

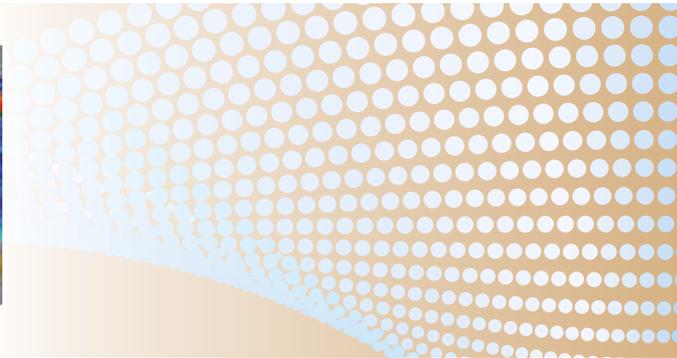
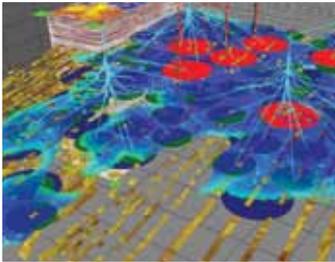


Society of Petroleum Engineers

19–22 June 2012 | The Leela Palace Bangalore | Bengaluru, India

SPE Applied Technology Workshop

Intelligent Fields: Making Them Happen



**Early Bird Registration Deadline:
19 May 2012**

Who Should Attend

Experienced individuals who will actively share their own case histories, experiences, and will actively contribute to the discussions. We expect participation from professionals involved in design for improved oil recovery, field development, drilling and well technology, operations, as well as, production and process engineers, reservoir and well stimulation engineers, geologists, geophysicists, petrophysicists, HSSE experts, and economists.

Committee Members

Chairman

Sudhir Vasudeva, ONGC

Co-Chairperson

John Hoppe, Shell

Co-Chairperson

Balakrishna D.R., Infosys

Vamsee Achanta, 2H Offshore

Saeed AlMubarak, Saudi Aramco

Avinash Bohra, Cairn India

Chetan Chavan, Cairn India

Prakash Deore, Fujitsu Consulting India

Ashok Dixit, Weatherford

James Dwyer, Baker Hughes

Tony Edwards, Stepchange Global

Doug Finley, Well Dynamics

Philippe Flichy, IO-Hub

Sudipta Gautam, Accenture

David Goodridge, Global Artificial Lift

Rod Heard, Zedi

Neelakhantan Iyer, Infosys

Younes Jalali, Schlumberger

Arun Kumar R., Infosys

Hemant Kumar, Wipro Oil & Gas Consulting

Vineet Lasrado, Wipro

James Lau, Shell

Stewart Macindoe, Baker Hughes

Tom Moroney, SEPCO, Upstream Americas

Harit Naik, Halliburton

Olukayode Olaitan, Shell PDC

Ashutosh Pasricha, Schlumberger

Atul Rathod, Weatherford

Surya Rajan, IHS CERA

Chanpreet Sahni, Halliburton

Pallav Sarma, Chevron

Workshop Description

Intelligent fields are a reality. The technologies are available today; unit costs have fallen relative to overall development costs; reliability and durability have improved enabling capture of more of the benefits, so why haven't intelligent fields taken off and become the norm? The reasons have less to do with the technology per se, and more to do with the complexity of the organisational footprint and stakeholder relationships required to implement, operate, and continuously improve the performance of intelligent fields.

The technologies, particularly the well technologies, used for most of the early implementations were suitable only for new wells, limiting their application to green fields or relatively limited "new" extensions of existing brown field developments. More recently, technologies that can be retrofitted to existing wells are widening the scope, but application later in the life of a field, particularly once it is declining, offers reduced benefits. Hence the opportunities for intelligent field developments remain somewhat limited.

New skill sets are required to deliver the necessary integration. Whilst some of the larger operators have many of these skills already in-house, and some of the E&P service providers are moving into this space, there is a new breed of systems integrators growing out of the IT service companies into the E&P domain. In the downstream sector, "intelligent" refineries are the norm, and there is much to be learnt from their success, not least in terms of their organisation and staffing models. New players, new ways of working, and new contracting models all play a role in slowing uptake.

This workshop will bring together operators, technology (service) providers, and systems integrators to share their experiences and distill the key learnings and critical success factors needed to make intelligent fields happen.

www.spe.org/events/12ablr

Intelligent Fields: Making Them Happen

Supporting the Event

Supporting the event 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.

Supporters benefit both directly and indirectly by having their names associated with a specific workshop.

While SPE prohibits any type of commercialism within the conference hall itself, the society recognises that supporting companies offer valuable information to attendees outside the technical sessions.

Supporter Categories

Supporters 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 support for annual workshops. Supporter packages remaining are as follows:

- Gold Supporter
- Silver Supporter
- Bronze Supporter
- Gala Dinner Entertainment
- Speaker Gifts
- Workshop Luncheons—Per Day
- Workshop Coffee Breaks—Per Day
- Audio-Visual Equipment Supporter

Supporter Benefits

In addition to onsite recognition, SPE will recognise supporters on the SPE website and in all printed material for the workshop. Based on the category selected, sponsoring companies can also receive a selected number of complimentary local registrations.

For More Information

For a detailed list of available categories, including benefits and pricing, contact Loreen Nisha at lnisha@spe.org.

**SAVE BY
REGISTERING
BEFORE
19 MAY 2012**

Tuesday, 19 June 2012

1600–1700 hours	Final Steering Committee Meeting
1700–1800 hours	Speaker/Session Chairman Meeting
1800–1900 hours	Registration
1900–2100 hours	Welcome Cocktail Reception

Wednesday, 20 June 2012

0900–1030 hours **Session 1: Where Are We Today—The Operators' Experience**

This session will draw on the experiences of various operators to illustrate the different types of business decisions faced by a major national oil company, a major international oil company and a smaller independent oil company in seeking to successfully implement and operate an intelligent field. Differences in organisation and in-house capability lead to different choices of contracting and partnering strategies. These in turn affect the choice of specific technologies and the resulting costs and benefits that accrue. In addition, a company's appetite for different risk/reward profiles will influence their choice of opportunity.

As day-to-day control becomes more remote from the operation, safety and (data) security issues grow. Data and control flows across more organisational interfaces, in extreme cases across national boundaries, requiring suitable protocols and regulatory agreements. As more and more fields become intelligent, their requirements will drive changes to organisations and ways of working. We can learn what these changes may bring from current experience.

1030–1100 hours	Coffee Break/Posters/Tabletops
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1100–1230 hours **Session 2: Where Are We Today? The Service Providers' Experiences—Panel Session**

In today's era of modernising and making oilfields intelligent, nimble, and cost effective, it takes more than two-to-tango. While we are still successfully operating onshore mature fields, we are constantly pushing the boundaries of offshore E&P everyday to harness the essential commodities of oil and gas. In parallel, we are exploring and exploiting opportunities in unconventional accumulations of CBM, shale gas, gas hydrates, etc. So effectively there are more and a higher density of oil and gas wells, more E&P operators, and even more service providers than ever before. There are companies who own the assets but not the technology, there are companies who develop and/or provide the technology, and then there are a new breed of companies who are adding value by integrating various systems for the operators as well as the technology providers. This is the smart new world of people, process, technology, and how all of them are coming together to provide value in the most efficient and cost effective manner to the oil and gas industry. This is the beginning of true intelligence at work. In this panel session we will hear various perspectives from service providers, technology integrators, and technology generators.

1230–1330 hours	Luncheon
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1330–1500 hours **Session 3A: Existing and Emerging Technologies**

The E&P industry is on the threshold of a "New Energy Future" with growing energy demand expected to double by mid-century. This change will pose challenges and at the same time provides great opportunities to the energy industry, with a greater pace of technology development than ever before. Integrated technology, engineering, and IT solutions will dominate in future oil and gas projects. Since many E&P processes are data intensive and multi-disciplinary, there is an opportunity for E&P companies to critically examine efficiency in their data analysis, interpretation, and decision making to unlock hidden value.

Current and emerging technologies are critical enablers in responding to the new energy challenges.

This session will focus on key current and emerging technologies in intelligent fields today and in the future:

- Sensing and control from fiber technologies to advanced surface and downhole controls
- Digital well and reservoir management to unlock more oil/gas potential
- Intelligent optimisation and advanced monitoring to capture higher production with lower cost
- Collaboration, data, and knowledge management to close the value gap
- Big data, cloud, nanotechnology, etc. to leverage on the new IT frontiers

1500–1530 hours	Coffee Break/Posters/Tabletops
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1530–1700 hours **Session 3B: Existing and Emerging Technologies...Continued**

1800–2100 hours	Gala Dinner
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Thursday, 21 June 2012

0900–1030 hours **Session 4: Case Histories**

Intelligent field technologies have evolved significantly since the first implementations and offer a wide array of possible applications. This session will highlight a number of examples that were implemented successfully and generated considerable value. The case studies will cover the real world application of intelligent field concepts in the areas of production enhancement, improved recovery, and reservoir management. The case histories will bring out how increased value was generated by implementation of one or more of the following technologies:

- Remote control of downhole equipment
- Improved integration of data and work practices
- Real-time well monitoring and production optimisation
- Data acquisition and security
- Process and pipeline systems monitoring

1030–1100 hours	Coffee Break/Posters/Tabletops
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1100–1230 hours **Session 5: Vision 2020 and Beyond—Panel Session**

High-end visualisation and quick response mechanisms have brought immense changes in the way the intelligent field concept is thought of. Development of intelligent fields has surely played an important role in field optimisation by gathering and better managing information, and utilising smart software with astuteness to alert operators of developing complications. However, there has been very limited large scale implementation of smart systems in intelligent fields because of high cost. Distributed geographies and high volumes of streaming data pose pronounced challenges in monitoring assets and force us to look beyond the normal. The challenge is to rationalise and make sense of the information in real-time from different geographies, analyse various scenarios, and maximise the profits for today and the future. This panel session will guide you through our vision for 2020 and beyond in making intelligent fields happen.

1230–1330 hours Luncheon

1330–1500 hours **Session 6: Challenges: Business Environment**

In the past decade, the oil industry has realised business value for their assets by using automated, real-time control systems, optimised design and operation, minimising human intervention, and by facilitating faster decision making processes. Many more challenges exist, as a result of which the oil and gas industry lags behind when compared with other industries such as space or communications. These challenges are road blocks hampering the industry adopting intelligent field technologies. This session will build on the experience of other industries to highlight the challenges the oil and gas industry has been facing and must overcome in order to catch up and widely implement intelligent fields. These challenges include:

- How to define most realistic business objectives
- Creating alignment with governmental policies
- Developing more flexible industry strategies
- Unsettled regional politics adding cost
- Regional politics impacting in-well and in-field infrastructure development and management
- Degree of maturity to handle and implement organisational policies
- Effect of stringent HSE regulation (post Macondo) on quick and appropriate decision making
- Thin lined collaboration due to restrictions on knowledge and profit sharing
- Balancing an untrained work force versus usage of high end technologies
- Transferring knowledge from a very limited trained work force to a new and different generation of professionals
- Managing knowledge over the product life cycle as a key to success

Insights into how to deal with these challenges will be presented with practical suggestions of how to accelerate the speed of growth of the industry.

1500–1530 hours Coffee Break

1530–1700 hours **Session 7: Challenges: Technology**

Intelligent oilfield concepts currently require huge investments such that the cost-benefit analysis is unattractive even for large oil companies. Worldwide, researchers are working on new models trying to simplify the intelligent oilfield concepts to extend their reach. Many large ambitious intelligent oilfield programmes are derailed due to technology, process, and adaptability challenges. Some of the key technology factors affecting adaptability are:

- Inherent complexity of diverse information
 - Lots of data, but few analytic tools to provide the required information at the right time
 - Lack of solutions to increase the interoperability of information across all stakeholders
- Monolithic blocks of solutions restricted within asset boundaries, constrained by change management challenges
- Lack of standardisation and effective integration of available data leading to poor extraction of relevant information from the available data
- Need for fool proof data security standards allaying concerns to share relevant knowledge and information

The technology challenges session will focus on solution approaches for challenges around data interoperability, data and application securities, and process safety and asset integrity.

Friday, 22 June 2012

0900–1030 hours **Session 8: Key Learnings–Breakout Session**

The technical sessions in this workshop are designed to highlight various challenges, applicability, and the experiences showcased by the operators and services companies to facilitate implementing intelligent field technologies. The sessions reiterate the importance of operators, oil field services companies, and the new IT services companies to work together to address some of the most complex industry issues. This breakout session is designed to deliberate the key technical and business challenges discussed in the various sessions during the first two days. The participants will be divided into groups to deliberate further on the challenges and discuss the key take aways from the various sessions. The deliberations by the groups will provide key inputs to the final session which will pull together the key messages and solution approaches from the workshop to facilitate economically feasible options for oil companies to implement intelligent fields.

1030–1100 hours Coffee Break/Posters/Tabletops

1100–1230 hours **Session 9: How Do We Make It Happen–Panel Session**

Technology adoption typically occurs in an S curve, as modelled in 'diffusion of innovations' theory, pioneered by Everett Rogers. Intelligent field technologies have been with us for a number of years now, and there is a growing feeling we are moving beyond the 'bleeding edge' stage, where innovators and early adopters have shown the technology has high potential but haven't demonstrated its value or settled down into any kind of consensus, into the 'leading edge' stage, where the technology has proven itself in the marketplace but is still new enough that it is difficult to find knowledgeable personnel to implement or support it.

How can we drive our business, customers, and service providers forward into the next 'state-of-the-art' stage where everyone agrees that a particular technology is the right solution?

Our expert panelists will share their experiences in implementing intelligent field technologies, describing what has worked for them, the lessons learnt, critical success factors, and how best to make the business case for an intelligent field opportunity.

1230–1330 hours Workshop Conclusion

1330–1430 hours Luncheon

General Information

Workshop Venue

The Leela Palace Bangalore

23 Airport Road

Bengaluru 560008

Tel: +91.80.2521.1234

Fax: +91.80.2521.7234

Website: www.theleela.com/hotel-bangalore.html

Workshop Guidelines

Format

Two and a half (2.5) days of informal discussions prompted by selected keynote presentations and discussions. Workshops maximise the exchange of ideas among attendees and presenters through brief technical presentations followed by extended Q&A periods. Focused topics attract an informed audience eager to discuss issues critical to advancing both technology and best practices. The 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.

Breakout Sessions

Attendees will be assigned to discussion groups on a random basis for the breakout sessions to maximise the opportunity to interact with other participants.

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.
- Professionally-prepared visual aids are not required; however, PowerPoint presentations are most commonly used.
- Note-taking by participants is encouraged.

Poster Session

The Steering Committee encourages registrations from professionals who are able to prepare and present a poster on a relevant project. For further details kindly contact Khushbu Rajwani, senior event assistant, at krajwani@spe.org.

Attendance

Registrations will be accepted on a first-come, first-serve basis. The Steering Committee encourages attendance from those who can contribute to the workshop most effectively either in discussions or with posters. A mix of attendees in terms of geographic origin, companies, and disciplines will be encouraged.

Workshop Deliverables

- The Steering Committee will appoint a "scribe" to record the discussions and to produce the full workshop report for SPE.
- This report will be circulated to all attendees as the workshop deliverable within 4–6 weeks following the workshop. The copyright of the report is with SPE.
- PowerPoint presentation materials will be posted on a specific SPE URL address after the workshop. Provision of the materials by the speakers will signify their permission for SPE to do so.

Commercialism

In keeping with ATW objectives and the SPE mission, commercialism in posters or presentations will not be permitted. Company logos must be limited to the title slide and used only to indicate the affiliation of the presenter and others involved in the work.

Attendance Certificate

All attendees will receive an attendance certificate attesting to their participation in the workshop. This certificate will be provided in exchange for a completed Workshop Questionnaire.

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.

PLEASE USE INSIDE FORM FOR REGISTRATION

REGISTRATION FORM

Intelligent Fields: Making Them Happen

19–22 June 2012 | The Leela Palace Bangalore | Bengaluru, India

Important: Attendance is limited and is not guaranteed. Early registration is recommended. Please print or type in black ink. Registration Fee MUST be paid in advance for attending the Applied Technology Workshop.

First Name/Forename _____ Middle Name _____

Last/Family Name _____ SPE Member? Yes No

Member No. _____ Job Title _____

Company/Organisation _____

Street or P.O. Box Number _____ City _____

State/Province _____ Zip/Postal Code _____ Country _____

Telephone _____ Facsimile _____

Email (required) _____

Applied Technology Workshop Fees*: includes: Technical sessions, materials, coffee breaks, luncheons, welcome cocktail reception and dinner. National (Indian Nationals based in India) (Registration by fax or email only)

Before 19 May 2012 INR 28,000 for SPE Member INR 30,000 for Nonmembers

After 19 May 2012 INR 30,000 for SPE Member INR 32,000 for Nonmembers

International (Indian Nationals based outside India and Non-Indian Nationals based in or outside India)

Before 19 May 2012 USD 1,700 for SPE Member USD 1,800 for Nonmembers

After 19 May 2012 USD 1,850 for SPE Member USD 2,050 for Nonmembers

*All fees paid to SPE are net of taxes. The registration in this form do not include any or local withholding taxes. All such taxes will be added to the above-mentioned registration fees in the invoice.

Do you wish to present a poster? (subject to selection) Yes No

Do you wish to be considered a Discussion Leader? (subject to selection) Yes No

If yes, please indicate which subject you would like to present on: _____

Credit Card (Check One): American Express MasterCard Visa

NO REFUNDS will be granted on cancellations on or after 12 June 2012.

Card Number (will be billed through Society of Petroleum Engineers)

Expiration Date (mm/yy)

Security Code

Name of Credit Card Holder (printed) _____

Signature (required) _____ Date _____

Please inform us of mobility or special dietary needs _____

Payment by Bank Transfer: IMPORTANT—For reference: Please quote “12ABLR” and name of delegate

Make Payment to: HSBC Bank Middle East Ltd, Jebel Ali Branch, P.O. Box 66, Dubai, UAE

Account Name: SPE Middle East DMCC Account Number: 036-217131-100 Swift Code: BBMEAEAD; IBAN: AE18020000036217131100

PAN Card Number: AAPCS2761N

Registration Policy:

- This is a non-residential workshop. Therefore, accommodation is not included in the registration fees.
- Full fixed fee is charged regardless of the length of time that the registrant attends the workshop. Attendees are expected to attend all workshop sessions and are not permitted to attend on partial basis.
- Fixed fee cannot be prorated or reduced for anyone (workshop chairperson, co-chairpersons, committee members, speakers, discussion leaders, students, or registrants)

Cancellation and Refund Policy:

- A processing fee of USD 100 will be charged for cancellations received before the registration deadline 19 May 2012.
- For cancellations received after the registration deadline, 19 May 2012, 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 12 June 2012.
- No refund will be issued if a registrant fails to attend the workshop.

Visa:

SPE Middle East, North Africa, and India 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.

For questions or additional information contact: Khushbu Rajwani, senior event assistant, at krajwani@spe.org.

Not an SPE Member?

Join SPE when you register and save money by paying the lower member registration fee.

A portion of your dues is allocated to a JPT subscription and is not deductible or refundable.