

**COURSE OVERVIEW DE0388**  
**Interactive Petrophysics - Advanced IP**

**Course Title**

Interactive Petrophysics - Advanced IP

**Course Reference**

DE0388

**Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs

**Course Date/Venue**

Session(s)	Date	Venue
1	April 28-May 02, 2024	Oryx Meeting Room, DoubleTree By Hilton Doha-Al Sadd, Doha, Qatar
2	September 29- October 03, 2024	
3	October 27-31, 2024	
4	December 08-12, 2024	

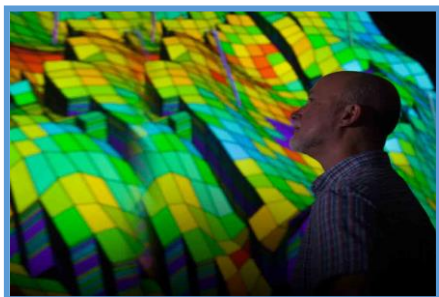


**Course Description**

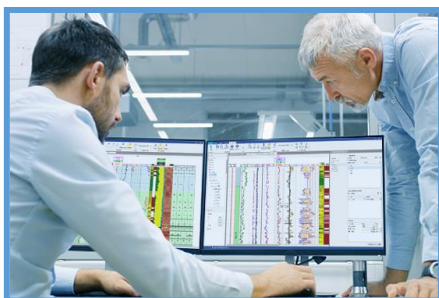


***This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.***

This course is designed to provide participants with a detailed and up-to-date overview of Advanced Interactive Petrophysics (IP). It covers the advanced data import techniques, data quality control and error advanced checking; the batch processing and multi-well analysis; integrating core and log data and log editing and correction; the complex lithology analysis and advanced porosity and permeability modeling; the saturation height modeling, NMR and spectral log analysis, fractured reservoir analysis and shale gas and tight oil analysis; and the geomechanical analysis integration, formation damage assessment and reservoir characterization for EOR projects.



During this interactive course, participants will learn the petrophysical models for reservoir simulation; the methods and consideration for upscaling petrophysical data; integrating petrochemical analysis with seismic attributes; the data visualization and cross plotting; the uncertainty analysis and risk assessment; the use of IP for real-time analysis and advanced scripting and automation; reporting and presentation of tools and techniques for data sharing collaborative analysis; and the future trends and innovations in petrophysics.



## Course Objectives

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

- Apply and gain an advanced knowledge on interactive petrophysics (IP)
- Carryout advanced data import techniques, data quality control and error checking
- Employ batch processing and multi - well analysis and integrate core and log data
- Implement advanced log editing and correction, complex lithology analysis and advanced porosity and permeability modeling
- Illustrate saturation height modeling, NMR and spectral log analysis, fractured reservoir analysis and shale gas and tight oil analysis
- Apply geomechanical analysis integration, formation damage assessment and reservoir characterization for EOR projects
- Build petrophysical models for reservoir simulation and apply methods and consideration for upscaling petrophysical data
- Integrate petrochemical analysis with seismic attributes and apply data visualization and cross plotting
- Evaluate uncertainty analysis and risk assessment, use IP for real – time analysis and apply advanced scripting and automation
- Recognize reporting and presentation tools, techniques for data sharing and collaborative analysis including the future trends and innovations in petrophysics

## 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 provides an overview of all significant aspects and considerations of interactive petrophysics-advanced IP for petrophysicists, well log analysts, reservoir engineers, geoscientists, oil and gas industry professionals and those who have a background or interest in petrophysics and want to advance their skills and knowledge in interactive petrophysical analysis.

## Course Fee

**US\$ 8,500** per Delegate. 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: -


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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 **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.

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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 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:



**Dr. Chris Kapetan**, PhD, MSc, is a **Senior Drilling & Petroleum Engineer** with **40 years** of international experience within the **onshore and offshore oil & gas** industry. His wide experience covers **Cased Hole Logging Interpretation, Cased Hole Formation Evaluation, Cased Hole Applications, Data Acquisition in Cased-hole Logging, Drill String Design & Drilling Optimization, Drill String Design Calculations, Enhanced Oil Recovery (EOR), Improved Oil Recovery (IOR), Performance Analysis, Prediction, and Optimization Using NODAL Analysis, Stuck Pipe Prevention, Stuck Piping & Fishing Operation, Fishing Operations, Fishing Techniques, Fishing Methodologies, Wireline Fishing Procedures, Wireline & Coil Tubing, Coiled Tubing Fishing Operation, Coiled Tubing Technology, Fishing Options in Horizontal Wells, Horizontal & Multilateral Wells, Well Completion & Stimulation, Artificial Lift System Selection & Design, Drilling Practices, Drilling Fluids Technology, Drilling Operations, Simulation Program for The International Petroleum Business, International Oil Supply, Transportation, Refining & Trading, Control Well-Flow Lines Parameters, Decision Analytic Modelling Methods for Economic Evaluation, Probabilistic Risk Analysis (Monte Carlo Simulator) Risk Analysis Foundations, Global Oil Demand, Crude Oil Market, Global Oil Reserves, Oil Supply & Demand, Governmental Legislation, Contractual Agreements, Financial Modeling, Oil Contracts, Project Risk Analysis, Feasibility Analysis Techniques, Capital Operational Costs, Oil & Gas Exploration Methods, Reservoir Evaluation, Extraction of Oil & Gas, Crude Oil Types & Specifications, Sulphur, Sour Natural Gas, Natural Gas Sweetening, Petroleum Production, Field Layout, Production Techniques & Control, Surface Production Operations, Oil Processing, Oil Transportation-Methods, Flow metering & Custody Transfer and Oil Refinery**. Further, he is also well-versed in **Enhanced Oil Recovery (EOR), Electrical Submersible Pumps (ESP), Oil Industries Orientation, Geophysics, Production Operations, Production Management, Perforating Methods & Design, Perforating Operations, Fishing Operations, Well & Reservoir Testing, Reservoir Stimulation, Hydraulic Fracturing, Carbonate Acidizing, Sandstone Acidizing, Petroleum Business, Petroleum Economics, Field Development Planning, Gas Lift Valve Changing & Installation, Well Completion Design & Operation, Well Surveillance, Well Testing, Well Stimulation & Control and Workover Planning, Completions & Workover, Rig Sizing, Hole Cleaning & Logging, Well Completion, Servicing and Work-Over Operations, Practical Reservoir Engineering, X-mas Tree & Wellhead Operations, Advanced Petrophysics/Interpretation of Well Composite, Construction Integrity & Completion, Corrosion Control, Slickline, Pipeline Pigging, Corrosion Monitoring, Cathodic Protection** as well as **Root Cause Analysis (RCA), Root Cause Failure Analysis (RCFA), Gas Conditioning & Process Technology, Production Safety and Delusion of Asphalt**. Currently, he is the **Operations Consultant & the Technical Advisor at GEOTECH** and an independent **Drilling Operations Consultant** of various engineering services providers to the international clients as he offers his expertise in many areas of the **drilling & petroleum discipline** and is well **recognized & respected** for his process and procedural expertise as well as ongoing participation, interest and experience in continuing to promote technology to producers around the world.

Throughout his long career life, Dr. Chris has worked for many international companies and has spent several years **managing technically complex wellbore interventions** in both **drilling & servicing**. He is a **well-regarded** for his **process and procedural expertise**. Further, he was the **Operations Manager at ETP Crude Oil Pipeline Services** where he was fully responsible for optimum operations of crude oil pipeline, **workover and directional drilling, drilling rigs** and equipment, drilling of various geothermal deep wells and **exploration wells**. Dr. Chris was the **Drilling & Workover Manager & Superintendent for Kavala Oil** wherein he was responsible for supervision of **drilling operations and offshore exploration**, quality control of performance of **rigs, coiled tubing**, crude oil transportation via pipeline and abandonment of **well** as per the API requirements. He had occupied various key positions as the **Drilling Operations Consultant, Site Manager, Branch Manager, Senior Drilling & Workover Manager & Engineer and Drilling & Workover Engineer, Operations Consultant, Technical Advisor** in several petroleum companies responsible mainly on an **offshore sour oil field (under water flood and gas lift)** and a gas field. Further, Dr. Chris has been a **Professor of the Oil Technology College**.

Dr. Chris has **PhD in Reservoir Engineering** and a **Master's degree in Drilling & Production Engineering** from the **Petrol-Gaze Din Ploiesti University**. Further, he is a **Certified Surfaced BOP Stack Supervisor** of **IWCF**, a **Certified Instructor/Trainer, a Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)** and has conducted **numerous short courses, seminars and workshops** and has published several technical books on **Production Logging, Safety Drilling Rigs and Oil Reservoir**.

### 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 Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

#### **Day 1**

0730 – 0800	<i>Registration &amp; Coffee</i>
0800 – 0815	<i>Welcome &amp; Introduction</i>
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<i>Review of IP Basics: Quick Recap of IP's Basic Functionalities</i>
0930 – 0945	<i>Break</i>
0945 – 1030	<i>Advanced Data Import Techniques: Importing &amp; Managing Complex Data Sets</i>
1030 – 1130	<i>Data Quality Control &amp; Error Checking: Ensuring Accuracy in Data Input</i>
1130 – 1215	<i>Batch Processing &amp; Multi-Well Analysis: Techniques for Handling Multiple Datasets Efficiently</i>
1215 – 1230	<i>Break</i>
1230 – 1330	<i>Integrating Core &amp; Log Data: Maximizing Insights from Combined Data Sources</i>
1330 – 1420	<i>Case Studies: Examples of Complex Data Import &amp; Management Scenarios</i>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day One</i>

#### **Day 2**

0730 – 0830	<i>Advanced Log Editing &amp; Correction: Techniques for Refining Log Data.</i>
0830 – 0930	<i>Complex Lithology Analysis: Handling Multiple Mineral Models</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Advanced Porosity &amp; Permeability Modeling: Sophisticated Methods for Estimation</i>
1100 – 1215	<i>Saturation Height Modeling: Understanding &amp; Applying Capillary Pressure Data</i>
1215 – 1230	<i>Break</i>
1230 – 1330	<i>NMR &amp; Spectral Log Analysis: Detailed Interpretation of Advanced Log Types</i>
1330 – 1420	<i>Practical Exercise: Conducting Advanced Log Analysis on Sample Data</i>
1420 – 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Two</i>

**Day 3**

0730 – 0830	<b>Fractured Reservoir Analysis: Identifying &amp; Evaluating Fractures Using IP</b>
0830 – 0930	<b>Shale Gas &amp; Tight Oil Analysis: Special Considerations for Unconventional Resources</b>
0930 – 0945	Break
0945 – 1100	<b>Geomechanical Analysis Integration: Incorporating Mechanical Properties into Petrophysical Evaluation</b>
1100 – 1215	<b>Formation Damage Assessment: Identifying &amp; Evaluating Potential Formation Damage</b>
1215 – 1230	Break
1230 – 1330	<b>Reservoir Characterization for EOR Projects: Petrophysical Considerations for Enhanced Oil Recovery</b>
1330 – 1420	<b>Workshop: Hands-On Session on Specialized Applications</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Three

**Day 4**

0730 – 0830	<b>Building Petrophysical Models for Reservoir Simulation: Techniques for Model Building</b>
0830 – 0930	<b>Upscaling Petrophysical Data: Methods &amp; Considerations for Data Upscaling</b>
0930 – 0945	Break
0945 – 1100	<b>Integration with Seismic Data: Enhancing Petrophysical Analysis with Seismic Attributes</b>
1100 – 1215	<b>Data Visualization &amp; Cross-Plotting: Advanced Techniques for Data Representation</b>
1215 – 1230	Break
1230 – 1330	<b>Uncertainty Analysis &amp; Risk Assessment: Evaluating Uncertainties in Petrophysical Interpretation</b>
1330 – 1420	<b>Group Activity: Collaborative Project Integrating Petrophysical Data with Geological Models</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Four

**Day 5**

0730 – 0830	<b>Using IP for Real-Time Analysis: Capabilities for Real-Time Data Interpretation</b>
0830 – 0930	<b>Advanced Scripting &amp; Automation: Customizing IP Workflows for Efficiency</b>
0930 – 0945	Break
0945 – 1100	<b>Reporting &amp; Presentation Tools: Generating Reports &amp; Presentations From IP</b>
1100 – 1230	<b>Data Export &amp; Collaboration: Techniques for Data Sharing &amp; Collaborative Analysis</b>
1230 – 1245	Break
1245 – 1345	<b>Future Trends &amp; Innovations in Petrophysics: Staying Updated with Industry Advancements</b>
1345 – 1400	<b>Course Conclusion</b>
1400 – 1415	<b>POST-TEST</b>
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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