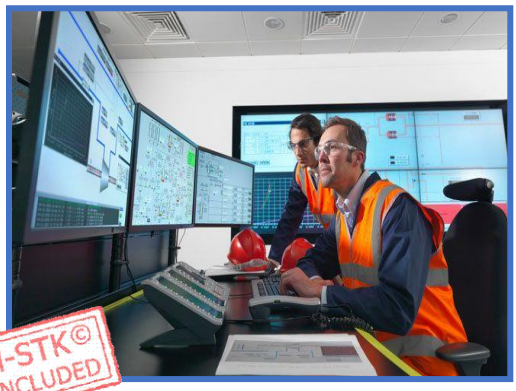
COURSE OVERVIEW IE0932
Honeywell EXPERION PKS Fundamentals

Course Title
Honeywell EXPERION PKS Fundamentals

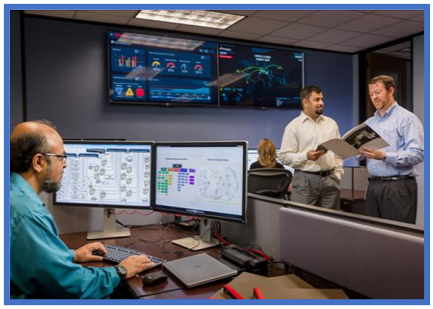


Course Date/Venue
Session 1: July 27-31, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
Session 2: November 24-28, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
IE0932

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description



This hands-on, highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

The course presents the basic concepts and strategies needed to develop guidelines for effective and consistent planning of the system. It includes extensive hands-on lab exercises where participants will build and configure a Control Execution Environment applicable to the C200 and C300.

This course is designed to provide participants with a detailed and up-to-date overview of experion PKS. It covers the control strategies in the control execution environment that can be applied to the C200 (Chassis and PMIO), C300 (Chassis, PMIO, and Series C) and the ACE; the C200 and C300 controllers and CEE function blocks including the selection of appropriate I/O, redundancy and communications; the C200 Series A and C300 Series C IO; the time server and C200 and C300 control module configuration; the configuration of data acquisition, regulatory control and logic; the MasterLogic PLC Experion integration; and the convertion of a redundant C300 controller to a non-redundant controller.

During this interactive course, participants will learn the redundancy configuration restrictions; the import/export C300 controller configuration; the MATH and Auxiliary function block configuration; the C200 and C300 sequential control module configuration including the use of steps and transitions to implement process sequences; the Experion standard station displays, monitoring PLC status from experion displays and verification of data exchange between PLC and Experion; and the PMIO in C200 and C300 control strategies.

Course Objectives

Upon the successful completion of this course, each participant will be able to:

- Apply and gain a fundamental knowledge on Experion PKS including control execution environment controller & ACE implementation
- Build control strategies in the control execution environment that can be applied to the C200 (Chassis and PMIO), C300 (Chassis, PMIO, and Series C) and the ACE
- Plan the C200 and C300 controllers and CEE function blocks including the selection of appropriate I/O, redundancy and communications
- Configure C200 Series A and C300 Series C IO and demonstrate C300 interface to C200 controllers and controlnet
- Specify the time server and illustrate C200 and C300 control module configuration including the configuration of data acquisition, regulatory control and logic
- Configure MasterLogic PLC Experion integration and convert a redundant C300 controller to a non-redundant controller
- Discuss redundancy configuration restrictions and describe import/export C300 controller configuration
- Perform checkpoint save and restore and demonstrate MATH and Auxiliary function block configuration
- Illustrate C200 and C300 sequential control module configuration including the use of steps and transitions to implement process sequences
- Use Experion standard station displays, monitor PLC status from experion displays and verify data exchange between PLC and Experion
- Use PMIO in C200 and C300 control strategies

Who Should Attend

This course is intended for Experion PKS system implementers, experion system and application engineer.

Course Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations:-

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Dr. Ahmed El-Sayed, PhD, MSc, BSc, is a **Senior Electrical & Instrumentation Engineer** with **35 years** of extensive experience within the **Oil**, **Gas**, **Power**, **Petroleum**, **Petrochemical** and **Utilities** industries. His experience widely covers in the areas of Electrical Transient Analyzer Program (**ETAP**), Advanced Distributed Control System (**DCS**), **DCS** Operation & Configuration, **DCS** Troubleshooting, **DCS Yokogawa** ProSafe-RS Safety Instrumented System, **DCS Yokogawa** Centum VP, **DCS Emerson** DeltaV, **DCS GE Mark VI**, Programable Logic Controller (**PLC**), Supervisory Control & Data Acquisition (**SCADA**) Systems, **Process Control**, **Control Systems & Data Communications**, **Instrumentation**, **Automation**, **Valve Tuning**, Safety Instrumented Systems (**SIS**), Safety Integrity Level (**SIL**), Emergency Shutdown (**ESD**), **Telemetry** Systems, **Boiler Control & Instrumentation**, Advanced Process Control (**APC**) Technology, Practical **Fiber-Optics** Technology, **Compressor** Control & Protection, **GE Gas Turbines**, **Alarm** Management Systems, **Engine** Management System, **Fieldbus** Systems, **NEC** (National Electrical Code), **NESC** (National Electrical Safety Code), **Electrical Safety**, **Electrical Hazards** Assessment, **Electrical Equipment**, Electrical Transient Analysis Program (**ETAP**), Power **Quality**, Power **Network**, Power **Distribution**, **Distribution Systems**, **Power Systems Control**, **Power Systems Security**, Power **Electronics**, **Power System** Harmonics, **Power System** Planning, Control & Stability, **Power Flow** Analysis, **Smart Grid & Renewable** Integration, **Power System Protection & Relaying**, Economic Dispatch & Grid Stability Constraints in Power Plants, Electrical Demand Side Management (DSM), Electrical **Substations**, **Substation Automation** Systems & Application (IEC 61850), **Distribution Network** System Design, **Distribution Network Load**, Electrical **Distribution** Systems, **Load Forecasting** & System Upgrade (Distribution), **Overhead Power Line** Maintenance & Patrolling, High Voltage **Switching** Operations, Industrial **UPS Systems & Battery** Power Supplies, Electric **Motors & Variable Speed Drives**, **Generator** Maintenance & Troubleshooting, **Generator** Excitation Systems & AVR, **Transformer** Maintenance & Testing, Lock-Out & Tag-Out (**LOTO**), Confined Workspaces and **Earthing & Grounding**, He is currently the **Systems Control Manager** of **Siemens** where he is in-charge of Security & Control of Power **Transmission Distribution** & **High Voltage** Systems and he further takes part in the Load Records Evaluation & Transmission Services Pricing.

During his career life, Dr. Ahmed has been actively involved in different Power System Activities including Roles in Power System Planning, Analysis, Engineering, **HV Substation** Design, Electrical Service Pricing, Evaluations & Tariffs, Project Management, Teaching and Consulting. His vast industrial experience was honed greatly when he joined many International and National Companies such as **Siemens**, **Electricity Authority**, Egyptian Electricity Holding, Egyptian Refining Company (ERC), **GASCO**, Tahrir Petrochemicals Project, and **ACETO** industries as the **Instrumentation & Electrical Service Project Manager**, **Energy Management Engineer**, **Department Head**, **Assistant Professor**, **Project Coordinator**, **Project Assistant and Managing Board Member** where he focused more on dealing with Technology Transfer, System Integration Process and Improving Localization. He was further greatly involved in manufacturing some of **Power System** and **Control & Instrumentation Components** such as Series of Digital Protection **Relays**, MV **VFD**, **PLC** and **SCADA** System with intelligent features.

Dr. Ahmed has **PhD**, **Master's** & **Bachelor's** degree in **Electrical Engineering** from the **University of Wisconsin Madison**, **USA** and **Ain Shams University**, respectively. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/ Assessor/Trainer** by the **Institute of Leadership and Management** (**ILM**), an active member of IEEE and ISA as well as numerous technical and scientific papers published internationally in the areas of Power Quality, Superconductive Magnetic Energy Storage, SMES role in Power Systems, Power System **Blackout** Analysis, and Intelligent Load Shedding Techniques for preventing Power System Blackouts, HV **Substation Automation** and Power System Stability.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Role of the Major Hardware and Software Components***
0930 – 0945	*Break*
0945 – 1100	***Role of the Major Hardware and Software Components (cont'd)***
1100 – 1230	***How Data Flows Through the C200 and C300 Controllers***
1230 – 1245	*Break*
1245 – 1430	***Create C200 and C300 Controller and CEE Function Blocks***
1430	*Lunch & End of Day One*

Day 2

0730 – 0900	***Planning the C200 and C300 Controllers***
0900 – 0915	*Break*
0915 – 1100	***C300 Interface to C200 Controllers and ControlNet***
1100 – 1230	***Specifying a Time Server***
1230 – 1245	*Break*
1245 – 1430	***Configuring MasterLogic PLC - Experion Integration***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***Selecting Appropriate Components of the C200 and C300 Controllers including Processors, I/O and Communications***
0930 – 0945	*Break*
0945 – 1100	***Convert a Redundant C300 Controller to a Non-Redundant Controller***
1100 – 1215	***Configuring the C200 and C300 Controllers*** *Hardware ● Control Modules, which Incorporate Data Acquisition, Regulatory Control and Logic*

1215 – 1230	*Break*
1230 – 1430	***Configuring the C200 and C300 Controller (cont'd)*** *Sequential Control Modules which are Used to Control Process Sequences, such as Start Up, Shut Down and Batch Operations ● Checkpoint Save and Restore*
1430	*Lunch & End of Day Three*

Day 4

0730 – 0930	***Configuring Additional I/O Functionality Applicable to both the C200 and C300 Controllers***
0930 – 0945	*Break*
0945 – 1100	***Configuring Additional I/O Functionality Applicable to both the C200 and C300 Controllers (cont'd)***
1100 – 1215	***Redundancy Configuration Restrictions***
1215 – 1230	*Break*
1230 – 1430	***Import/Export C300 Controller Configuration***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***Using Experion Standard Station Displays*** ***Channel Summary page ● Point Detail Display***
0930 – 0945	*Break*
0945 – 1100	***Monitoring PLC Status from Experion Displays***
1100 – 1215	***Verifying Data Exchange between PLC and Experion***
1215 – 1230	*Break*
1230 – 1400	***Performing Database Search Operations*** *Where Used Search*
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This hands-on, highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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