

COURSE OVERVIEW DE0931-4D
Advanced Gas Lift Design & Deliquification

Course Title

Advanced Gas Lift Design & Deliquification

Course Date/Venue

November 25-28, 2024/Ajman Meeting Room,
 Grand Millennium Al Wahda Hotel, Abu Dhabi,
 UAE

Course Reference

DE0931-4D

Course Duration/Credits

Four days/2.4 CEUs/24 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.



This course is designed to provide participants with a detailed and up-to-date overview of advanced gas lift design and deliquification. It covers the symptoms of liquid loading in gas wells; the critical velocity to analyze wells loading or not; the techniques with nodal analysis and sizing tubing; and the proper selection, sizing and operation of compression.



During this interactive course, participants will learn the continuous (bypass), conventional and gas assisted plunger lift; the use of foam and beam pumps to deliquefy gas wells; the hydraulic pumps; the electrical submersible pumps and progressive cavity pumps; the gas lift technology, gas lift process, various types of gas lift system and the advantages and limitation of gas lift; the unloading gas lift wells, gas lift equipment and valves mechanism; and the dual gas lift installation, gas lift system evaluation, surging production, troubleshooting gas lift wells and production optimization.

Course Objectives

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

- Apply and gain an advanced knowledge on advanced gas lift design and deliquification
- Recognize the symptoms of liquid loading in gas wells and the critical velocity to analyze wells loading or not
- Optimize techniques with nodal analysis and apply sizing tubing
- Carryout proper selection, sizing and operation of compression
- Identify the continuous (bypass), conventional and gas assisted plunger lift
- Use foam and beam pumps to deliquefy gas wells and recognize hydraulic pumps
- Identify electrical submersible pumps and progressive cavity pumps
- Discuss gas lift technology, gas lift process, various types of gas lift system and the advantages and limitation of gas lift
- Recognize unloading gas lift wells, gas lift equipment and valves mechanism
- Employ dual gas lift installation, gas lift system evaluation, surging production, troubleshooting gas lift wells and production optimization

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 advanced overview of gas lift design and deliquification for engineers, field technicians, field supervisors, and those who select, design, install, monitor and evaluate, or operate artificial lift systems for use in dewatering gas wells.

Training Methodology

This interactive training course includes the following training methodologies as a percentage of the total tuition hours: -

- 30% Lectures
- 20% Workshops & Work Presentations
- 30% Case Studies & Practical Exercises
- 20% Software, Simulators & 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: -

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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 **2.4 CEUs** (Continuing Education Units) or **24 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.

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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

US\$ 6,750 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. Victor Saran, MSc, BSc, is a Senior Drilling & Petroleum Engineer with over 40 years of offshore & onshore experience within the Oil & Gas and Petroleum industries. His wide expertise covers Wellhead Testing & Operations, Well Stimulation & Reservoir Management, Well Performance, Well Servicing, Well Killing Procedures, Well Completion, Well Fracturing, Well Testing, Acid Additives, Perforating Techniques, Sandstone Acidizing, Carbonate Acidizing, Acid Fracturing, in Electrical Submersible Pumps Application, ESP Assembly & Disassembly Techniques, ESP Modeling & Design, ESP Construction & Operational Monitoring, ESP Troubleshooting & Maintenance, Production Engineering, Well Monitoring & Testing, Applied Reservoir Engineering, Water Flooding, Workover & Completions, Injection Systems, Artificial Lift Systems, Gas Lift, ESP, Rod Pumping, Production Testing & Optimization, Slickline and Electric Line Operations, Perforating & Logging, Coiled Tubing Operations, Nozzles, Motors, Deposits Removal & Inhibition and Asphaltnes-Sulphates, Workover Completion, Water Injection & Gas Lift, Nodal Analysis, Drill Stem Testing, H₂S Crude Oil and Oil & Gas Production. Further, he is also well-versed in risk assessments, pipelines construction, pump & loading terminals, material and services procurement, budgeting, contracts & logistics, safety and personnel issues, tendering procedures, budget and work program, cost control–cost recovery, selection of materials and services and quality control. Currently, he is the Country Manager of Energean Oil & Gas wherein he is responsible in organizing and supervising the drilling of exploration wells and well connections and testing.

During Mr. Saran's life, he has gained his practical and field experience through his various significant positions as the **Completions Consultant, Lecturer/Instructors, Part-Time Assistant Lecturer, Part-Time Instructor, Technical Consultant, Drilling & Workover Manager, Production Manager, Production Engineer, Petrochemical Engineer, Mechanical Engineer, Petroleum Services Engineer** for numerous international companies and universities that includes **Lukoil Neftochim, J&P Avax, Kavala Oil Greece, North Aegean Petroleum Company, Petrola International, Dowell Schlumberger, Technological Institute of Kavala, University of Thessaloniki and University of Crete.**

Mr. Saran has **Master & Bachelor degrees in Petroleum Engineering** from the **University of Westminster London, UK.** Further, he is a **Certified Instructor/Trainer, a Certified Trainer/Assessor** by the **Institute of Leadership & Management (ILM)** and has conducted numerous trainings, workshops and conferences worldwide.

Accommodation

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



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: Monday, 25th of November 2024

0730 - 0800	Registration & Coffee
0800 - 0815	Welcome & Introduction
0815 - 0830	PRE-TEST
0830 - 0930	Recognize Symptoms of Liquid Loading in Gas Wells
0930 - 0945	Break
0945 - 1045	Critical Velocity to Analyze Wells Loading or Not
1045 - 1145	Optimize Techniques with Nodal Analysis
1145 - 1200	Break
1200 - 1300	Sizing Tubing
1300 - 1420	Compression: Selection, Sizing & Operation
1420 - 1430	Recap
1430	Lunch & End of Day One

Day 2: Tuesday, 26th of November 2024

0730 - 0830	Plunger Lift: Continuous (bypass), Conventional & Gas Assisted
0830 - 0930	Use of Foam to Deliquefy Gas Wells
0930 - 0945	Break
0945 - 1045	Hydraulic Pumps
1045 - 1130	Use of Beam Pumps to Deliquefy Gas Wells
1130 - 1230	Electrical Submersible Pumps
1230 - 1245	Break
1245 - 1330	Progressive Cavity Pumps
1330 - 1420	Gas Lift Technology
1420 - 1430	Recap
1430	Lunch & End of Day Two

Day 3: Wednesday, 27th of November 2024

0730 - 0830	Gas Lift Process
0830 - 0930	Types of Gas Lift System
0930 - 0945	Break
0945 - 1045	Advantages & Limitation of Gas Lift
1045 - 1130	Unloading Gas Lift Wells
1130 - 1230	Gas Lift Equipment
1230 - 1245	Break
1245 - 1330	Valves Mechanism
1330 - 1420	Dual Gas Lift Installation
1420 - 1430	Recap
1430	Lunch & End of Day Three

Day 4: Thursday, 28th of November 2024

0730 - 0900	Gas Lift System Evaluation
0900 - 0915	Break
0915 - 1030	Surging Production
1030 - 1145	Trouble Shooting Gas Lift Wells
1145 - 1200	Break



1200 - 1330	<i>Production Optimization</i>
1330 - 1345	<i>Case Study</i>
1345 - 1400	<i>Course Conclusion</i>
1400 - 1415	<i>POST-TEST</i>
1415 - 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>

Practical Sessions

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



Course Coordinator

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