COURSE OVERVIEW IE0915
Honeywell TPS: Fundamentals – APP Node AM/CL Implementation

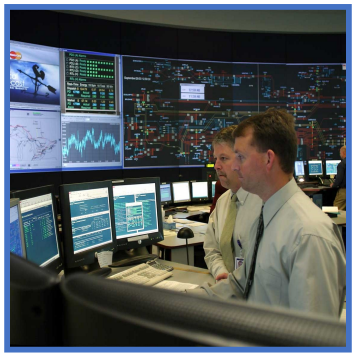
Course Title
Honeywell TPS: Fundamentals – APP Node AM/CL Implementation

Course Date/Venue
Session 1: May 25-29, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
Session 2: November 03-07, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
IE0915

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

Course Description



This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using one of our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of Honeywell Experion PKS: Fundamentals – Server Engineering and Configuration Implementation. It covers the operation of the real-time Honeywell DCS Experion process knowledge system (PKS); the ability to plan the C200, C300E and C300 controller; configuring C200, C200E and C300 hardware; controlling modules as well as sequential control module; and enhancing the skill to build control strategies on the C200, C200E, C300 and ACE.

Further, this course will also discuss the control builder import/export procedure; the controller hardware configuration, C300 controller architecture, performance calculations and monitoring; integrating with OPC and TPS platforms and using experion PKS data in other applications; the immediate action if the system goes wrong and resolving conflict in the system and any issue occur during activation of the system; monitoring the system running in smooth code; the PMM overview, MSPP architecture and data flow; the plant reference model and configuration studio, TFG development, tank to tank order setup, path specification and selection; and the task and sequence execution, triggers and equipment groups.

During this interactive course, participants will learn the tank to tank task – order creation/path and selection/task execution/order XML modification; the special task types and work flow process including SAP interface, XML file structure and exchange folders; the order download and tickets upload; the pipeline task-injection, reinjection, head/tail/adhoc cut, UI pipeline tasks-intake, transport and receipt; the MSPP reports, injection, reinjection task type including the functionalities in interface with third parties system; the alarms management and how the C200/C200E controller is networked to the server; remote I/O racks in redundant and nonredundant configuration; and the other functionalities that include batch tracking, signal simulations and re-injections.

Course Objectives

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

- Apply and gain an in-depth knowledge on Honeywell Experion PKS: fundamentals – server engineering and configuration implementation
- Discuss C200/200E controller architecture as well as control builder and C200/C200E and C300 hardware configuration concepts
- Carryout control builder import/export procedure, controller hardware configuration, C300 controller architecture and performance calculations and monitoring
- Integrate with OPC and TPS platforms and use experion PKS data in other applications
- Take immediate action if the system goes wrong and resolve conflict in the system and any issue occur during activation of the system
- Monitor the system running in smooth code and discuss PMM overview, MSPP architecture and data flow
- Identify plant reference model and apply configuration studio, TFG development, tank to tank order setup and path specification and selection
- Employ task and sequence execution and describe triggers and equipment groups
- Illustrate tank to tank task – order creation/path and selection/task execution/order XML modification
- Recognize special task types and work flow process including SAP interface, XML file structure and exchange folders
- Order download and tickets upload and illustrate, pipepline task-injection, reinjection, head/tail/adhoc cut, UI pipeline tasks-intake, transport and receipt
- Identify MSPP reports, injection, reinjection task types including the functionalities in interface with third parties system
- Implement alarms management and discuss how the C200/C200E controller is networked to the server
- Remote I/O racks in redundant and nonredundant configuration and identify other functionalities that include batch tracking, signal simulations and re-injections

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of Honeywell Experion PKS: fundamentals – Server engineering and configuration implementation for system engineers or application engineers who configure, add to or change the C200, C200E, C300 or ACE controller configuration; maintenance engineers or technicians who add new control loops or troubleshoot existing loops; and those whose job functions include performing these tasks.

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 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.

Accommodation

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

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.

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. Alaa Abdel Kerim, PhD, MSc, BSc, is a **Senior Electrical & Instrumentation Engineer** with over **35 years** of extensive experience in the **Power**, **Petrochemical**, **Refinery**, **Oil** and **Gas** industries. He specializes in **DCS**, **PLC**, **SCADA**, **HMI**, **Automation System**, **Process Control & Instrumentation**, **Hydrocarbon**, **Level & Flow Measurements**, **Analytical Instrumentation**, **Find Control Elements**, **Control Loop Operation**, **Data Acquisition & Transmission**, **Electronics Technology**, **Power Systems Control**, **Power Systems Security**, **Power Transmissions**, **Power Generation**, **Electrical Substations** and **MV/LV Electrical System**.

During his career life, Dr. Alaa has been practically and academically involved in different **Power System** and **Instrumentation international companies** and **Universities** as a **Senior Professor** & **Consultant**, **Instrumentation Engineer** and **Electrical Engineer**. His recent practical applications experience includes the design, supply, installation, operation of full **DCS**, **SCADA**, **PLC**, **HMI Automation System** for **Sumid Line Petroleum**, **Siemens USA**, **AREVA USA** to name a few. His experience also includes electrical coordination, protection level adjustments and electrical testing.

Dr. Alaa has a **PhD** degree in **Electrical Engineering** from the **Technical University of Gdansk**, **Poland** and has **Master** and **Bachelor** degrees in **Electrical Machine & Power Engineering** from **Cairo University** and **Helwan University**, respectively. Further, he is a **Certified Instructor/Trainer** and delivered numerous trainings and workshops worldwide.

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

0930 – 0935	*Registration, Coffee, Welcome & Introduction*
0935 – 0945	***PRE-TEST***
0945 – 1015	***Orientation & Course Introduction***
1015 – 1045	***C200/C200E Controller Architecture*** *C200/C200E Controller Architecture, Racks & Redundancy • C200/C200E I/O Modules*
1045 - 1050	*Break*
1050 – 1130	***C300 Controller Architecture*** *IO Topology Rules for the Series C • System • Verify Series C Hardware Connections*

1130 – 1200	***Control Builder Introduction*** *The Functionality of Control Builder ● Compare Parameters Options ● Control Builder Search ● How to Locate CB Concepts in KB ● Open & Operate Control Builder*
1200 - 12300	***C200/C200E Hardware Configuration Concepts***
1230 – 1235	*Break*
1235 – 1300	***C300 Hardware Configuration Concepts*** *The Configuration of C200/C200E ● Hardware and I/O*
1300 - 1325	***Control Builder Import / Export Procedure***
1325 – 1330	***Recap***
1330	*End of Day One*

Day 2

0930 – 1000	***Controller Hardware Configuration***
1000 – 1030	***C300 Controller Architecture***
1030 – 1035	*Break*
1035 – 1100	***Performance Calculations & Monitoring***
1100 – 1200	***Integrating with OPC & TPS Platforms***
1200 – 1230	***Using Experion PKS Data in Other Applications***
1230 – 1235	*Break*
1235 – 1300	***How to Take Immediately Action if the System Goes Wrong***
1300 - 1325	***Resolving Conflict in the System***
1325 – 1330	***Recap***
1330	*End of Day Two*

Day 3

0930 – 1000	***Resolving any Issue Occur During Activation of the System***
1000 – 1030	***Monitoring the System running in Smooth Code***
1030 – 1035	*Break*
1035 – 1100	***PMM Overview, MSPP Architecture & Data Flow***
1100 – 1200	***Plant Reference Model***
1200 – 1230	***Configuration Studio & TFG Development***
1230 – 1235	*Break*
1235 – 1300	***Tank to Tank Order Setup***
1300 - 1325	***Path Specification & Selection***
1325 – 1330	***Recap***
1330	*End of Day Three*

Day 4

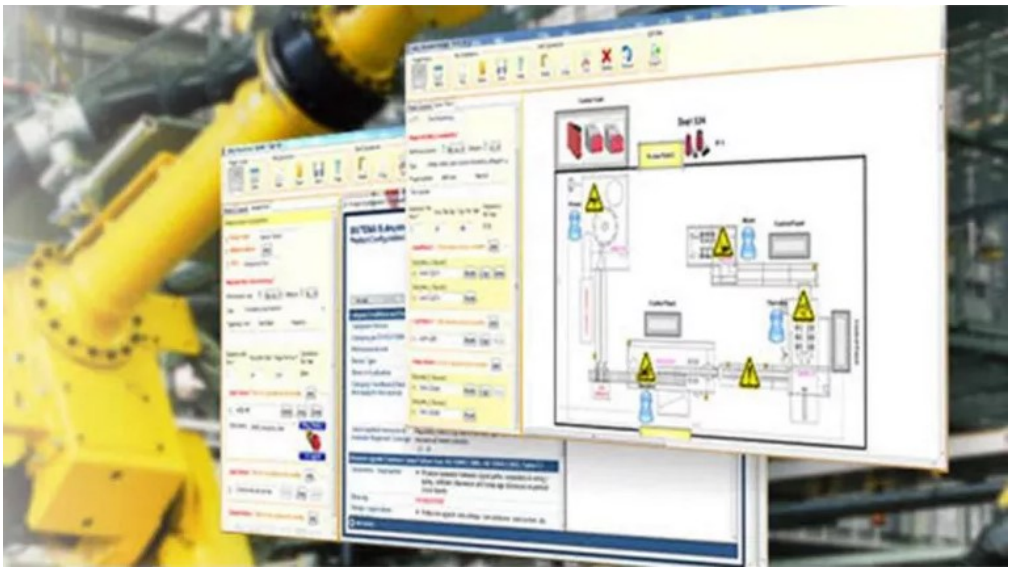
0930 – 1000	***Task & Sequence Execution***
1000 – 1030	***Triggers & Equipment Groups***
1030 – 1035	*Break*
1035 – 1100	***Tank to Tank task – Order Creation/Path***
1100 – 1200	***Selection/Task Execution/Order XML Modify***
1200 – 1230	***Special Task Types & Work Flow Process***
1230 – 1235	*Break*
1235 – 1300	***SAP Interface, XML File Structure & Exchange Folders***
1300 - 1325	***Order Download & Tickets Upload***
1325 – 1330	***Recap***
1330	*End of Day Four*

Day 5

0930 – 0945	***Pipeline Tasks-Injection, Reinjection, Head/Tail/Adhoc Cut, UI***
0945 – 1000	***Pipeline Tasks-Intake, Transport & Receipt***
1000 – 1015	***MSPP Reports, Injection, Reinjection Task Types***
1015 – 1030	***Functionalities in Interface with third Parties System (Auto-Sampler, etc)***
1030 – 1045	***Alarms Management***
1045 – 1050	*Break*
1050 – 1115	***How the C200/C200E Controller is Networked to the Server & to Remote I/O Racks in Redundant & Nonredundant Configurations***
1115 - 1145	***Other Functionalities (Batch Tracking, Signal Simulation, Re-Injections,etc)***
1145 – 1155	***Course Conclusion***
1155 – 1200	***POST-TEST***
1200	*End of Course*

Simulator (Hands-on Practical Sessions)

Practical session will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the simulator "Safety Automation Builder - Rockwell Automation".



Safety Automation Builder - Rockwell Automation

Course Coordinator

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