COURSE OVERVIEW LE0145
Laboratory Information Management System (LIMS)

Course Title
Laboratory Information Management System (LIMS)

Course Reference
LE0145

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

Course Date/Venue

Session(s)	Date	Venue
1	May 26-30, 2024	The Kooh Al Noor Meeting Room, The H Dubai Hotel, Sheikh Zayed Rd - Trade Centre, Dubai, UAE
2	August 18-22, 2024	Kizkulesi, Crown Plaza Istanbul Asia Hotels & Convention Center, Istanbul, Turkey
3	December 23-27, 2024	Hampstead Meeting Room, London Marriott Hotel Regents Park, London, United Kingdom
4	February 16-20, 2025	Oryx Meeting Room, Doubletree By Hilton Doha-Al Sadd, Doha, Qatar

Course Description

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

The LIMS is an evolving concept, with new features and functionality being added often. As laboratory demands change and technological progress continues, the functions of a LIMS will likely also change. Despite these changes, a LIMS tends to have a base set of functionality that defines it. That functionality can roughly be divided into five laboratory processing phases, with numerous software functions falling under each.

This course is designed to provide participants with a detailed and an up-to date overview of laboratory information management system (LIMS). It covers the laboratory work flow and sample flow chart; the smart lab, lab automation and lab informatics; and the LIMS including its basic concept, evolution and trends.

Further, the course will discuss the various types and benefits of LIMS application, ELN, LES, SDMS and LIS; the LIMS environment, architecture and features; the proper selection of LIMS; the LIMS preparation, implementation and validation; and building LIMS efficiently.

Course Objectives

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

- Apply and gain basic knowledge on Laboratory Information Management System (LIMS)
- Illustrate laboratory work flow and sample flow chart
- Discuss smart lab, lab automation and lab informatics
- Define LIMS including its basic concept, evolution and trends
- Identify the various types and benefits of LIMS application, ELN, LES, SDMS and LIS
- Describe LIMS environment, architecture and features
- Demonstrate and apply proper selection of LIMS
- Prepare, implement and validate LIMS in a professional manner
- Review various case studies pertaining to Southern Research Institute as well as build LIMS efficiently

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 provides an overview of all significant aspects and considerations of laboratory information management system (LIMS) for laboratory managers and staff who are involved in maintaining and using the laboratory information management system (LIMS).

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.

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:

- 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.

Course Fee

Dubai	**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.
Istanbul	**US$ 6,000** per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
London	**US$ 8,800** per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Doha	**US$ 6,000** per Delegate. 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. Dimitry Rovas, CEng, MSc, PMI-PMP, is a **Senior Engineer & Analytical & Laboratory Consultant** with extensive industrial experience in **Oil**, **Gas**, **Power** and **Utilities** industries. His expertise includes **Chemical Sampling & Dosing & Lab Tests**, Practical Problem Solving in **Chemical Analysis**, Advanced **Chemical Sampling Techniques**, **Chemical Laboratory Operations**, **Process Analyzers & Analytical Chemistry**, **Planning/Budget of Lab Consumables**, **Modern Analytical Laboratory,** **Laboratory Quality Management**, **Laboratory Internal Audit**, **Laboratory Waste Disposal,** Glass Reinforced Epoxy (**GRE**), Glass Reinforced Pipes (**GRP**), Glass Reinforced Vent (**GRV**), **Mechanical Pipe Fittings**, **Flange Joint Assembly**, Adhesive Bond Lamination, **Butt Jointing**, **Joint & Spool Production**, **Isometric Drawings**, **Flange Assembly** Method, **Fabrication & Jointing**, Jointing & Spool Fabrication, **Pipe Cuttings**, **Flange Bolt Tightening** Sequence, **Hydro Testing**, **Pump** Technology, **Pump** Selection & Installation, **Centrifugal Pumps & Troubleshooting**, **Reciprocating & Centrifugal Compressors**, **Compressor** Control & Protection, **Gas & Steam Turbines**, **Turbine** Operations, **Gas Turbine** Technology, **Valves**, **Bearings & Lubrication**, Advanced **Machinery Dynamics**, **Rubber Compounding**, **Elastomers**, **Thermoplastic**, **Industrial Rubber Products**, **Rubber** Manufacturing Systems, **Heat Transfer**, **Vulcanization Methods**, **Process Plant Shutdown & Turnaround**, **Maintenance Optimization & Best Practices**, **Maintenance Auditing & Benchmarking**, **Reliability** Management, **Rotating Equipment**, **Energy Conservation**, **Energy Loss Management** in Electricity Distribution Systems, **Energy Saving**, **Thermal Power Plant** Management, **Thermal Power Plant** Operation & Maintenance, **Heat Transfer**, **Machine Design**, **Fluid Mechanics**, **Heating & Cooling Systems**, **Heat Insulation Systems**, **Heat Exchanger & Cooling Towers**, **Mechanical Erection**, **Heavy Rotating Equipment**, Material Unloading & Storage, Commissioning & Start-Up. Further, he is also well-versed in MS project & AutoCAD, EPC Power Plant, Power Generation, Combined Cycle Powerplant, Leadership & Mentoring, Project Management, Strategic Planning/Analysis, Construction Management, Team Formation, Relationship Building, Communication, Reporting and Six Sigma. He is currently the **Project Manager** wherein he is managing, directing and controlling all activities and functions associated with the domestic heating/cooling facilities projects.

During his life career, Mr. Rovas has gained his practical and field experience through his various significant positions and dedication as the **EPC Project Manager**, **Maintenance Manager**, **Mechanical Engineer**, **Field Engineer**, **Preventive Maintenance Engineer**, **Lead Rotating Equipment Commissioning Engineer**, **Construction Commissioning Engineer**, **Offshore Lead Maintenance Engineer**, **Researcher**, **Instructor/Trainer**, **Telecom Consultant** and **Consultant** from various companies such as the Mytilineos Aluminium Group, Podaras Engineering Studies, Metka and Diadikasia, S.A., **Hellenic Petroleum Oil Refinery** and COSMOTE.

Mr. Rovas is a **Chartered Engineer** of the **Technical Chamber** of **Greece**. Further, he has a **Master's** degree in **Mechanical Engineering** and **Energy Production & Management** from the **National Technical University of Athens**. Moreover, he is a **Certified Instructor/Trainer**, a **Certified Maintenance and Reliability Professional** (**CMRP**) from the Society of Maintenance & Reliability Professionals (**SMRP**), a **Certified Project Management Professional** (**PMP**), a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**) and a **Certified Six Sigma Black Belt**. He is an active member of Project Management Institute (**PMI**), Technical Chamber of Greece and Body of Certified Energy Auditors and has further delivered numerous trainings, seminars, courses, workshops and conferences 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	**Initial Discussion & Brain Storming**
0830 – 0930	**Laboratory Work Flow & Sample Flow Chart**
0930 – 0945	Break
0945 – 1115	**Smart Lab; Lab Automation & Lab Informatics**
1115 – 1230	**What is a LIMS? The Basic Concept** LIMS Evolution & Trends
1230 - 1245	Break
1245 – 1420	**Different Types of LIMS Application** Benefits of LIMS ● ELN ● LES ● SDMS ● LIS
1420 - 1430	**Recap**
1430	Lunch & End of Day One

Day 2

0730 – 0930	**LIMS Environment**
0930 – 0945	Break
0945 – 1115	**LIMS Architecture**
1115 – 1230	**LIMS Feature**
1230 - 1245	Break
1245 - 1420	**LIMS Feature (cont'd)**
1420 – 1430	**Recap**
1430	Lunch & End of Day Two

Day 3

0730 – 0930	**LIMS Feature (cont'd)**
0930 – 0945	Break
0945 – 1115	**Practical Sessions** LIMS Demo
1115 – 1230	**Selection of Proper LIMS**
1230 - 1245	Break
1245 – 1420	**Selection of Proper LIMS (cont'd)**
1420 – 1430	**Recap**
1430	Lunch & End of Day Three

Day 4

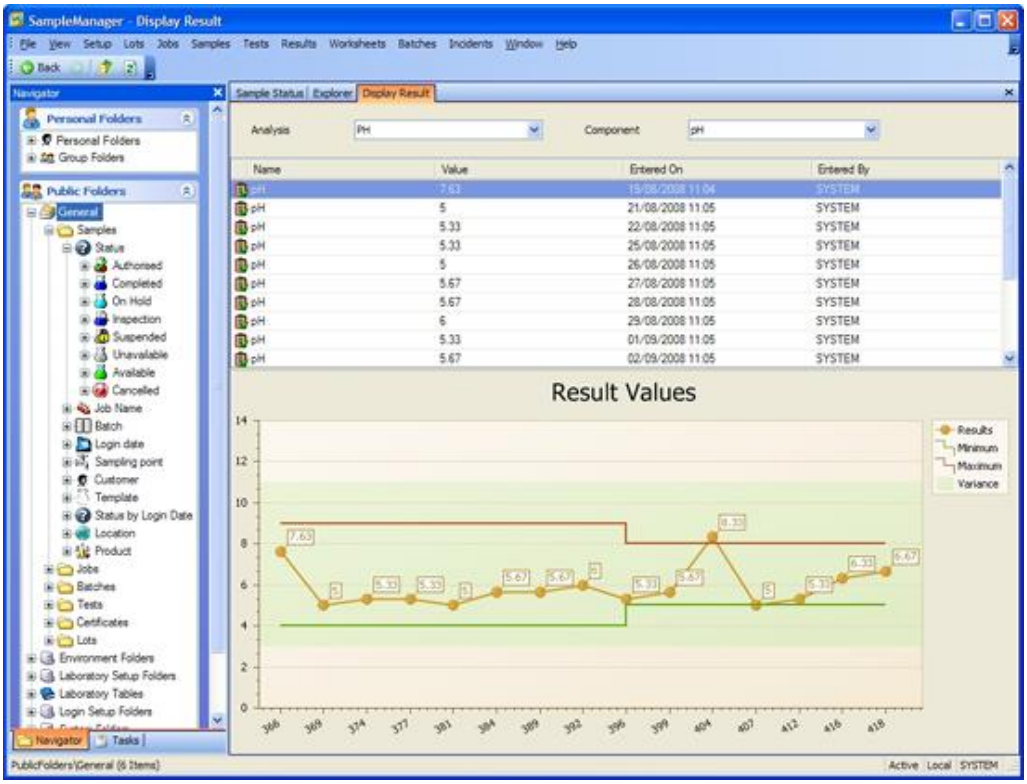
0730 – 0930	**How to Prepare for LIMS?**
0930 – 0945	Break
0945 – 1115	**How to Prepare for LIMS? (cont'd)**
1115 – 1230	**LIMS Implementation & Validation**
1230 - 1245	Break
1245 – 1420	**Case Study** Southern Research Institute
1420 – 1430	**Recap**
1430	Lunch & End of Day Four

Day 5

0730 – 0930	***Questions & Answers, Discussion***
0930 – 0945	*Break*
0945 – 1215	***Practical Sessions*** *Building LIMS*
1215 – 1230	*Break*
1230 – 1315	***Practical Sessions (cont'd)*** *Building LIMS (cont'd)*
1315 – 1345	***Practical Sessions (cont'd)*** *Building LIMS (cont'd)*
1345 – 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & 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 "Sample Manager".



Sample Manager

Course Coordinator

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