SPE ASIA PACIFIC DIGITAL WEEK PROGRAMME

Monday, 11 September 2017	
SPE Workshop: Internet of Oilfield Things – Creating New Value in Information from Upstream to Downsteam	
0800 – 0850	Arrival of Delegates and Registration
0850 – 0900	Safety Announcement by Hotel
0900 – 0930	**Session 1: Welcome and Introduction** *Co-Chairpersons: Nasarudin Mustapha, PETRONAS Carigali Sdn Bhd; Nurfitrah Mat Noh, Schlumberger*
0930 – 1000	Group Photo for Internet of Oilfield Things Workshop Participants & Coffee and Tea Break
1000 – 1200	**Session 2: Ice Breaking and Open Forum on Drivers and Values Proposition of IoT for the Oilfield** *Session Managers: Robert Do, Zedi; Michelle Lim, PETRONAS*
1200 – 1300	Networking Luncheon
1300 – 1500	**Session 3: From Dumb Iron to Smart Iron** *Session Managers: James Wilson, Wireless Measurement; Syed Redzal, Baker Hughes, a GE Company (BHGE)* With a significant number of oil and gas companies ready to embrace IoT solutions, the market is ripe for disruption, especially with sensor pricing expected to drop. Significant opportunities exist to provide simplified access to information and potential opportunities for unmanned operation that leveraging real-time remote monitoring. By using sensors that can see, feel, smell, and hear downhole to detect defects or breaches , supplemented by the use of autonomous scouts to provide 24/7 remote monitoring, organisations can effectively put in place an immediate first line of defense from equipment failure, downhole risk, hazardous conditions, and environmental impacts. Integrated asset information from various equipment that aggregate sensor data, operations data, and geospatial data in an analytic engine, to provide real time alerts using event based logic to enable immediate action based on data generated from sensors.
1500 – 1515	Coffee and Tea Break
1515 – 1715	**Session 4: Integrating Upstream and Downstream where Every Decision are Interconnected** *Session Managers: Robert Do, Zedi; Michael Potts, Weatherford* With the IOT transformation in the oil & gas industry, from the upstream, midstream to downstream, the advancement of smart sensor technologies, interconnectivity and smart data analytic; the challenge rests firstly in the integration of a reliable 'sea of information' and new technologies in a closed-loop information sharing to end-to-end lifecycle management to transform their business, which will positively impact the bottom line. This session will cover challenges, current and new technologies in the area of remote monitoring, current and next generation of wireless telemetry, data gathering through cloud platform and available data analytic visualisation.
1715 - 1830	**Session 5: Cloud Platforms, Communication, and Security** *Session Managers: Mohd Azra Ahmad, Baker Hughes, a GE Company (BHGE); Jonathan Lee Seng Wei, SAS Malaysia*
1830 onwards	Welcome Reception

Tuesday, 12 September 2017	
SPE Workshop: Internet of Oilfield Things – Creating New Value in Information from Upstream to Downsteam *SPE Workshop: Data Science and Analytics for E&P Projects*	
0830 – 0930	**EXECUTIVE KEYNOTE SESSION** *Co-Chairpersons: Nasarudin Mustapha, PETRONAS Carigali Sdn Bhd; Ruziean Abdul Rashid, PETRONAS, Nurfitrah Mat Noh, Schlumberger; Georg Zangl, Schlumberger*
0930 – 0945	Group Coffee and Tea Break
0945 – 1100	**EXECUTIVE PANEL SESSION 1:** **The State of IoT and Big Data in Oil and Gas - Drivers and Business Values for the Oilfield** *Co-Chairpersons: Nasarudin Mustapha, PETRONAS Carigali Sdn Bhd; Ruziean Abdul Rashid, PETRONAS, Nurfitrah Mat Noh, Schlumberger; Georg Zangl, Schlumberger*
1100 – 1215	**EXECUTIVE PANEL SESSION 2:** **Keeping It Safe – Counter Measures Against Data and Cyber Attacks** *Co-Chairpersons: Nasarudin Mustapha, PETRONAS Carigali Sdn Bhd; Ruziean Abdul Rashid, PETRONAS, Nurfitrah Mat Noh, Schlumberger; Georg Zangl, Schlumberger*
1215 – 1315	Group Networking Luncheon
1315 – 1515	**Session 6: Technology readiness: How Do I Make Sure My Current Technology Investments will Fit to Future IoT Technology?** *Session Managers: Mark Lochmann, Independent Consultant; Gabriel Tse, a GE Company (BHGE)* Everyone has to deal with legacy systems and it's only going to get worse. This session will investigate issues around compatibility, interoperability, the choice between retaining the status quo and making new technology investments, and future technology drivers for change. Discussion questions will include: • Strategies for basic compatibility with future systems • Interoperability - implementing new technologies, systems, and processes with legacy systems • Coping with legacy systems - overcoming the inertia of the status quo • Technology advancements and planned obsolescence • How do changing business needs and evolving best practices affect upgrade decisions?
1315 – 1330	**Session 1: Welcome & Introduction** *Co-Chairpersons: Ruziean Abdul Rashid, PETRONAS; Georg Zangl, Schlumberger*

1330 – 1515	**Session 2: Field of the Future in Data Analysis** *Session Managers: Vipin Prakash Gupta and Daljit Singh, PETRONAS* Oil Industry is not alien to Data. Data has always been integral part of almost all aspects of Oil business, be it finding new oil, enhancing production, reduce risks or optimising costs. What has changed today is the availability of new Digital Technology under the umbrella of Big Data & Analytics. These technologies present a significant opportunity to bring about a radical change in the way things have been done traditionally. Fields of Future is a session that provides a platform for the leaders/ speakers to challenge themselves in coming up with their own vision of how Digital Technology will transform the Oil & Gas Industry. The sessions seeks to explore beyond the obvious to define the future of what is possible.
1515 – 1530	Group Coffee and Tea Break & Group Photo for Data Science and Analytics Workshop Participants
1530 - 1730	**Session 7: Change Management - How to Connect IoT and People?** *Session Managers: Tee Chew Poh, Schlumberger; Syed Redzal, Baker Hughes, a GE Company (BHGE)*
1530 - 1730	**Session 3: Improved E&P Operations – The Business Perspective (Value Creation)** *Session Managers: Dr Carlos Damski, Genesis Petroleum Technologies; Ali Sabzabadi, PETRONAS* The focus of the session lies on value creation for upstream operations. Sensor technology and IoT are generating a vast amount of data, but currently only a fraction is used for decision making. For example, only 1 percent of data from an oil rig with 30,000 sensors is examined. In completing a circuit from action back to modified action, also called the value loop, insights can be gained and operations can be optimized. This session addresses the success criteria of data analytics in the value loop and the value of the insights from increased utilisation of existing data.
1730 – 1830	**Session 8: Workshop Summary and Closing Remarks** *Co-Chairpersons: Nasarudin Mustapha, PETRONAS Carigali Sdn Bhd; Nurfitrah Mat Noh, Schlumberger*
1730 – 1830	**Session 4: Optimisation of Unplanned Deferment / Enhanced Forecasting** *Session Managers: Henrikus Amperanto, Murphy Sarawak Oil Company Ltd.; Vipin Prakash Gupta, PETRONAS* Unplanned Deferment refers to events that are known and expected but not planned. The cost paid by the industry in terms of lost barrels is significant and demands attention. One of the consequences of this phenomenon is the inherent uncertainly of any forecast that is projected. The new advances in technology involving internet of things, reducing costs of sensing equipment, speed of processing and concepts of cloud computing etc.. is creating a lot of hope in this area by collecting data that can access every piece of equipment and predict its performance thereby potentially reducing the downtime. Industry's acceptance of such practices will go a long way in improving bottom-lines and help enhance the accuracy & quality of forecasts.
1830	Group Networking Dinner

Wednesday, 13 September 2017 *SPE Workshop: Data Science and Analytics for E&P Projects*	
0830 – 1030	**Session 5 : Data Driven Subsurface Modelling - Novel/Alternative Approaches** *Session Managers: Lee Moritz, EnQuest; Deliza Aleesha Uli, PETRONAS Carigali Sdn Bhd; Nicholas Antoniou, Independent Consultant* Traditional technologies for modelling the subsurface have been used for many years, including standard Geophysical and Petrophysical interpretation, static modelling, geostatistics, dynamic modelling, streamline modelling, material balance and more With the advent of ever increasing computing power and methods such as neural networks, deep learning, big data, and other forms of artificial intelligence, the traditional processes & workflows are being transformed to deliver better value, higher resolution and lower costs. Top Down Modelling is one of the many solutions that are being currently offered. This session will focus on these new non-traditional technologies, where practical applications have been applied. With the advent of ever increasing computing power and newer methods such as neural networks, deep learning, big data, and other forms of artificial intelligence, it is imperative that the subsurface modelling take advantage of some of these new data-driven technologies to create new methods/paradigms to evaluate the subsurface and get the most out of oilfield investments. This session will focus on these new non-traditional technologies, where practical applications have been successful.
1030 – 1045	Coffee and Tea Break
1045 – 1245	**Session 6: Integrated Operations - Real Time Modeling & Data Analytic Applications in Facilities Management** *Session Managers: Jonathan Lee Seng Wei, SAS Malaysia; Lee Hin Wong, Schlumberger* The advent of advanced information and communication technology and real-time data has enabled Integrated Operations implementation that introduce new work processes in order to reach faster and better decision making. This session will focus on Integrated Operations in the real-time modeling and data analytic application in facilities management. Session topics and case studies include IO implementation and how real time modelling and digital solution such as data analytic application leads to productivity revolution and promote a more effective and efficient facilities management.
1245 – 1345	SPE Luncheon
1345 – 1545	**Session 7: Leveraging Big Data** *Session Managers: Daljit Singh, PETRONAS; Shahab Mohaghegh, West Virginia University; Simran Kaur, ASEAN Data Analytics eXchange (ADAX)* Most business processes of large corporations have been established and fostered long time ago, maybe some even before the digital revolution. Therefore, they are nowadays lagging behind the tremendous capabilities of new technologies. Changing these processes and adapting new technologies is often cumbersome and slow. Success is not always guaranteed. The focus of the session is establishing quantitative measures for how the timeliness of decisions can be aligned with the pace of technology and reducing risk and uncertainties in E&P projects*.
1545 – 1600	Coffee and Tea Break

1600 – 1800	**Session 8: Accelarated Decision Making – How to make proactive decisions in a timely manner?** *Session Managers: Georg Zangl, Schlumberger; Jess Kozman, CLTECH Consulting Pte Ltd.; Nicholas Antoniou, Consultant* The focus of the session is establishing quantitative measures for how the timeliness of decisions can be aligned with the pace of technology and reducing risk and uncertainties in E&P projects.
1800 – 1830	**Session 9: Workshop Summary and Closing Remarks** *Co-Chairpersons: Ruziean Abdul Rashid, PETRONAS; Georg Zangl, Schlumberger*
1830	Day 3 Concludes

Thursday, 14 September 2017 *SPE Training Course A: Data Analytics for Drilling Optimisation (In conjunction with SPE Workshop: Data Science and Analytics for E&P Projects)*	
0900 – 1700	**SPE Training Course A: Data Analytics for Drilling Optimisation** *Carlos Damski, Genesis Petroleum Technologies Pty Ltd (Australia)* In today's world, traditional methods of drilling oil wells don't work as much anymore. Yesterday's practices are being superseded by a universal trend towards the extensive use of historical and real-time data to understand, learn and predict all well intervention operations. This course explores the impact of data analytics on well operations. Drawn from the presenter's extensive experience in data analysis, it examines, in easily understandable terms, today's data management processes targeting process improvement.