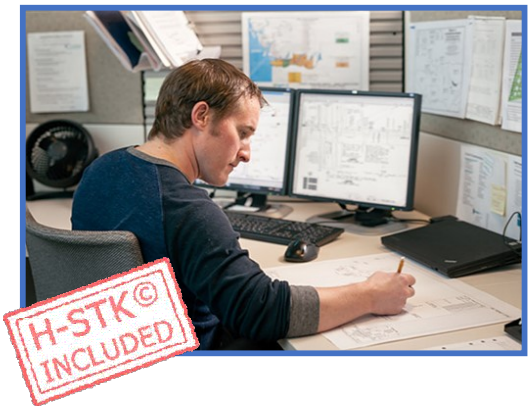
COURSE OVERVIEW NE0306
Executive Program for Energy Leaders

Course Title
Executive Program for Energy Leaders

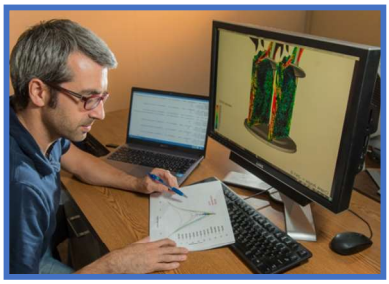


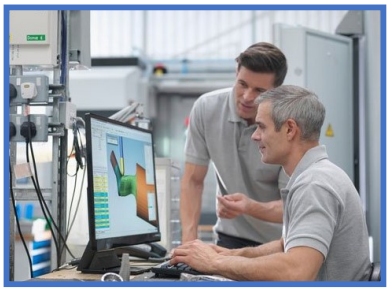
Course Date/Venue
Session 1: January 19-23, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
Session 2: July 21-25, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
NE0306

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

Course Description





This practical and 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.

Energy modelling (also called as energy simulation or building simulation) is the process of building a computer model with all its components and simulate the energy performance of the building. The simulation can be done for different parameters like different building envelope materials and different HVAC system to evaluate their impact on the performance.

This course is designed to provide participants with a detailed and up-to-date overview of energy modelling. It covers the simulation requirements in various green building rating system/codes; the sample project description; the eQuest model and eQuest simulation with schematic wizard; the energy efficiency measures in schematic wizard and eQuest simulation with detailed design wizard; and the energy efficiency measures in detailed design wizard and documentation as per to ASHRAE 90.1 appendix G for different green building rating systems.

Course Objectives

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

- Apply and gain a comprehensive knowledge on energy modelling
- Describe energy modelling and identify simulation requirements in various green building rating system/codes
- Review sample project description and prepare eQuest model and eQuest simulation with schematic wizard
- Perform energy efficiency measures in schematic wizard and eQuest simulation with detailed design wizard
- Perform energy efficiency measures in detailed design wizard and documentation as per to ASHRAE 90.1 appendix G for different green building rating systems

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 is provides an overview of all significant aspects and considerations of energy modelling for energy analysts and other professionals with a strong background in energy economics or energy technologies.

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:

Mr. Karl Thanasis, PEng, MSc, MBA, BSc, is **Senior Engineer** with over **30 years** of extensive industrial experience. His wide expertise includes Oil & Gas **Pipeline Optimization**, **Pipeline** Design & Construction, **Piping & Pipeline**, **Gas Pipe Line** Operation & Maintenance, **Pigging** Operations – Fundamental, **Pipeline Pigging** & Intelligent-Pig Survey, **Pigging Foundations**, Facilities & **Pipeline** Integrity Assessment Maintenance, Repair, **Shutdown**, **Turnaround & Outages**, **Maintenance & Reliability** Management, **Mechanical Maintenance** Planning, Scheduling & Work Control, Advanced Techniques in **Maintenance** Management, **Predictive & Preventive** Maintenance, **Maintenance & Operation Cost Reduction** Techniques, Reliability Centered Maintenance (**RCM**), **Machinery Failure** Analysis, **Rotating Equipment Reliability** Optimization & Continuous Improvement, **Material Cataloguing**, **Mechanical & Rotating Equipment** Troubleshooting & Maintenance, **Root Cause Analysis & Reliability** Improvement, **Condition** Monitoring, **Root Cause Failure Analysis** (RCFA), **Steam Generation**, **Gas Turbines**, **Combined Cycle Plants**, **Boilers**, **Process Fired Heaters**, Air Preheaters, Induced Draft Fans, All Heaters Piping Work, Refractory Casting, Heater Fabrication, Thermal & Fired Heater Design, **Heat Exchangers**, Heat Transfer, Coolers, **Power Plant** Performance, Efficiency & Optimization, **Storage Tank** Design & Fabrication, **Thermal Power Plant** Management, **Boiler & Steam** System Management, **Pump** Operation & Maintenance, **Chiller & Chiller Plant** Design & Installation, **Pressure Vessel**, **Safety Relief Valve** Sizing & Selection, **Valve** Disassembling & Repair, Pressure Relief Devices (**PSV**), **Hydraulic & Pneumatic** Maintenance, Advanced **Valve** Technology, **Pressure Vessel** Design & Fabrication, **Pumps**, Turbo-Generator, Turbine **Shaft Alignment**, **Lubrication**, Mechanical **Seals**, Packing, **Blowers**, **Bearing** Installation, **Couplings**, **Clutches** and **Gears**. Further, he is also versed in Water Meter Reading System (**MMR**), Fundamentals of **Water Utility Regulation**, **Water Network** Systems & Pumping Stations, Hydraulic **Modelling** for Water Network Design, **Water Chemistry**, **Wastewater Treatment** Technology, **Networking** System, **Water Network Design**, Industrial **Water Treatment** in Refineries & Petrochemical Plants, **Piping** System, Water Movement, Water Filtering, Mud Pumping, **Sludge Treatment** and **Drying**, **Aerobic Process** of **Water Treatment** that includes **Aeration**, **Sedimentation** and **Chlorination Tanks**. His strong background also includes **Design** and **Sizing** of all **Waste Water Treatment Plant Associated Equipment** such as **Sludge Pumps**, **Filters**, **Metering Pumps**, **Aerators** and **Sludge Decanters**.

Mr. Thanasis has acquired his thorough and practical experience as the **Project Manager**, **Plant Manager**, **Area Manager - Equipment Construction**, **Construction Superintendent**, **Project Engineer** and **Design Engineer**. His duties covered **Plant Preliminary Design**, **Plant Operation**, **Write-up** of **Capital Proposal**, **Investment Approval**, **Bid Evaluation**, **Technical Contract Write-up**, **Construction** and **Sub-contractor Follow up**, **Lab Analysis**, **Sludge Drying** and **Management** of **Sludge Odor** and **Removal**. He has worked in various companies worldwide in the **USA**, **Germany**, **England** and **Greece**.

Mr. Thanasis is a **Registered Professional Engineer** in the **USA** and **Greece** and has a **Master's** and **Bachelor's** degree in **Mechanical Engineering** with **Honours** from the **Purdue University** and **SIU** in **USA** respectively as well as an **MBA** from the **University of Phoenix** in **USA**. Further, he is a **Certified Internal Verifier/Trainer/Assessor** by the **Institute of Leadership & Management** (**ILM**) a **Certified Instructor/Trainer** and has delivered numerous trainings, courses, seminars, workshops and conferences 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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Introduction to Energy Modelling***
0930 – 0945	*Break*
0945 – 1100	***Energy Modelling/Simulation Requirements in Various Green Building Rating System/Codes***
1100 – 1230	***Sample Project Description***
1230 – 1245	*Break*
1245 – 1420	***Sample Project Description (cont'd)***
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0930	***Preparing eQuest Model***
0930 – 0945	*Break*
0945 – 1100	***Preparing eQuest Model (cont'd)***
1100 – 1230	***eQuest Simulation with Schematic Wizard***
1230 – 1245	*Break*
1245 – 1420	***eQuest Simulation with Schematic Wizard (cont'd)***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***Performing Energy Efficiency Measures in Schematic Wizard***
0930 – 0945	*Break*
0945 – 1100	***Performing Energy Efficiency Measures in Schematic Wizard (cont'd)***
1100 – 1230	***Preparing eQuest Model***
1230 – 1245	*Break*
1245 – 1420	***eQuest Simulation with Schematic Wizard***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 4

0730 – 0930	***Performing Energy Efficiency Measures in Schematic Wizard***
0930 – 0945	*Break*
0945 – 1100	***Performing Energy Efficiency Measures in Schematic Wizard (cont'd)***
1100 – 1230	***Preparing eQuest Model***
1230 – 1245	*Break*
1245 – 1420	***Preparing eQuest Model (cont'd)***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 5

0800 – 0930	***eQuest Simulation with Schematic Wizard***
0930 – 0945	*Break*
0945 – 1100	***Performing Energy Efficiency Measures in Schematic Wizard***
1100 – 1200	***eQuest Simulation with Detailed Design Wizard***
1200 – 1230	***Performing Energy Efficiency Measures in Detailed Design Wizard***
1230 – 1245	*Break*
1245 – 1345	***Preparation of Documentation as per ASHRAE 90.1 Appendix G for Different Green Building Rating Systems***
1345 – 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

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