HRODC Postgraduate Training Institute

A Postgraduate-Only Institution

214.M1.1

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

Course or Seminar

Leading To:

DIPLOMA – POSTGRADUATE IN

Advanced Electronic Security Engineering: CCTV System Design, Transmission and Networking (1) (Double Credit)

Accumulating to

POSTGRADUATE DIPLOMA

Progressing To A Masters Degree –

MBA – MSc - MA

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

- Doctor of Philosophy {(PhD) (University of London)};
- MEd. Management (University of Bath);
- Advanced Dip. 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 Academy of Management (MAoM), within the following Management Disciplines:
  - 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.
- 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);
- Life Member of Malaysian Institute of Human Resource Management (LMIHRM);
- Member of ResearchGate Community;
- Member of Convocation, University of London;
- Professor HRODC Postgraduate Training Institute.

Prof. Crawford was an Academic at:

- University of London (UK);

- London South Bank University (UK);
- University of Greenwich (UK); and
- University of Wolverhampton (UK).

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:10 Days

Cost:£10,000.00Per 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.

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;

- Diploma – Postgraduate –in **Advanced Electronic Security Engineering: CCTV System Design, Transmission and Networking (1) (Double Credit)**; or
- Certificate of Attendance and Participation – if unsuccessful on resit.

HRODC Postgraduate Training Institute's Complimentary Products include:

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

Please see product images, as a separate file - Complimentary Products For Students and Delegates, from HRODC Postgraduate Training Institute.

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

Location: Central London and International Locations

Advanced Electronic Security Engineering Technology: CCTV System Design, Camera, Television, Video Processing, Transmission Media and Networking (1)
Leading to Diploma-Postgraduate in
Advanced Electronic Security Engineering: CCTV System Design, Transmission, and Networking (1)(Double Credit)

Course Contents, Concepts and Issues

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

- Role of CCTV;
- The CCTV Industry.

Part 2: SI Units of Measurement

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

Part 3: Light and Television

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

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;
- Fixed Focal Length Lenses;
- Zoom Lenses;
- C- And CS-Mount and Back-Focus;
- Back-Focus Adjustment;

- Optical Accessories in CCTV.

Part 5: Television Systems

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

Part 6: 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;
- Colour CCD Cameras;
- White Balance;
- CMOS Technology;

- Special Low-Light Intensified Camera;
- Camera Power Supplies and Copper Conductors;
- V-Phase Adjustment;
- Camera Checklist.

Part 7: CCTV Monitor

- Concept;
- Monitor Sizes;
- Monitor Adjustments;
- Impedance Switch;
- Viewing Conditions;
- Gamma;

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.

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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.