



COURSE OVERVIEW DE0512 Operating Production Wells & Associated Equipment

Course Title

Operating Production Wells & Associated Equipment

Course Date/Venue

Please see page 4

Course Reference

DE0512

Course Duration

Five days/3.0 CEUs/30 PDHs



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.

This course is designed to provide participants with a detailed and up-to-date overview of Operating Production Wells & Associated Equipment. It covers the production wells and their importance in upstream operations; the operating principles of production wells including the components and functions of wellhead equipment; the various operational modes, capacity calculations and optimization techniques; the key process parameters and various techniques for accurate data collection and analysis; maintaining daily logs and the importance of accurate record-keeping for operational efficiency; the detailed procedures for startup and shutdown; the preparation steps for maintenance handover; and the reinstatement procedures after maintenance.



Further, the course will also discuss the common malfunctions in production wells and wellhead equipment; the troubleshooting techniques and initial corrective actions; the effective communication and coordination strategies; the instrumentation and control systems used in production wells; the abnormal conditions and reporting protocols to panel operator; maintaining production wells and ensuring consistent production and operational efficiency; handling emergency situations and unexpected issues; and implementing special procedures as needed.





During this interactive course, participants will learn the process parameters analysis, advanced log management, standards for maintenance and reinstatement and operational optimization techniques; coaching others in well operations and developing training programs for new operators; the troubleshooting techniques and effective coordination with upstream and downstream teams; managing risks in production well operations and risk mitigation strategies; the techniques for continuous improvement in well operations; and the feedback loops and improvement plans.

Course Objectives

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

- Apply and gain systematic techniques and methods on operating production wells and associated equipment
- Discuss the production wells and their importance in upstream operations
- Explain the operating principles of production wells including the components and functions of wellhead equipment
- Apply various operational modes, capacity calculations and optimization techniques
- Discuss key process parameters and carryout various techniques for accurate data collection and analysis
- Maintain daily logs and discuss the importance of accurate record-keeping for operational efficiency
- Employ detailed procedures for startup and shutdown, preparation steps for maintenance handover and reinstatement procedures after maintenance
- Recognize the common malfunctions in production wells and wellhead equipment and apply troubleshooting techniques and initial corrective actions
- Apply effective communication and coordination strategies and discuss instrumentation and control systems used in production wells
- Identify abnormal conditions and reporting protocols to panel operator
- Apply daily tasks for maintaining production wells and ensure consistent production and operational efficiency
- Handle emergency situations and unexpected issues and implement special procedures as needed
- Carryout process parameters analysis, advanced log management, standards for maintenance and reinstatement and operational optimization techniques
- Coache others in well operations and develop training programs for new operators
- Apply troubleshooting techniques and effective coordination with upstream and downstream teams
- Manage risks in production well operations and implement risk mitigation strategies
- Implement techniques for continuous improvement in well operations including feedback loops and improvement plans



Exclusive Smart Training Kit - H-STK®



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 intermediate overview of operating production wells and associated equipment for drilling operations section leaders, field supervisors, drilling engineering supervisors, production engineers, reservoir engineers, well engineers, petroleum engineers, oil field consultant, well servicing/workover/ completion staff and field production staff.

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 Date/Venue

Session(s)	Date	Venue
1	April 19-23, 2026	Meeting Plus 9, City Centre Rotana, Doha, Qatar
2	June 14-18, 2026	Pierre Lotti Meeting Room, Movenpick Hotel Istanbul Golden Horn, Istanbul, Turkey
3	August 16-20, 2026	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
4	October 18-22, 2026	Meeting Plus 9, City Centre Rotana, Doha, Qatar
5	November 22-26, 2026	Crowne Meeting Room, Crowne Plaza Al Khobar, an IHG Hotel, Al Khobar, KSA
6	January 11-15, 2027	Salon Expo, NH Hotel Plaza de Armas, Seville, Spain
7	March 21-25, 2027	Meeting Room 4, Four Seasons Hotel Cairo at Nile Plaza, Corniche El Nil, Garden City, Cairo, Egypt

Course Fee

Doha	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.
Istanbul	US\$ 8,500 per Delegate + VAT. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	US\$ 8,000 per Delegate + VAT. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Al Khobar	US\$ 8,000 per Delegate + VAT. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Seville	US\$ 8,800 per Delegate + VAT. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Cairo	US\$ 8,000 per Delegate + VAT. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.



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

Haward's certificates are accredited by the following international accreditation organizations:

-  [British Accreditation Council \(BAC\)](#)

Haward Technology is accredited by the **British Accreditation Council for Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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.
-  [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.



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. Stan Constantino, MSc, BSc, is a **Senior Petroleum & Reservoir Engineer** with over **30 years** of **Offshore & Onshore** extensive experience within the **Oil, Gas & Petroleum** industries. His area of expertise include **Reserves & Resources**, **Reserves Estimation & Uncertainty**, **Reservoir Characterization**, **Unconventional Resource & Reserves Evaluation**, **Oil & Gas Reserves Estimation**, **Methods for Aggregation of Reserves & Resources**, **Fractured Reservoir Classification & Evaluation**, **Sequence Stratigraphy**, **Petrophysics & Rock Properties**, **Seismic Technology**, **Geological Modelling**, **Water Saturation**, **Crude Oil & Natural Gas Demand**, **Exploration Agreements & Financial Modelling**, **Seismic Survey Evaluation**, **Exploration Well Identification**, **Field Production Operation**, **Field Development Evaluation**, **Crude Oil Marketing**, **Core & Log Data Integration**, **Core Logging**, **Advanced Core & Log Integration**, **Well Logs & Core Analysis**, **Advanced Petrophysics/Interpretation of Cased Hole Logs**, **Cased Hole Formation Evaluation**, **Cased Hole Formation Evaluation**, **Cased Hole Evaluation**, **Cased-Hole Logging**, **Applied Production Logging & Cased Hole & Production Log Evaluation**, **Cased Hole Logging & Formation Evaluation**, **Open & Cased Hole Logging**, **Screening of Oil Reservoirs for Enhanced Oil Recovery**, **Enhanced Oil Recovery**, **Enhanced Oil Recovery Techniques**, **Petroleum Economic Analysis**, **Oil Industry Orientation**, **Oil Production & Refining**, **Crude Oil Market**, **Global Oil Supply & Demand**, **Global Oil Reserves**, **Crude Oil Types & Specifications**, **Oil Processing**, **Oil Transportation-Methods**, **Oil & Gas Exploration and Methods**, **Oil & Gas Extraction**, **Technology Usage in Industrial Security**; **Upstream**, **Midstream & Downstream Operations**; **Oil Reservoir Evaluation & Estimation**, **Oil Supply & Demand**, **Oil Contracts**, **Government Legislation & Oil Contractual Agreements**, **Oil Projects & Their Feasibility** (revenue and profitability), **Water Flooding**, **Reservoir Souring & Water Breakthrough**, **Reservoir Performance Using Classical Methods**, **Fractured Reservoir Evaluation & Management**, **Reservoir Surveillance & Management**, **Reservoir Engineering & Simulation**, **Reservoir Monitoring**, **Pressure Transient Testing & Reservoir Performance Evaluation**, **Reservoir Characterization**, **Reservoir Engineering Applications with ESP and Heavy Oil**, **Reservoir Volumetrics**, **Water Drive Reservoir**, **Reserve Evaluation**, **Rock & Fluid Properties**, **Fluid Flow Mechanics**, **PVT Analysis**, **Material Balance**, **Darcy's Law & Applications**, **Radial Flow**, **Gas Well Testing**, **Natural Water Influx**, **EOR Methods**, **Directional Drilling**, **Drilling Production & Operations**, **Field Development & Production of Oil & Gas**, **Wireline Logging**, **Mud Logging**, **Cased Hole Logging**, **Production Logging**, **Slick Line**, **Coil Tubing**, **Exploration Wells Evaluation**, **Horizontal Wells**, **Well Surveillance**, **Well Testing**, **Design & Analysis**, **Well Testing & Oil Well Performance**, **Well Log Interpretation (WLI)**, **Formation Evaluation**, **Well Workover Supervision**, **Pressure Transient Analysis** and **Petrophysical Log Analysis**. Currently, he is the **CEO & Managing Director of Geo Resources Technology** wherein he is responsible in managing the services and providing technical supports to underground energy related projects concerning **field development, production, drilling, reservoir engineering and simulation**.

Throughout his long career life, Mr. Stan has worked for many international companies such as the **Kavala Oil**, **North Aegean Petroleum Company** and **Texaco Inc.**, as the **Managing Director**, **Operations Manager**, **Technical Trainer**, **Training Consultant**, **Petroleum Engineering & Exploration Department Head**, **Assistant Chief Petroleum Engineer**, **Reservoir Engineer**, **Resident Petroleum Engineer**, **Senior Petroleum Engineer** and **Petroleum Engineer** wherein he has been managing the evaluation of exploration wells, reservoir simulation, development training, production monitoring, wireline logging and well testing including selection and field application of well completion methods.

Mr. Stan has a **Master's** degree in **Petroleum Engineering** and a **Bachelor's** degree in **Geology** from the **New Mexico Institute of Mining & Technology (USA)** and from the **Aristotelian University (Greece)** respectively. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership of Management (ILM)** and a member of the **Society of Petroleum Engineers, USA (SPE)**, **Society of Well Log Professional Analysts, USA (SPWLA)** and **European Association of Petroleum Geoscientists & Engineers (EAGE)**. Moreover, Mr. Stan published numerous scientific and technical papers and delivered various trainings, courses and workshops worldwide.



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 & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	Overview of Production Wells <i>Introduction to Production Wells and their Importance in Upstream Operations • Types of Production Wells: Vertical, Horizontal, Multilateral</i>
0930 – 0945	<i>Break</i>
0945 – 1030	Operating Principles of Production Wells & Wellhead Equipment <i>Detailed Description of Operating Principles • Components and Functions of Wellhead Equipment</i>
1030 – 1130	Operational Modes & Capacities <i>Various Operational Modes (Production, Shut-In, Injection) • Capacity Calculations and Optimization Techniques</i>
1130 – 1230	Daily Readings & Process Parameters <i>Key Process Parameters: Flow Rate, Pressure, Temperature • Techniques for Accurate Data Collection and Analysis</i>
1230 – 1245	<i>Break</i>
1245 – 1420	Recording & Registering Process Parameters <i>Best Practices for Maintaining Daily Logs • Importance of Accurate Record-Keeping for Operational Efficiency</i>
1420 – 1430	Recap <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i>
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0830	Operational Procedures & Standards <i>Overview of Standards for Normal Operations • Detailed Procedures for Startup and Shutdown</i>
0830 – 0930	Startup & Shutdown Procedures <i>Detailed Startup and Shutdown Procedures • Safety Considerations and Protocols</i>
0930 – 0945	<i>Break</i>
0945 – 1100	Handover for Maintenance <i>Preparation Steps for Maintenance Handover • Reinstatement Procedures After Maintenance</i>
1100 – 1215	System & Equipment Malfunctions <i>Common Malfunctions in Production Wells and Wellhead Equipment • Troubleshooting Techniques and Initial Corrective Actions</i>



1215 – 1230	Break
1230 – 1420	<p>Coordination with Maintenance Department</p> <p>Effective Communication and Coordination Strategies • Role of Maintenance in Ensuring Continuous Operations</p>
1420 – 1430	<p>Recap</p> <p>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</p>
1430	Lunch & End of Day Two

Day 3

0730 – 0830	<p>Instrumentation & Control Systems</p> <p>Overview of Instrumentation and Control Systems Used in Production Wells</p> <ul style="list-style-type: none"> Monitoring and Control Techniques for Optimal Performance
0830 – 0930	<p>Initial Troubleshooting & Reporting</p> <p>Identifying Abnormal Conditions • Reporting Protocols to Panel Operator (OP-1)</p>
0930 – 0945	Break
0945 – 1100	<p>Routine Operational Activities</p> <p>Daily Tasks for Maintaining Production Wells • Ensuring Consistent Production and Operational Efficiency</p>
1100 – 1215	<p>Non-routine Operational Activities</p> <p>Handling Emergency Situations and Unexpected Issues • Implementing Special Procedures as Needed</p>
1215 – 1230	Break
1230 – 1420	<p>Process Parameters Analysis</p> <p>Advanced Techniques for Analyzing Daily Readings • Identifying Trends and Making Data-Driven Decisions.</p>
1420 – 1430	<p>Recap</p> <p>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</p>
1430	Lunch & End of Day Three

Day 4

0730 – 0830	<p>Advanced Log Management</p> <p>Enhanced Methods for Logging and Analyzing Operational Data • Use of Digital Tools and Software for Log Management</p>
0830 – 0930	<p>Standards for Maintenance & Reinstatement</p> <p>In-Depth Understanding of Standards • Ensuring Compliance with Operational and Safety Standards</p>
0930 – 0945	Break
0945 – 1100	<p>Operational Optimization Techniques</p> <p>Techniques for Optimizing Production Well Operations • Implementing Best Practices for Maximum Efficiency</p>
1100 – 1215	<p>Coaching & Mentoring</p> <p>Techniques for Coaching Others in Well Operations • Developing Training Programs for New Operators</p>



1215 – 1230	Break
1230 – 1420	Troubleshooting Techniques In-depth Troubleshooting Methods for Complex Issues • Case Studies and Practical Exercises
1420 – 1430	Recap
1430	Lunch & End of Day Four

Day 5

0730 – 0930	Instrumentation & Control Systems (Advanced) Advanced Concepts in Instrumentation and Control • Latest Technologies and Innovations in Wellhead Control
0930 – 0935	Break
1000 – 1100	Coordination with Other Teams Effective Coordination with Upstream and Downstream Teams • Ensuring Seamless Operations Across Departments
1100 - 1140	Operational Risk Management Identifying and Managing Risks in Production Well Operations • Implementing Risk Mitigation Strategies
1140 – 1225	Break
1225 – 1330	Continuous Improvement Techniques for Continuous Improvement in Well Operations • Implementing Feedback Loops and Improvement Plans
1345 – 1400	Course Conclusion Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course



Simulators (Hands-on Practical Sessions)

Practical sessions 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 our state-of-the-art simulator “PROSPER”, “COMPASS” and “KAPPA” software.

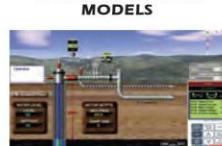


PROSPER



MULTIPHASE WELL AND PIPELINE NODAL ANALYSIS

WELL AND PIPELINE MODELS



FULLY COMPOSITIONAL

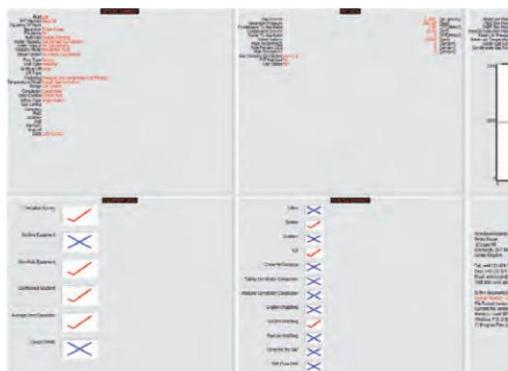


INFLOW/OUTFLOW RESPONSE

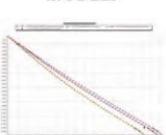


STEAM WELLS

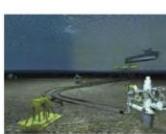




OUTFLOW (VLPs) MODELS



FLOW ASSURANCE

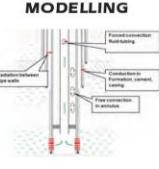




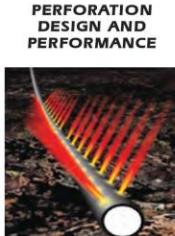
ARTIFICAL LIFT SYSTEMS



THERMAL MODELLING



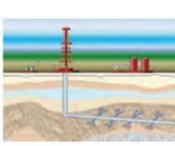
PERFORATION DESIGN AND PERFORMANCE



MULTILATERAL COMPLETIONS



INFLOW (IPRS) MODELS





The screenshot shows the COMPASS software interface. The main window displays a wellbore design labeled 'Design #1 (Prototype)' with a datum of 'Ground Level'. The 'Depth Information' section shows 'Datum: Ground Level', 'Datum Elevation: 0.0 ft', 'Air Gap (Ground): 0.0 ft', and 'Ground Elevation: 0.0 ft'. A coordinate system indicates 'North Ref' and 'Magnetic: 0.00°'. The left sidebar shows a tree structure for 'Project #2' with 'Site #1' and 'Well #1'. A 'Recent' section lists 'Design #1 (Company, Project #2, Site #1, Well #1, Wellbore #1)'. The top menu bar includes 'File', 'Edit', 'View', 'Analysis', 'Plot', 'Report', 'Tools', 'Window', and 'Help'. The status bar at the bottom shows 'Common Well Name', 'Unit System: API', 'Angles: °', 'Depths: ft', and 'Map: m'. A 'Landmark' dialog box is open, showing 'COMPASS Version (EDM 5000.14.0 (14.00.00.000)) Build 5000.14.0.83 © 2016 Halliburton. All rights reserved.' and 'Application Information' including 'USER INFORMATION' and 'MODULES/LICENSING' (EDM 0 out of 1 licenses in use - expiration Unknown). The dialog box also includes a 'System Information...' button and a 'Close' button.

COMPASS

The screenshot shows the KAPPA Ecrin v4.02.04 software interface. The main window displays a grid of data points. A 'Settings - Loading Data' dialog box is open, showing 'General' and 'Database' tabs. The 'General' tab contains settings for 'Load' (Decimal symbol: Use point, Number of lines / data initially read: 100), 'Index-driven access' (1 data every 1000 points, total 10000), and 'Wavelet Filtration' (If of data preloaded to set the filtration: 100000, Well test data maximum interpolation time: 1 sec, Hybrid interpolation time: 15 sec, Production data interpolation time: 5 min, Do not filter data at source ends: checked). The dialog box includes 'Default', 'Help', 'Cancel', 'Apply', and 'OK' buttons. The status bar at the bottom shows 'Ram=36MB - VM=10MB' and 'NUM'.

KAPPA Ecrin v4.02.04



The screenshot shows the KAPPA Saphir v3.10.10 software interface. On the left, there is a vertical toolbar with icons for 'Load Q', 'Load P', 'Extract dP', 'Model', and 'Improve'. The main window features a 'History plot' with a step-like graph. A 'New document - page 1/2 - Main options' dialog box is open in the center-right, containing fields for 'Test type' (Standard), 'Well Radius' (0.3), 'Pay Zone' (30), 'Porosity' (0.1), 'Fluid type' (Oil), 'Available rates' (IP), 'Reference time (t=0)' (09/10/2023, 12:00:00 AM), and 'Start with analysis' (Standard). At the bottom of the dialog are 'Help', '<< Back', 'Next >>', and 'Cancel' buttons. The status bar at the bottom right shows 'X Y Ram=41Mb - MV=10Mb NUM'.

KAPPA Saphir v3.10.10

The screenshot shows the KAPPA Emeraude v2.40.05 software interface. On the left, there is a vertical toolbar with icons for 'Application', 'Interface', 'Default Units', 'RECAL', 'Minimetrics', 'Interpretation', 'Multiple Probe Tools', 'Document', 'Survey', 'PVT Interpretation', 'PVT Interpretation', 'Special', and 'Output'. A 'Interpretation Settings' dialog box is open in the center, containing sections for 'Raw correlations' (Gas PVT, Oil PVT, Water PVT, Spinner calibration, Global regression), 'Liquid-Gas' (Dunn and Ross, Aziz and Goveir, Beggs and Brill, Atte, Dulker, Hagedorn - Brown, Cle slippage, Petalas and Aziz), 'Water-Hydrocarbons' (Nicolas, Chouquette, ABB - Deviated, Cle slippage), 'Slip deviation correction' (Linear, Ding et al.), and 'Default' (Dulker, ABB - Deviated). There are also checkboxes for 'Enable Friction Multiplier' and 'Enable access to material balance correction flag for Q3'. At the bottom of the dialog are 'Help', 'Cancel', and 'OK' buttons. The status bar at the bottom right shows '16:20:59 Mem 32MB - VM 10MB NUM'.

KAPPA Emeraude v2.40.05

Course Coordinator

Jaryl Castillo, Tel: +974 6652 9196, Email: jaryl@haward.org