

Learning at a distance

IHRDC provides innovative learning solutions for the Oil and Gas Industry.

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PAUL WOOD



In times of economic uncertainty and fluctuating oil prices, cost savings assume a high priority in the oil and gas industry. In-house training programmes can be expensive in their own right and made even more so by the associated travel time and costs. They are often among the first targets of company austerity drives. As a result, formal learning for many staff is put on hold. But if a company is to flourish and grow, these staff still need to be trained and given opportunities to develop their skills and knowledge.

Cutting costs and saving time
One means of making training more efficient and less expensive is distance learning, where company staff can use the Internet or other global communication methods to take training courses remotely. Learning can be done at the student's own location and at suitable times that fit in with operational demands. An extension of this approach, often called blended learning, involves first using electronic courses to help students achieve a baseline level of understanding, and then

Using e-Learning methods, staff throughout an oil company can be trained in key skills and learn about different facets of the industry without leaving their workplace.

following up with face-to-face learning at central facilities or on-site.

IHRDC (International Human Resources Development Corporation) offers such solutions through 'e-Learning' products and services. This organisation may be familiar to many in the oil and gas business as it introduced one of the early forms of distance learning through video-based tutorials and lectures. The corporation was therefore well positioned to move its electronic approach online once higher bandwidth and better browsers became available on the Internet.

Tim Donohue, IHRDC's Vice President of e-Learning Solutions, explains the company's philosophy: "There are three core elements to our learning portfolio," he says. "Instructional Programs, which are a blend of traditional classroom courses and interactive workshops mainly directed at management of the oil and gas business; our suite of modular e-Learning products; and Training Services focused on assessing and building workforce competency."

One of the advantages of the modular approach of e-Learning is that preparatory modules can ready people for more specialist, classroom-based courses by getting them all to the same level of understanding. Participants need only take the modules they require to deal with gaps in

their knowledge – more difficult to address in a classroom situation where the students may have varying levels of knowledge. Instructors can then be confident that all participants have the required level of understanding prior to attending the course.

Tailored learning

To cover the broad spectrum of oil industry e-Learning requirements, IHRDC offers a number of routes and methodologies. Its flagship product for upstream petroleum engineering and geosciences technology is IPIMS (International Petroleum Industry Multimedia System), consisting of two levels which it calls Background and Action Learning. The former has self-guided modules in the four primary disciplines of petroleum geology, geophysics, engineering and formation evaluation. Within these, there are many individually searchable topic areas that can, if desired, be integrated into the internal databases of client companies.

Action Learning takes students through simulated job assignments using actual data supplied by a major national oil

company. These assignments are similar to those that oil company staff would experience in their day-to-day work. Students can either continue the learning electronically, with on-line mentors, or follow a more 'blended' approach where the tuition is taken to workshops on clients' sites and tailored to their own requirements. At present there are 48 modules covering the range from reservoir management, drilling and well completion to production engineering and operations, and the company is currently building a number of additional modules for geosciences disciplines.

IHRDC also offers Petroleum Online, which provides an in-depth introduction to the oil and gas business. This is specifically designed for non-specialists who want an overview of the whole industry and the specific areas in which they will be working. An accounting firm with oil industry clients might make the modules available to their employees, for instance, while the IT staff in an oil and gas exploration company could learn more about the specific discipline areas for which they are providing support. Modules cover the full value chain, from a general overview of the industry through the Upstream, Midstream and Downstream sectors. For example, in the Upstream area, the module 'Petroleum Geology and the Exploration Process' covers the formation and occurrence of hydrocarbons and the

methodologies and tools used to find them, from reconnaissance to drilling an exploration well. A business game integrates the subject matter of all the modules.

It is also possible for technical staff to gain key business skills through the Business Essentials e-Learning modules, which cover finance, communications, human resource management and project management. Based on real-world industry examples, they are ideally suited to those progressing up the managerial ladder. And in addition to this wide range of e-Learning topics and products, IHRDC has just made available the Operations & Maintenance e-Learning library, a comprehensive resource of over 250 courses covering Process Operations, Health Safety & Environment, and Maintenance and Control Systems.

Managing competency

The glue that binds all these modules together is the CMS or Competency Management System, which offers a way to track the job competency requirements of companies against the learning and experience of their workforce, while allowing staff to discover skill gaps, identify suitable learning to close these gaps and provide opportunities for career growth. This learning may be from IHRDC or from other sources identified as better meeting the needs. The reporting systems can be ▶

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Traditional classroom learning, like this at Shell Upstream Learning Centre, The Netherlands, can be supplemented by e-learning tailored to individual needs.



Shell International

used for individuals, groups or an entire organisation.

“Of course, we realize that individual distance learning isn’t everything”, says Tim Donohue. “There is also great benefit to be drawn from working in groups in a classroom environment and exchanging ideas and experiences. We work with clients who want the blended approach, with some e-Learning and then, maybe, a team-based Action Learning event. We can provide tutors or train up client facilitators”.

How does it work?

All of the e-Learning modules are SCORM (Sharable Content Object Reference Model) compliant, which is a system of standards and specifications for web-based e-Learning. This means that the IHRDC modules can interface with the computer systems and Learning Management Systems that many companies use to manage their learning programmes. The content works on standard web browsers and uses generally available plug-ins like Flash video or WMV and the modules can be run from IHRDC servers or on client intranets. All of the modules are available in English, and many are available in other languages such as Spanish, Portuguese, Arabic, Russian, and French. More will become available over time.

IHRDC, together with Nautilus and NEXt, is a member of the Plato Alliance. This group was formed as a Schlumberger initiative after they had been using the IPIMS products. It brings together three of the world’s leading E&P learning providers to offer a comprehensive integrated portfolio of products. It also aims to bring a greater experience pool together to help solve problems of the future, such as acquir-

ing the new skill sets and technology understanding needed in unconventional plays.

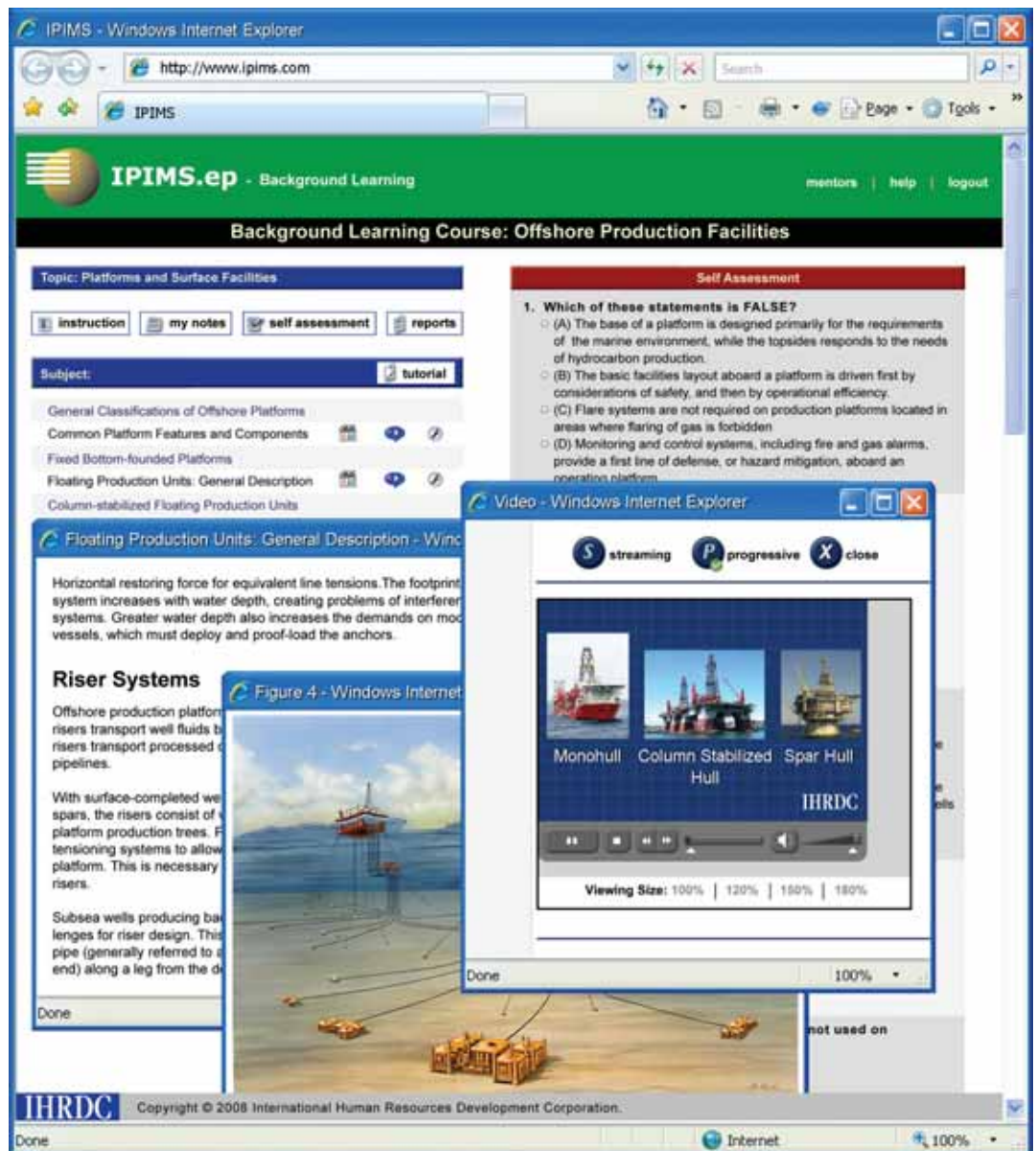
Henry Edmundson, Director of Petro-technical Expertise at Schlumberger and founder of the Plato Alliance, says that “over 2,000 petro-technical professionals in Schlumberger actively use IPIMS for self-study through the Internet. It’s a very valuable component of their learning portfolio. And having IPIMS as part of the Plato Alliance offering is proving equally attractive to oil and gas companies worldwide.”

Remaining challenges

Tim Donohue concludes; “as well as meeting the need for skills for the future, which we are approaching through bodies like the Plato Alliance, we also have challenges with our current offerings. In

the past few years, Internet speeds and capacities have improved to the point where our product line can be offered globally, on-line. But now we are looking at how we can deliver e-Learning to places where the Internet isn’t possible or even onto new platforms like the slim tablet. To this end, we have, for example, been installing modules on clients’ remote systems, such as seismic acquisition vessels.”

One thing remains certain: in a world of ever-increasing energy demand, but where resources are becoming scarcer and more difficult to locate, acquiring the skills to find and produce those resources will be more vital than ever before. And in a financially constrained world, where time and money are also critical, e-Learning looks set to have a bright future. ■



e-Learning allows staff to plug gaps in their knowledge at their own pace.

IHRDC was founded in 1969 on a commitment to offer oil and gas companies the very best in training and competency development. In the nearly four decades since then, from both our Boston headquarters and our offices around the world we have set a worldwide example of excellence through our Instructional Programs, e-Learning Solutions and Training Services.



WORLDWIDE LOCATIONS

IHRDC/CORPORATE HEADQUARTERS

535 Boylston Street, 12th Floor Boston, MA 02116 USA
Tel: 1.617.536.0202
Fax: 1.617.536.4396
Email: corporate@ihrdc.com

IHRDC/HOUSTON

2500 CityWest Blvd., Suite 300
Houston, TX 77042
Tel: 1.617.456.3409
Email: houston@ihrdc.com

IHRDC/AMSTERDAM

Coen de Koninglaan 35
1135CM Edam, The Netherlands
Tel: 31.299.373480
Email: amsterdam@ihrdc.com

IHRDC/CAIRO

55, Road 206, Digla, Maadi, Cairo, Egypt
Tel: 20.22.519.7275; 20.2.519.7274
Fax: 20.22.519.7274
Email: cairo@ihrdc.com

IHRDC/JAKARTA

Villa Melati Mas Block i.12a No. 12
Serpong 13250
Tangerang, Banten, Indonesia
Tel: 62.21.68299480
Fax: 62.21.5372392
Email: jakarta@ihrdc.com

IHRDC/LAGOS

Plot 93, Block 14, Akanbi Disu Street
Off Otunba Adedoyin Ogunbe Crescent
Lekki Phase 1, Lagos, Nigeria
Tel: 234.803.301.4101
Email: lagos@ihrdc.com

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