COURSE OVERVIEW GE0626
Introduction to Facility Planning & Energy Management

Course Title
Introduction to Facility Planning & Energy Management

Course Date/Venue
Session 1: August 03-07, 2025/Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE
Session 2: December 22-26, 2025/Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
GE0626

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.

This course is designed to provide participants with a detailed and up-to-date overview of facility planning and energy management. It covers the energy and facility planning; the evaluation of planning needs of a modern facility; setting-up an initial survey and conducting the survey; setting-up checklists for the survey; evaluating emergency conditions; applying model based evaluation; and the fire, explosion, spill and contingency analysis.

During this interactive course, participants will learn the contingency analysis; evaluation of survey results and planning power needs; locating existing power problems; applying the physical planning for power alternatives; mapping out the plant and power needs; and performing budgeting and reviewing final report and overlays.

Course Objectives

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

- Apply and gain a basic knowledge on facility planning and energy management
- Discuss energy and facility planning and evaluate planning needs of a modern facility
- Set-up an initial survey, conduct the survey and set-up checklist for the survey
- Evaluate emergency conditions, apply model based evaluation and discuss fire, explosion and spill
- Carryout contingency analysis, evaluate survey results and plan power needs
- Locate existing power problems, apply physical planning for power alternatives and map out plant and power needs
- Perform budgeting and review final report and overlays

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 intended for plant engineers and those involved in the planning process for industrial needs and expansion. The course is designed for engineers in order to assist them in identifying the planning and energy management needs for their industrial facilities.

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.

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 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:

Mr. Manuel Dalas MSc, BSc, is a **Senior Mechanical & Maintenance Engineer** with over **25 years** of industrial experience in **Oil**, **Gas**, **Refinery**, **Petrochemical**, **Power** and **Nuclear** industries. His wide expertise includes **Gas Turbines & Compressors** Troubleshooting, **Gas Turbines** Performance, Maintenance & Testing, **Gas Turbine Performance** and Optimization, **Gas Turbine Control** Systems, **Advanced Gas Turbine**, **Gas Turbine Design** and **Analysis**, **Air Compressor** & **Gas Turbines** Selection and Design, **Material Cataloguing**, **Maintenance Planning & Scheduling**, Reliability Centered Maintenance (**RCM**), **Reliability Maintenance**, **Condition Based Maintenance & Condition Monitoring**, **Asset & Risk** Management, **Vibration Condition Monitoring & Diagnostics** of Machines, **Vibration & Predictive** Maintenance, Reliability Improvement & Vibration Analysis for Rotating Machinery, Effective Maintenance **Shutdown & Turnaround** Management, **Engineering Codes & Standards**, **Rotating Equipment** Maintenance, **Mechanical** Troubleshooting, **Static Mechanical Equipment** Maintenance, **Machinery** Failure Analysis, **Machinery Diagnostics & Root Cause Failure** Analysis, **Plant Reliability & Maintenance** Strategies, **Boiler** Operation & Water Treatment, **Pumps** Maintenance & Troubleshooting, **Fans**, **Blowers & Compressors**, **Process Control Valves**, Piping Systems & Process Equipment, Advanced **Valve** Technology, **Pressure Vessel** Design & Analysis, **Steam & Gas Turbine**, **High Pressure Boiler** Operation, **FRP Pipe** Maintenance & Repair, **Centrifugal & Positive Displacement Pump** Technology Troubleshooting & Maintenance, **Rotating Machinery** Best Practices, **PD Compressor & Gas Engine** Operation & Troubleshooting, **Hydraulic Tools & Fitting**, **Mass & Material Balance**, **Water Distribution & Pump Station**, **Tank Farm & Tank Termin**al Safety & Integrity Management, **Process Piping** Design, Construction & **Mechanical Integrity**, **Stack & Noise** Monitoring, **HVAC & Refrigeration** Systems, BPV Code, Section VIII, Division 2, **Facility Planning & Energy** Management, Hoist - Remote & Basic **Rigging & Slinging**, **Mobile Equipment** Operation & Inspection, **Heat Exchanger**, **Safety Relief Valve**, **PRV & POPRV/PORV**, **Bearing & Lubrication**, **Voith Coupling** Overhaul, **Pump & Valve** Technology, **Lubrication** Inspection, **Process Plant** Optimization, Rehabilitation, Revamping & Debottlenecking, Engineering Problem Solving and **Process Plant** Performance & Efficiency. Currently, he is the **Technical Consultant** of the **Association of Local Authorities of Greater Thessaloniki** where he is in charge of the mechanical engineering services for piping, pressure vessels fabrications and ironwork.

During his career life, Mr. Dalas has gained his practical and field experience through his various significant positions and dedication as the **Technical Manager**, **Project Engineer**, **Safety Engineer**, **Deputy Officer**, **Instructor**, **Construction Manager**, **Construction Engineer**, **Consultant Engineer** and **Mechanical Engineer** for numerous multi-billion companies including the **Biological Recycling Unit** and the **Department of Supplies** of **Greece**, **Alpha Bank Group**, **EMKE S.A**, **ASTE LLC** and **Polytechnic College of Evosmos**.

Mr. Dalas has a **Master's** degree in **Energy System** from the **International Hellenic University, School of Science & Technology** and a **Bachelor's** degree in **Mechanical Engineering** from the **Mechanical Engineering Technical University of Greece** along with a **Diploma** in **Management & Production Engineering** from the **Technical University of Crete**. Further, he is a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership and Management** (**ILM**), a **Certified Project Manager Professional** (**PMI-PMP**), a **Certified Instructor/Trainer**, a **Certified Energy Auditor** for **Buildings**, **Heating & Climate Systems**, a **Member** of the **Hellenic Valuation Institute** and the **Association of Greek Valuers** and a **Licensed Expert Valuer Consultant** of the **Ministry of Development and Competitiveness**. He has further delivered numerous trainings, courses, seminars, conferences and workshops internationally.

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 & Facility Planning***
0930 – 0945	*Break*
0945 – 1100	***Planning Needs of a Modern Facility***
1100 – 1230	***Setting up an Initial Survey***
1230 – 1245	*Break*
1245 – 1420	***Conducting the Survey***
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0900	***Checklists for the Survey*** *How to Set them Up*
0900 – 0915	*Break*
0915 – 1100	***Evaluating Emergency Conditions*** *Model Based Evaluation*
1100 – 1230	***Evaluating Emergency Conditions (cont'd)*** *Model Based Evaluation (cont'd)*
1230 – 1245	*Break*
1245 – 1420	***Evaluating Emergency Conditions (cont'd)*** *Fire ● Explosion ● Spill*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***Evaluating Emergency Conditions (cont'd)*** *Contingency Analysis*
0930 – 0945	*Break*
0945 – 1100	***Contingency Analysis*** *What Needs Power*
1100 – 1215	***Evaluating Survey Results & Planning Power Needs***
1215 – 1230	*Break*
1230 – 1420	***Planning Power Needs***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

0730 – 0930	***Locating Existing Power Problems***
0930 – 0945	*Break*
0945 – 1100	***Physical Planning for Power Alternatives***
1100 – 1215	***Physical Planning for Power Alternatives (cont'd)***

1215 – 1230	*Break*
1230 – 1420	***Mapping out the Plant & Power Needs***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***Putting it all Together…The Budget Battle***
0930 – 0945	*Break*
0945 – 1100	***The Budget & Putting it All Together*** *The Final Report*
1100 – 1215	***The Final Report & Overlays***
1215 – 1230	*Break*
1230 – 1345	***Group Discussion & Questions***
1345 – 1400	***Course Conclusion***
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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