SPE has been organising its flagship Deepwater Workshop in India since 2008, and this year marks the ninth edition.

From 2005 to 2014, oil and gas companies across the hydrocarbon value chain enjoyed a boom in activities. Despite many technological and HSE-related challenges, deepwater development activities during the period also expanded. With the recent downturn, there is huge pressure to reduce costs and increase process efficiencies, as the E&P fraternity collaborates and innovates to find solutions to the major technological, commercial, and environmental challenges of the industry, including deepwater.

In the downturn, capital spending by most of the operators have been reduced but there is a silver lining in India. As per one of the studies, India’s energy consumption will grow by 4.2% per annum till 2035 against a global average of 1.4% per annum. India’s robust economic growth coupled with low oil prices has increased the demand for refined products substantially. In order to fuel economic growth, the government has also taken various policy and administrative initiatives to enhance hydrocarbon exploration and production activities, such as i) announcement of uniform licensing system ‘HELP’ (Hydrocarbon and Exploration Licensing Policy), ii) marketing and pricing freedom for new gas production from deepwater, ultra deepwater and high pressure, high temperature areas subject to certain conditions, etc. Through these measures, it is expected that 40 billion USD of hydrocarbon will be unlocked for production. However to realise this, investment of more than 25 billion USD will be required in the next 2 to 3 years.

Major oil companies in India such as ONGC and Reliance Industries Limited are making progress in exploration and development of deepwater blocks awarded under NELP round of bidding. ONGC has already submitted an FDP to the Indian Authority for the development of cluster-2 of its prolific deepwater block KG-DWN-98/2 at a total expenditure of USD 5.07 billion. Reliance Industries Limited has also planned an investment to the tune of USD 6 billion for producing more hydrocarbon from their blocks KG-D6 and NEC-25.

In view of the above and considering the potential opportunity India has provided to the upstream E&P industry, the theme of the workshop has been kept as “The India Opportunity—Innovate, Collaborate, Accelerate.” The workshop will concentrate more on strategic optimisation, opportunities in deepwater areas of activities. Two interesting breakout sessions have also been dedicated to the theme of the workshop where participants will discuss and suggest a possible way forward.

Source: GE Oil & Gas

Committee Members

Chairperson
T.K. Sengupta
ONGC

Co-Chairperson
Suhaill Kak
Shell

Marin Abelanet
Subsea 7

Ashish Bhandari
GE Oil & Gas

Ranajit Chakraverti
Transocean

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Ajay Ghapure
Aker Solutions

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Sunitha Kesavan
BP-India

Sunil Kumar
ONGC

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Saipem

Jayant Malhotra
Schlumberger

George Mathew
ABS Industrial Verification

Juju Mathew
Technip-India

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Weatherford

Dileep Penmetsa
Wood Group Kenny

Jana Rajeshwaran
OneSubsea

Ashish Rawal
Results Engineering

Arunabha Sen
McDermott

Riyaz Shaikh
AI Mansoori Specialized Engineering

P.K. Verma
Reliance Industries Limited

Register by 6 September 2016 to avoid late fees.
Field development planning studies provide the necessary information and advice for:

- Establishing whether or not a project is economic
- Short-listing development project options by screening
- Selecting an optimal development concept for a project

Recognising the importance and complexities in concept selection, proven approach and a structured framework to ensure the correct decision is made; are some factors that are given top priority.

These early phases of a project are where most value is either created or lost. Poor decisions at this stage will have an adverse impact on the project and cannot be recovered in the project execution. Therefore, it is vital to ensure that all the potential contributors to the value of the project are considered and quantified, i.e., the reserves, schedule, availability of resources, maximum recovery, flexibility, safety, environmental, project risk and uncertainty.

This session will discuss all the finer aspects and challenges involved in making field development choices and concepts that provide maximum value for the project.

1500–1530 | Coffee Break and ePoster Session
1530–1700 | Session 4: Well-Design and Engineering
Session Chair: Ranjit Chakraverti, Transocean; Subhamoy Mukherjee, Baker Hughes

Over 150 deepwater wells in India have been drilled offshore in the last decade and the hope remains to mainly explore the sedimentary basins in India offshore. Considering the current market scenario, with the policy changes on the gas price, the focus will now be to develop and produce in the most economical manner. This session will focus on well design and engineering with a view to explore innovative solutions for reducing the cost per well and the drilling of reliable wells faster and without complications. Furthermore, it would also focus on ways to improve the planning and execution of the well construction process.

1700–1830 | Breakout Group Discussion
Break-out Group Facilitators: Ranjit Chakraverti, Transocean; A. Reghu Padmanabhan, Weatherford

Discussion leaders will be selected to lead a breakout group based on the topics derived from discussion during the workshop sessions and attendees will be requested to select their preferred discussion group for the breakout session to maximise the opportunity to interact with other participants.

1830–1930 | ePoster Presentations
1930–2100 | SPE South Asia Regional Awards & Workshop Gala Dinner

FRIDAY, 7 OCTOBER 2016

0830–0900 | Welcome Coffee
0900–1100 | Session 5: Subsea Architecture
Session Chairs: Ashish Bhandari, GE Oil & Gas; Bruce Wilson, Shell

In line with the proposed theme of the workshop, this session focuses on the subsea architecture challenges and opportunities specific to India. While oil price continues to be volatile, some predictability around gas price from deepwater subsea fields helps operators with the field economics; yet some fundamental architecture challenges remain, which will be addressed in this session:

- Ideas for optimising subsea architecture for future expansion in...
case of phased development. Tie-ins, spare slots, expandable designs and more.

- Case for ‘standard’ products meeting functional specifications versus ‘bespoke’ products designed to prescriptive engineering. Specific reference to trees, control systems, manifolds and subsea connectors.
- Industry standards most relevant to subsea development in Indian conditions for trees and controls.
- Optimising interfaces with SURF, especially the design of UTAs, PLETs, umbilical and manifolds.
- Provisioning for the future, case for having extra sensors, power, etc. for catering to digital solutions available today, tomorrow and 10 years later.
- Upfront design of subsea architecture to make it easier to have low cost interventions during life of field.
- Skill India and Make in India—as applicable to subsea field developments in the east coast.

**1030–1100 | Working Coffee Break**

**1100–1230 | Breakout Group Discussion**

**Break-out Group Facilitators:** Marlin Abelanet, Subsea 7; Jana Rajeshwaran, OneSubsea

Discussion leaders will be selected to lead a breakout group based on the topics derived from discussion during the workshop sessions and attendees will be requested to select their preferred discussion group for the breakout session to maximise the opportunity to interact with other participants.

**1230–1300 | Luncheon**

**1330–1500 | Session 6: Project Management**

**Session Chairs:** Jayant Malhotra, Schlumberger; Arunabha Sen, McDermott

In today’s cost constrained environment major subsea EPCO projects pose unprecedented risks and challenges that are to be managed with a different approach. Special attention needs to be focused on a step-by-step change in the management thought process, meanwhile, interface management has become a major and dedicated discipline. Responses to these particular challenges demand a detailed and custom-made partnership between contractors of diverse cultures and specialisation to overcome the schedule and cost over runs. Concept and engineering should increasingly focus on constructability and IMR (inspection, maintenance, and repair) procedures of the operator/country. Emphasis on rigorous and detailed management of supply chain and maximising local content with proven expertise is a complicated balancing act while redundancy/float in completion, assets, people, execution plans require greater attention to detail. Today there is a greater emphasis on soft skills for project management, HSE, people development and the project’s vision.

**1500–1530 | Coffee Break and ePoster Session**

**1530–1630 | Valedictory Session**

**1630–1700 | Workshop Summary and Vote of Thanks by SPE**

**End of Workshop Sessions**

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**GENERAL INFORMATION**

**Format** – Two days of informal discussions prompted by selected keynote presentations and discussions. Focused topics and issues critical to advancing both technology and best practices. Majority of the presentations are in the form of case studies, highlighting engineering achievements, and lessons learnt. In order to stimulate frank discussion, no proceedings are published and the press is not invited to attend.

**Documentation**
- Proceedings will not be published; therefore, formal papers and handouts are not expected from speakers.
- Work in progress, new ideas, and interesting projects are sought.

**Poster Session** – The Steering Committee encourages registrations from professionals who are able to prepare and present a poster on a relevant project.

**Attendance** – Registrations will be accepted on a first-come, first-serve basis. The Steering Committee encourages attendance from those who can contribute effectively either in discussions or with posters.

**Workshop Deliverables**
- The Steering Committee will appoint a “scribe” to record the discussions and to produce the full workshop report for SPE.

**Commercialism** – Commercialism in posters or presentations will not be permitted.

**Attendance Certificate** – All attendees will receive an attendance certificate attesting to their participation in the workshop.

**Continuing Education Units** – Attendees at this workshop qualify for SPE Continuing Education Units (CEU) at the rate of 0.1 CEU per hour of the workshop.

**Registration Information** – This is a nonresidential workshop and therefore hotel accommodation is not included in the registration fees. The registration fees include all workshop sessions, coffee breaks, and luncheons.

**Cancellation and Refund Policy**
- A processing fee of USD 100 will be charged for cancellations received before the registration deadline 6 September 2016.
- For cancellations received after the registration deadline, 6 September 2016, 25% refund will be made to the registrant.
- No refund on cancellations received within seven (7) days prior to the workshop date, i.e. on or after 29 September 2016.
- No refund will be issued if a registrant fails to attend the workshop.

**Registration Policy**
- Registration fee MUST be paid in advance for attending the Applied Technology Workshop.
- Full fixed fee is charged regardless of the length of time that the registrant attends the workshop.
- Fixed fee cannot be prorated or reduced for anyone (workshop co-chairpersons, committee members, speakers, discussion leaders, students, and registrants).
- Delegates with no proof of advance payment are required to pay on site by cash or cheque, present a copy of the wire transfer, or submit a letter from their company guaranteeing payment of the workshop fees.

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**SUPPORTER INFORMATION**

Sponsorship support helps offset the cost of producing workshops and allows SPE to keep the attendance price within reach of operations-level individuals, those who benefit most from these technical workshops.

Sponsors benefit both directly and indirectly by having their names associated with a specific workshop. While SPE prohibits any type of commercialism within the workshop hall itself, the society recognises that sponsoring companies offer valuable information to attendees outside the technical sessions.

**SUPPORTER CATEGORIES**
Sponsorships are offered on a first come basis. Please contact SPE to verify the availability of a particular sponsorship. Existing sponsors have the opportunity to renew the same level of sponsorship for annual workshops.

**SUPPORTER BENEFITS**
In addition to onsite recognition; SPE will recognise sponsors on the SPE website and in all printed material for the workshop. Based on the sponsorship selected, sponsoring companies also receive logo visibility on promotional workshop items.

**FOR MORE INFORMATION**
For a detailed list of available sponsorships, including benefits and pricing, contact Khushbu Rajwani at krajwani@spe.org.
REGISTRATION FORM

SPE Deepwater Workshop:
The India Opportunity—Innovate, Collaborate, Accelerate

6–7 October 2016       Hyatt Regency Hotel | Mumbai, India        www.spe.org/go/16amum

Attendance is limited and is not guaranteed. Early registration is recommended. Please print or type in black ink.

IMPORTANT:
Registration fee MUST be paid in advance for attending the workshop.

WORKSHOP FEE:
National (Indian Nationals based in India)
SPE Members:
☐ Before 6 September = USD 450
☐ After 6 September = USD 485
Nonmembers:
☐ Before 6 September = USD 485
☐ After 6 September = USD 515

International (Indian Nationals based outside India and Non-Indian Nationals based in or outside India)
SPE Members:
☐ Before 6 September = USD 700
☐ After 6 September = USD 1000
Nonmembers:
☐ Before 6 September = USD 800
☐ After 6 September = USD 1300

Workshop fee includes:
Technical sessions, materials, daily coffee breaks and luncheons, certificate of Continuing Education Units (CEU), and welcome reception and dinner (if applicable). Accommodation is NOT included in the workshop registration fee.

IMPORTANT: All SPE Middle East rates are net of taxes. The fees in this form do not include any local or withholding taxes. All such taxes will be added to the invoice.

Fax or email the completed registration form with payment or credit card information to:
Online: www.spe.org/go/16amum
Email to: registrationdubai@spe.org
Telephone: +971 (4) 457 5800
Fax: +971 (4) 457 3164

Visa: SPE Middle East, North Africa, and South Asia will assist in providing a visa invitation letter, upon request in writing, to confirmed registrants after receiving full payment of registration fees. Visa invitation letters take five days to issue from the date of request and it is the delegate’s responsibility to obtain their own visa. SPE cannot issue the visa nor can we guarantee it will be obtained.

Questions: Contact Khushbu Rajwani, Event Manager, at krajwani@spe.org.

To submit your registration online, please visit the event’s website, www.spe.org/go/16amum. Alternatively, you can email this form to registrationdubai@spe.org or fax it to +971.4.457.3164.