postgraduate Diploma in Client or Customer Relations;**
7. **Postgraduate Diploma in Engineering and Technical Skills;**
8. **Postgraduate Diploma in Events Management;**
9. **Postgraduate Diploma in Health and Safety Management;**
10. **Postgraduate Diploma in Health Care Management;**
11. **Postgraduate Diploma in Human Resource Development;**
12. **Postgraduate Diploma in Human Resource Management;**
13. **Postgraduate Diploma in Information and Communications Technology (ICT);**
14. **Postgraduate Diploma in Leadership Skills;**
15. **Postgraduate Diploma in Law – International and National;**
16. **Postgraduate Diploma in Logistics and Supply Chain Management;**
17. **Postgraduate Diploma in Management Skills;**
18. **Postgraduate Diploma in Maritime Studies;**
19. **Postgraduate Diploma in Oil and Gas Operation;**
20. **Postgraduate Diploma in Oil and Gas Accounting;**
21. **Postgraduate Diploma in Politics and Economic Development;**
22. **Postgraduate Diploma in Procurement Management;**
23. **Postgraduate Diploma in Project Management;**
24. **Postgraduate Diploma in Public Administration;**
25. **Postgraduate Diploma in Quality Management;**
26. **Postgraduate Diploma in Real Estate Management;**
27. **Postgraduate Diploma in Research Methods;**
28. **Postgraduate Diploma in Risk Management;**
29. **Postgraduate Diploma in Sales and Marketing;**
30. **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_Extenuating_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