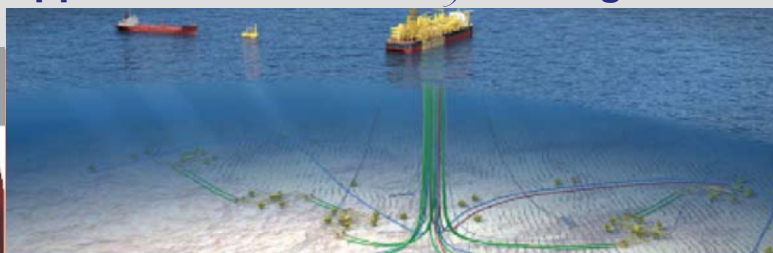


International Petroleum & Gas Technology Training

Certification/Careers in Oil & Gas Industry

(Scholarship Opportunities available for Young Professionals)



Design for:

- Graduate Engineers/Scientists
- Entry Level Professionals
- Management Professionals
- Service Company Personnel's
- Field/Technical Support Staff
- Managers/Supervisors
- Others who need a better understanding of the subject.



VALUE ADDS/ BENEFITS

- Tailored content in a new condensed technical format.
 - A modern presentation using slides, animations/video.
 - A practical approach with oilfield based applications of major onshore/offshore fields from industry leaders with 35 years' global experience.
 - Premium performance & high profile standing.
 - Robust & comprehensive curriculum.
 - Customized experiential content fit for purpose.
 - Super dynamic interactive session with online support
 - Flexible & adaptable for executive/multi-sessions.
 - Post program workshop/field support.
 - Innovative with hands-on-experience.
 - Unrivaled network opportunity with industry experts
- Career opportunities

Elcharions learning & development division, delivers technical & core petroleum & gas technology skill development in a variety of formats. Our training is facilitated by carefully selected industry practitioners experts in their respective fields to deliver targeted, timely information that fosters knowledge, learning & technology transfer.

www.elcharions.com

On-site & custom tailored

- On-site & customized training has the following benefits:
- * It's economical for large groups
 - * Convenient times & locations
 - * Content can be customized to optimize its relevance
 - * Confidential information can flow freely

ABOUT THE PROGRAM

The international petroleum & gas technology skill development program is designed to build skills and knowledge required for local content development of candidates to work in the oil & gas industry, especially candidates with or without work experience. The intensive program provides a balanced overview of industry trend. It showcases the activities of exploration & production, facility engineering, health safety, security & environmental management (HSSE).

The objective of this program is to transfer petroleum & gas technology skills and technical know how to Nigerians by equipping candidates with the necessary scientific and engineering background on design, operation, and management of petroleum and gas systems.

Candidate's will obtain a deep understanding of recent petroleum industry operational standard; assimilate petroleum technology skills for optimum performance in diver's areas of specialization. Candidates would be furnished with practical based application, exercises, case studies and demonstration. Enhanced field support will be provided to give professional hands-on-experience needed for immediate application. Candidate benefits are not limited to addressing professionalism, employment issues, workshops, field support, use of software, manual, networking with industry experts, etc.

Inclusive of Scholarship Opportunities.

Emerging technologies would be presented in a modern re-engineered format. All sessions (updated on a regular basis) would be presented with text, figures and DVD's with videos & detailed animations used to illustrate many key points of most recent technologies.

Elcharions in partnership with **Kiroco Inc USA** & its international oilfield JV partners in energy resources and workforce development/employment offer intensive petroleum & gas industry skill development training program/ International Certification on :

- Well Construction/Drilling
- Reservoir Engineering
- Drilling Fluid Technology
- Well Completion & Production
- Offshore Oil & Gas Systems Technology
- Well Testing, Design & Analysis
- Well Logging & Interpretation
- Onshore/offshore Pipeline
- Corrosion Management In Oil & Gas Industry
- Seismic Interpretation
- Petroleum Project Economics & Risk Analysis (non-technical)

HOW TO SAVE

Scholarship Candidate's	Executive Candidate's
--------------------------------	------------------------------

Save up to 100%	Save up to 10%
-----------------	----------------

Call
084814966, 08184788802, 08035441743

This program is designed to equip candidates with hands-on-experience to optimize oil & gas production in Nigeria and beyond.

The program provides scholarship opportunities for young professional candidates.

Please note, related skill/experience not necessary for Admission of young professional scholarship candidates.

Fast Track/Online Programs Available!

- | | |
|--|---------------------------------------|
| • Snr. Reservoir Engineer
ATP/Exxon | • Wireline Specialist
Schlumberger |
| • Production Optimization Advisor
Ocean Tec/Unipart | • Facilities Engineer
Chevron |
| • Well Engineering Specialist
Shell | • EVS Specialist
RGU |

MEET YOUR EXPERT FACULTY:

- Offshore Project Manager
Total
- Drilling Optimization Manager
Transocean/Deutag
- Integrated Fluids Specialist
MiSwaco
- Others, See Brochure for full lineup...



+234(84) 814 966, (81) 8478 8802, (80) 3544 1743 Info@elcharions.com, www.elcharions.com

KEY LEARNING OUTLINE

WELL CONSTRUCTION/ DRILLING

YOU WILL LEARN

- About drilling equipment and how to use it.
- Drilling terminologies, abbreviation keys and terminologies for planning a successful well.
- Common drilling problems and how to avoid them.
- How to read a morning report.
- The technology behind information on morning report.



COURSE CONTENT

- Overall drilling technology processes.
- The language of drillers: understanding their terminologies.
- **Rig equipment:** rig types, drill bits, drill strings, solids management, well control and tank arrangement.
- **Rig operations:** drilling fluids, cementing & principles of casing design.
- **Hole problems:** stuck pipe, lost returns, well intervention and control.
- MWD and directional drilling operations and tools.
- Morning reports.

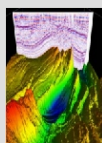
RESERVOIR ENGINEERING

YOU WILL LEARN

- The Importance of reservoir engineering.
- The types of reservoirs.
- The fundamentals of fluid flow in porous media.
- Characteristics of reservoirs by fluid type and drive mechanisms.
- The basis for reservoir fluid distribution.
- About PVT analysis.
- About porosity, permeability and reservoir fluid content.
- About oil and gas well performance and pressure buildup analysis.
- About oil displacement and optimizing reservoir performance.
- The basics and techniques of enhanced oil recovery.
- How oil in place (OIP) can be estimated and recovery predicted.

COURSE CONTENT

- Basics of reservoir engineering.
- Reservoir fluid properties.
- Aquifer characterization.
- Coring and rock properties.
- Fluid flow and well properties.
- Reservoir fluid distribution.
- Reservoir classification.
- Reservoir drive mechanisms.
- Oil and gas well performance and integration.
- Pressure buildup analysis.
- Oil displacement techniques.
- Estimation of oil initial in place (OIP) and gas initial in place (GIIP).
- Improved recovery techniques.



DRILLING FLUID TECHNOLOGY

YOU WILL LEARN HOW TO

- Design drilling fluid systems.
- Perform drilling fluid formulation.
- Use clay and polymers to achieve desired mud properties.
- Apply water chemistry to the treatment of drilling fluids.
- Perform complete API water-based mud and non-aqueous drilling fluid test.
- Evaluate the information on an API water-based and non-aqueous drilling fluid report.
- Identify drilling fluid contaminants and prescribe corrective treatments.
- Select water phase salinity and activity for bore hole stability.
- Perform QA/QC of drilling fluid chemical additives.
- Select non-aqueous fluids to meet drilling requirements and environmental concerns.
- Manage non-aqueous drilling fluid systems.
- Optimize drilling fluid systems.

COURSE CONTENT

- Integrated fluids engineering design and application processes.
- Drilling fluids formulation.
- Composition and properties of water-based drilling fluids.
- Analysis of API water-base mud and non-aqueous drilling fluid report.
- API water-based and non-aqueous drilling fluid tests.
- Adjustment of non-aqueous drilling fluid properties.
- API Pilot testing.
- Introduction to API fluid testing equipments.
- Identification and treatment of drilling fluid contaminants.
- Composition and properties of water-based, oil based and synthetic drilling fluid systems.
- Selection of water phase salinity for borehole stability.
- Introduction to completion and work over systems.
- Managing invert emulsion fluid systems: rig preparation and displacement.
- Non-aqueous drilling fluids designed for environmental compliance.
- Drilling fluids QA/QC.
- Drilling fluids integration and optimization.

COMPLETION & PRODUCTION

YOU WILL LEARN HOW TO

- Develop competency in completion strategy for wells of different conditions.
- Select tubing, packers and completion flow control equipment.
- Appraise or design suitable flow systems.
- Identify flaws on installation and retrieval practices for tubing, packers, etc.
- Identify design options for horizontal, multilateral and HPHT wells, etc.
- Select an appropriate well intervention strategy and equipments.
- Identify key features and techniques for sand control, frac-pack and well stimulation options.
- Assess, specify for remedial measures on formation damage and skin removal.
- Develop and proffer strategy for completion program integration.

COURSE CONTENT

- Basic well completion design and application.
- Well completion techniques.
- Well quality and integrity practices.
- Packer selection and tubing forces.
- Wellheads, manifold chokes, subsurface safety valves (SSSV) and flow control equipment.
- Tubing design and selection.
- Inflow and tubing performance.
- Materials selection.
- Corrosion control and erosion mitigation.
- Deviated and multiple zone, subsea, horizontal/multi-lateral and HPHT completion options.
- Perforation design.
- Causes and prevention of formation damage and skin removal.
- Well stimulation design.
- Sand control techniques.
- Well intervention: Wireline logging, coiled tubing and workover rig operations.
- Safety aspects of well completion design and workover systems.



THE FUTURE OF OFFSHORE TECHNOLOGICAL INNOVATION

International Offshore Development Projects Nigeria
SUBSEA INTERVENTION 2011, TITLE:
Optimizing Subsea Production & Advanced Well Integrity Management in
Shallow, Deep & Ultra Deepwater Fields OSSPAWIM (February, 2011.)

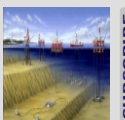
This program is designed to provide the greatest in-depth coverage of offshore subsea technology with an opportunity to meet both small and large subsea industry operators in the Gulf of Guinea, Gulf of Mexico, and the Northsea. It exposes the engineering and technology behind subsea production, design, operation, & Management.

This provides a valuable learning & technology transfer opportunity with hands-on-experience for immediate subsea application.

VALUE ADDS

- An opportunity to become a subsea professional/specialist
 - Enhance offshore-subsea project
 - Boost production through integrated operations solutions
 - Maximize performance integrity & optimize return on investment.
 - Overcome subsea/offshore challenges through effective management strategies & technologies.
 - Experience turn around efficiency, technological independence & transfer initiative.
- For a Free Subscription/Information on: Registration, Sponsorship/Exhibition & Participation.

Contact: Smith Rogers @: smith.rogers@elcharions.com



SUBSCRIBE TO ATTEND

OFFSHORE OIL AND GAS SYSTEMS

YOU WILL LEARN HOW TO

- Acquit with offshore oil and gas terminology.
 - Develop awareness for early history of offshore oil and gas system.
 - Identify its evolution to the present time.
 - Determine how companies explore offshore oil and gas reserves.
 - Describe how wells are drilled, completed and produced in offshore systems.
 - Identify various types of offshore platforms, such as fixed and floating platforms.
 - Recognize key design concepts, fabrication and installation issues associated with offshore structures and facilities.
 - Identify subsea and topside facilities used to produce oil and gas.
- Recognize and implement methods for offshore production transportation.

COURSE CONTENT

- Setting the stage such as, history, science, engineering approach and recent innovations.
- Deepwater exploration.
- Drilling and well completion.
- Field development options and systems.
- Fixed/rigid offshore structures.
- Floating production systems offloading (FPSO).
- Drill ship, ship shapes, submersible and semi-submersibles.
- Subsea systems and intervention.
- Production facilities and Topsides.
- Pipeline construction and installation.
- Risers and flowlines.
- Technology versus wave.
- Exercises and case histories around the world.



WELL TESTING, DESIGN & ANALYSIS

YOU WILL LEARN

- About well test design and analysis.
- Keys to effective well test practices.
- The concepts of well tests design and specify equipment requirements.
- How to interpret well test data.
- How to set up and analyze well tests for oil and gas wells using traditional and modern well testing analytical techniques.
- How to perform QA/QC of pressure data.
- Identify and discard unuseful data.
- How to identify various wellbore and reservoir characteristics and choose the appropriate model for analysis.
- How to identify well test design constrains and indicate alternatives.

COURSE CONTENT

- Purpose of well testing.
- Types of well testing.
- Simple and ideal systems behaviour.
- Wellbore skin factors.
- Wellbore storage mechanisms.
- Semi-log analysis.
- Type of curves.
- Hydraulically fractured wells.
- Superposition and horner plots.
- Average reservoir pressure.
- Derivative curves.
- Interference and pulse tests.
- Data preparation and QC procedures.
- Well test design, pattern recognition and model selection.
- Complex reservoir models.
- Multi-layer reservoirs.
- Horizontal wells.
- Back pressure tests for gas wells.
- Reality checks.
- Exercises etc.

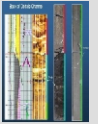
WELL LOGGING & INTERPRETATION

YOU WILL LEARN HOW TO

- Identify reservoirs and determine mineralogy, porosity, permeability and saturation in various lithologies.
- Recognize the importance of electrical and wave properties of earth materials.
- Determine reservoir fluids mobility.
- Interpret pressure profiles.
- Develop optimum tools and logging programmes.
- Apply quick look (a qualitative model) methods of formation evaluation.

COURSE CONTENT

- Well log interpretation objectives.
 - Invasion profile.
 - Borehole geophysics and environment.
 - Passive electrical and wave properties of earth materials.
 - Resistivity measuring tools, normal, induction, laterolog.
 - Reservoir and non-reservoir discrimination.
 - Matrix-sensitivity logs, GR, SGR, Pe.
 - Depth measurements and control.
 - Borehole calipers.
 - Porosity determination in clean formations.
 - Formation resistivity factor and conductivity of shales.
 - Porosity-mineralogy logs, density, neutron, sonic and porosity log cross-plots and mineralogy identification.
 - Saturated rock properties, Archie Equation, linear movable oil plot and reconnaissance techniques.
 - Logarithmic scaler and logarithmic MOP.
 - Porosity-resistivity cross-plots and permeability relationships.
 - Nuclear magnetic resonance.
 - Computerized log evaluation.
- Sidewall coring and well logging programs.



ONSHORE & OFFSHORE PIPELINE SYSTEMS

YOU WILL LEARN HOW TO

- Apply mechanical and physical principles to all phases of pipeline design, construction and installation processes.
 - Determine similarities and differences of onshore and offshore pipeline systems.
 - Incorporate onshore and offshore pipeline construction methods, pressure testing, start up/ commissioning into design of pipeline system.
 - Apply HS and environmental management regulations for effective design of pipeline systems.
 - Adopt technical competencies required to define pipeline routes and facilities location.
 - Identify the importance of fluid properties and process on pipeline systems design and construction.
 - Be cost effective during design, construction, inspection, operation and maintenance of pipeline systems.
- Incorporate design projects and principles as an integral component.

COURSE CONTENT

- General overview of pipeline systems.
- Pipeline system definition and application concepts.
- Design codes and standards related to pipelines.
- Pipeline hydraulics, such as, single phase gas and liquids flow, multiphase fluid flow and heavy/waxy crude.
- Design considerations for material strength, stability and installation procedures.
- Pipeline survey and mapping processes.
- Pipeline routing and engineering.
- Pipeline materials and integrated components.
- Corrosion and cathodic protection of pipeline facilities.
- Basic pipeline facility design considerations.
- Specialized design projects, covering risers, slug catchers, pigging and other facilities, etc.



- Pipeline construction for cross country projects and offshore systems.
- Pressure testing, pre-commissioning and commissioning processes.
- Reliability of pipeline integral aspects including in-line inspection.
- Leak detection, protection and emergency response.
- Maintenance and modifications considerations.
- Safety and environmental aspects.
- Policies and regulatory requirements.

CORROSION CONTROL IN OIL & GAS INDUSTRY

YOU WILL LEARN HOW TO

- Select materials and coatings for corrosion resistance for different applications and conditions.
- Conduct cathodic protection surveys.
- Select cathodic protection options and estimate current requirements.
- Design simple cathodic protection systems.
- Identify and utilize different corrosion inhibitors for different applications.
- Estimate the corrosivity of a given environment by analyzing chemical and physical properties and characteristics of a given system.
- Apply corrosion monitoring techniques and create an integrated monitoring program.
- Identify environmental conditions that influence corrosion.

COURSE CONTENT

- Overview of corrosion.
- Corrosion basics.
- Corrosion chemistry.
- Causes of corrosion, including: oxygen, carbon (IV) oxide, hydrogen sulphide (O₂, CO₂, H₂S and micro-biologically influenced corrosion).
- Materials selection and application.
- Cathodic protection systems.
- Protective coatings and linings.
- Chemical corrosive inhibitors.
- Detecting, monitoring and mitigation.
- Corrosion in oil and natural gas processing facilities.
- Typical environmental impacts.



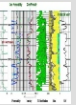
SEISMIC INTERPRETATION

YOU WILL LEARN HOW TO

- Comprehend the seismic process and interpret seismic streams.
- Develop a seismic geologic model and prepare base maps.
- Create a basic stratigraphic framework using seismic stratigraphic methods.
- Transmit the subsurface stratigraphy to well data.
- Identify different structural styles from seismic data and imaging.

COURSE CONTENT

- Basics of geological control on the propagation, reflection and refraction of seismic waves.
- Data acquisition and processing techniques.
- The potential impact of 2D and 3D interpretation techniques.
- The effect of seismic velocity.
- Seismic interpretation of structural styles including, compressional, extensional, inverted, strike-slip, salt and gravity dominated basins.
- Sequence stratigraphy and seismic facies analysis.
- Acoustic impedance, DHIS, AVO and analysis.



PETROLEUM PROJECT ECONOMICS & RISK ANALYSIS

COURSE CONTENT

- Introduction to petroleum economics & energy business environment
- Introduction to financial statements & measures of performance.
- Petroleum project management process
- Practical use of excel to model corporate financials
- Energy project economics & measures of performance
- Energy project, risk & uncertainty
- Probability theory & quantitative analysis
- Monte Carlo simulation
- Portfolio theory & real options
- Managing price risk using financial deliverables
- Stakeholder impact assessment & analysis

PLEASE NOTE: Instructors of this program accept examples from your company for analysis as one of the demonstration exercises during the training. Please do not hesitate to contact **Elcharions** for a list of information and support data required.

info@elcharions.com +234(84) - 814966, +234(81) 8478 8802, +234(80) 3544 1743

4 Easy Ways to Register:

www.elcharions.com and fill online registration form

Send your Name, Teller number, Program Option, Preferred Method of Training to:

2010petroleumprograms@elcharions.com

SMS your Name, e-mail, Teller number, Program option, Method of Training to: **+234 (81) 8478 8802**

Post: Mail Registration Form to: The Director, Int'l Petroleum & Gas Development Training,
P.O.Box 6902 Trans-Amadi Port-Harcourt, Nigeria.

□□□ **Scholarship Candidate Program Application @ N2, 500 and
Executive Candidate Program @ N265, 000 (inclusive of VAT) Payable in UBA PLC,
Acct Name: Elcharions Systems, Acct Number: 05090160000823**

Covering Certification, Manual, Equipment/Materials, Field trip/Support, Meals, Networking, Careers & others

Registration Closes 8th November, 2010

**A confirmation letter and invoice will be sent upon receipt of your course registration.
Only those Participants whose fees have been paid in full will gain admittance to the program**

