

COURSE OVERVIEW EE0409 Certified Energy Professional

Course Title

Certified Energy Professional

Course Date/Venue

November 04-08, 2024/Al Nakheel Meeting Room, Royal Rose Hotel, Abu Dhabi, UAE

Course Reference

EE0409

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



highly-interactive This practical and 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 up-to-date overview detailed and of energy management. It covers the need for energy management; the energy audit, audit reports and energy audit instrumentation; the energy codes, standards and protocols; the energy purchasing, accounting and benchmarking; the energy and electricity rate structures; the electrical systems, electric energy management, economic analysis and life cycle costing; the lighting basics and lighting system improvements; and the electric motors, industrial systems and thermal energy storage.



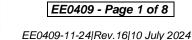
During this interactive course, participants will learn the boilers and thermal systems improvement; the waste heat, co-generation and CHP systems; the renewable energy sources and maintenance programs; building commissioning, automation and control systems; the M&V, alternative financing, green buildings and LEED; and the various units, conversions, charts, tables and acronyms provided.



















Course Objectives

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

- Get certified as a "Certified Energy Professional"
- Recognize the need for energy management as well as conduct energy audit, audit reports and energy audit instrumentation
- Explain energy codes, standards and protocols as well as energy purchasing, accounting and benchmarking
- Discuss energy and electricity rate structures and carryout electrical systems, electric energy management, economic analysis and life cycle costing
- Determine lighting basics and lighting system improvements as well as electric motors, industrial systems and thermal energy storage
- Apply boilers and thermal systems improvement and discuss waste heat, generation and CHP systems
- Identify renewable energy sources and employ maintenance programs and building commissioning, automation and control systems
- Describe M&V, alternative financing, green buildings and LEED
- Enumerate various units, conversions, charts, tables and list of acronyms provided

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, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course is designed for energy professionals including production, maintenance, safety, environment and quality department engineers and section heads.

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

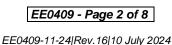
In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.













Course Certificate(s)

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Successful candidate will be certified as a "Certified Energy Professional". Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of the certificates that will be awarded to course participants: -







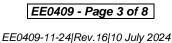
















(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.



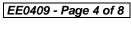






















Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -



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.



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.

Accommodation

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

Course Fee

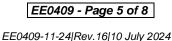
US\$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.















Course 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 a Senior Engineer with over 30 years of extensive industrial experience. His wide expertise includes Steam Generation, Steam Turbines, Power Generator Plants, Gas Turbines, Combined Cycle Plants, Boilers, Process Fired Heaters, Heat Recovery Steam Generators, Hazardous Area Classification, Power Quality, Disturbance Analysis, Blackout, Power Network, Power

Distribution, Power Systems Control, Power Systems Security, Power Electronics, ETAP, Electrical Substations, Air Preheaters, Induced Draft Fans, All Heaters Piping Work, Refractory Casting, Heater Fabrication, Thermal & Fired Heater Design, Heat Exchangers, Heat Transfer, Coolers, Pumps, Turbo-Generator, Turbine Shaft Alignment, Lubrication, Mechanical Seals, Packing, Blowers, Bearings, Couplings, Clutches and Gears. Further, he is also versed in 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 Water Engineer, Project Manager, Plant Manager, Area Manager - Equipment Construction, Construction Superintendent, Project Engineer, Engineer. Mechanical Engineer, Maintenance Engineer and Senior Instructor/Lecturer. 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.

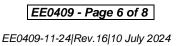
Mr. Thanasis is a Registered Professional Engineer in the USA and Greece and has a Master's and Bachelor's degree in Mechanical Engineering with Honours from the Purdue University and SIU in USA respectively as well as an MBA from the University of Phoenix in USA. Further, he is a Certified Instructor/Trainer,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

Dav 1: Monday, 04th of November 2024

Day I.	Monday, 04 Of November 2024
0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0900	The Need for Energy Management
0900 - 0915	Break
0915 – 1115	Conducting an Energy Audit, Audit Reports & Energy Audit
	Instrumentation
1115 – 1230	Conducting an Energy Audit, Audit Reports & Energy Audit
	Instrumentation (cont'd)
1230 - 1245	Break
1245 - 1420	Energy Codes, Standards & Protocols
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2: Tuesday, 05th of November 2024

0730 - 0900	Energy Purchasing, Accounting & Benchmarking
0900 - 0915	Break
0915 - 1130	Energy & Electricity Rate Structures
1130 - 1230	Electrical Systems & Electric Energy Management
1230 – 1245	Break
1245 - 1420	Economic Analysis & Life Cycle Costing
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3: Wednesday, 06th of November 2024

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Lighting Basics & Lighting System Improvements
Break
Electric Motors & Industrial Systems
Thermal Energy Storage
Break
Boilers & Thermal Systems Improvement
Recap
Lunch & End of Day Three

Thursday, 07th of November 2024 Day 4:

0730 - 0900	Waste Heat, Co-Generation, CHP Systems
0900 - 0915	Break
0915 - 1045	Renewable Energy Sources
1045 - 1230	Maintenance Programs & Building Commissioning
1230 – 1245	Break
1245 - 1420	Building Automation & Control Systems
1420 - 1430	Recap
1430	Lunch & End of Day Four

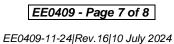


















Friday, 08th of November 2024 Day 5:

0730 - 0900	M&V & Alternative Financing
0900 - 0915	Break
0915 - 1045	Green Buildings & LEED
1045 - 1200	Units & Conversions
1200 – 1215	Break
1215 - 1300	Charts, Tables & List of Acronyms
1300 - 1315	Course Conclusion
1315 - 1415	COMPETENCY EXAM
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:-



<u>Course Coordinator</u>
Mari Nakintu, Tel: +971 2 30 91 714, Email: <u>mari1@haward.org</u>









