

HRODC Postgraduate Training Institute

A Postgraduate-Only Institution

210

***Advanced Automotive Electrical, Electronic, Mechanical,
Transmissions, Engine Control Engineering, and Moredn Vehicle
Controller Area Network (CAN)***

Course or Seminar

Leading To:

DIPLOMA – POSTGRADUATE IN

***Advanced Automotive Electrical, Electronic, Mechanical,
Transmissions, Engine Control Engineering, and Moredn Vehicle
Controller Area Network (CAN)***

Accumulating to

POSTGRADUATE DIPLOMA

Progressing To A Masters Degree –

MBA – MSc - MA

For Whom This Course is designed

This Course is designed for:

- Automotive Electrical Engineering;
- Automotive Electrical Engineers;
- Automotive Engineers;
- Automotive Mechanics;
- Automotive Service Engineers;
- Automotive Technicians;
- Automotive Transmission Engineers;
- Automotive Transmission Technicians;
- Automotive Wiring Engineers;
- Electrical Engineers;
- Mechanical Engineers;
- Modern Motor Vehicle Importers;
- Modern Vehicle Controller Area Network (CAN) Engineers;
- Modern Vehicle Controller Area Network (CAN) Specialists;
- Modern Vehicle Controller Area Network (CAN) Technicians;
- Moto Vehicle Assemblers;
- Moto Vehicle Repairers;
- Motor Vehicle Diagnostic Engineers;
- Motor Vehicle Diagnostic Technicians;
- Motor Vehicle Distribution Managers;
- All others seeking expertise in Advanced Automotive Electrical, Electronic, Mechanical, Transmissions, Engine Control Engineering, and Modern Vehicle Controller Area Network (CAN).

Programme 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)

Duration:

**3 Months Intensive Full-Time (5 Days Per Week) or
6 Months Full-Time (2-2.5 Days Per Week)**

Cost: £90,000.00Per 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 Include:

- Free Continuous snacks throughout the Event Days;
- Free Hot Lunch on Event Days;
- Free City Tour;
- Free Stationery;
- Free On-site Internet Access;
- Double Postgraduate Diploma in Advanced Automotive Electrical, Electronic, Mechanical, Transmissions and Engine Control Diagnostic, Repair and Maintenance Engineering, and Modern Vehicle Controller Area Network (CAN); 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 Programme Material;
6. HRODC Postgraduate Training Institute's **Metal Pen**;
7. HRODC Postgraduate Training Institute's **Polo Shirt**, at Programme Start and End.

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

Course runs from 9:30 to 4:30 pm.

Location: Central London and International Locations

Programme Contents, Concepts and Issues

Module 1 – 5

**Comprehensive Automotive Electrical, Electronic and Mechanical
Diagnostic, Maintenance and Repair
Leading to Postgraduate Diploma in Automotive Electrical, Electronic
And Mechanical Diagnostic, Maintenance and Repair**

Module 1

**Automotive Industry: Technical and Contextual Explorations Part1,
Leading to Diploma Postgraduate in Technical and Conceptual Aspects
of Automotive Industry 1 (Double Credit)**

M1. Part 1: Engine Building

M1. Part 2: Design, Construction, Application of Engine Components

M1. Part 3: Classifying Engine and Identifying the Parts

M1. Part 4: Safety Lab Procedures: Avoiding Accidents

M1. Part 5: Automotive Tools

M1. Part 6: Engine Tests and Measurements

M1. Part 7: Electrical System Fundamentals

M1. Part 8: Ignition System

M1. Part 9: Fuel Injection Systems

M1. Part 10: Fuel Supply and Carburettors.

M1. Part 11: Cooling Systems

M1. Part 12: Lubrication System

M1. Part 13: Exhaust Systems

M1. Part 14: Emission Systems

Module 2

Automotive Industry: Technical and Contextual Explorations Part 2, Leading to Diploma Postgraduate in Technical and Contextual Aspects Of Automotive Industry 2 (Double Credit)

M2 Part: Computer System

M2. Part 2: Charging and Starting Systems

M2. Part 3: Chassis Electrical (1)

M2. Part 4: Chassis Electrical (2)

M2. Part 5: Axles and Drives

M2. Part 6: Brakes (1)

M2. Part 7: Brakes (2)

M2. Part 8: Suspension Systems

M2. Part 9: Steering Systems

M2. Part 10: Wheels and Tires

M2. Part 11: Wheel Alignment

M2. Part 12: Air Conditioning and Heating (1)

M2. Part 13: Air Conditioning and Heating (2)

Module 3

Advanced Mechanical Engineering: Automotive Fault Diagnosis and Repair,

Leading to Automotive Fault Diagnosis and Repair (Quad Credit)

M3. Part 1: Overview

M3. Part 2: Techniques in Diagnosing (1)

M3. Part 3: Techniques in Diagnosis (2)

M3. Part 4: Automotive Tools and Equipment

M3. Part 5: Using Diagnosing Sensors, Actuators and Oscilloscope

M3. Part 6: Managing On – Board Diagnostics (OBD) (1)

M3. Part 7: Managing On-Board Diagnostics (OBD) (2)

M3. Part 8: Engine Systems (1)

M3.Part 9: Engine System (2)

M3. Part 10: Engine System (3)

M3.Part 11: Engine System (4)

M3. Part 12: Engine System (5)

M3. Part 13: Automative Chassis System (1)

M3. Part 14: Automotive Chassis Systems (2)

M3. Part 15: Automotive Chassis Systems (3)

M3.Part 16: Working with Electrical Systems (1)

M3.Part 17: Working with Electrical Systems (2)

M3. Part 18: Working with Electrical Systems (3)

M3.Part 19: Automatic and Manual Gear Transmission Systems

Module 4

Automotive Electrical Wiring, Leading to Diploma – Postgraduate in

Automotive Electrical Wiring (Double Credit)

M4 – Part 1: Automotive Electrical Principles and Circuits
M4. Part 2: Tools for Automotive Wiring
M4. Part 3: Essentials of Automotive Wiring
M4. Part 4: Power Accessories and the Charging System
M4. Part 5: Equipment Wiring and Component Upgrade
M4. Part 6: Troubleshooting.
M4. Part 7: Installation and Interface
M4. Part 8: Developing Wiring Harness

Module 5

Automotive Repair and Maintenance, Leading to Diploma-Postgraduate In Automotive Repair and Maintenance (Double Credit)

M5. Part 1: The Fuel System
M5. Part 2: Automotive Engine
M5. Part 3: Automotive Electrical System
M5. Part 4: The Cooling System
M5. Part 5: The Driver train
M5. Part 6: Automotive Suspension and Steering
M5. Part 7: Tyres and Wheels
M5. Part 8: Brakes
M5. Part 9: The Exhaust System

Module 6

Automotive Computerised Engine Controls, Leading to Diploma-Postgraduate in Automotive Computerised Engine Controls (Quad Credit)

M6. Part1- Understanding Electricity and Electronics
M6. Part 2 – Computers in Cars
M6. Part 3 – Components for Computerised Engine Controls Systems
M6. Part 4 – Operating Principles for Computerised Engine Control
System
M6. Part 5 – Concepts of Diagnostics
M6. Part – Equipment Used in Diagnostic Work

M6.Part 7 – Exhausted Gas Analysis

M6.Part – Conceptualising OBD II

M6. Part 9 – Principles of Multiplexing

M6. Part 10 – General Motors' Electronic Fuel Injection

M6. Part 11 – General Motors and Port Fuel Injection

M6. Part 12 – Advanced General Motors Engine Controls

M6. Part 13 – Ford's Electronic Engine Control IV (EEC IV)

M6. Part 14 – Ford's Electronic Engine Control V (EE V)

M6. Part 15 – Chrysler Corporation Fuel Injection Systems

M6. Part 16 – European (Bosch) Engine Control Systems

M6. Part 17 – Asian Computer Control Systems

M6. Part 18 – Alternative Power Sources

M6. Part 19 – Approach to Diagnostics

Module 7

Advanced Automotive Transmissions, Leading to Diploma Postgraduate in

Advanced Automotive Transmissions (6 – Credit)

M7. Part 1 – Evolution of Automotive Transmissions

M7. Part 2 – Traffic – Vehicle – Transmission System

M7. Part 3 – The Power Flow

M7. Part 4 – Power Conversion: Selecting the Ratios.

M7. Part 5 – Matching Engine and Transmission

M7. Part 6 - Vehicle Transmission Systems: Basic Design Principles

M7. Part 7 – Design of Gearwheel Transmissions for Vehicles

M7. Part 8 – Specification and Design of Shafts

M7. Part 9 – Gear- Shifting Mechanics

M7. Part 10- Moving-Off Elements

M7. Part 11 – Design and Configuration of Further Design Elements

M7. Part 12 – Typical Designs of Vehicle Transmissions

M7. Part 13 – Electronic Transmission Control

M7. Part 14 – Computer-Aided Transmission Developments

M7. Part 15 – The Automotive Transmission Development Process

M7. Part 16 – Transmission Manufacturing Technology

M7. Part 17 – Reliability and Testing of Automotive Transmissions

Module 8
Modern Vehicle Controller Are Network (CAN), Leading to Diploma
Postgraduate in Modern Vehicle Controller Are Network (CAN) (Double Credit)

M8. Part 1 – Automotive Communication Systems or Networks

M8. Part 2 – Protocols

M8. Part 3 – Networking Essentials

M8. Part 4 – Carrier Sense Multiple Access or CSMA

M8. Part 5 – Different Communication Network

Service Contract, incorporating Terms and Conditions

Click, or copy and paste the URL, below, into your Web Browser, to view our Service Contract, incorporating Terms and Conditions.

https://www.hrodc.com/Service_Contract_Terms_and_Conditions_Service_Details_Delivery_Point_Period_Cancellations_Extinuating_Circumstances_Payment_Protocol_Location.htm

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

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