Kuwait 4th Flow Measurement Technology Conference

3-5 December 2019
Hilton Kuwait Resort

Under the patronage of
His Excellency
Dr. Khalid Ali Al Fadel
Minister of Oil and Minister of
Electricity and Water

Mr. Emad Sultan
CEO, Kuwait Oil Company (KOC)
Conference Chairman

Mr. Mohammad Al-Zoubi
Deputy CEO of West Kuwait, Kuwait Oil
Company (KOC)
Head of Steering Committee

Mr. Abdulaziz Ahmed Al-Duaij
Deputy C.E.O. Support Services,
Kuwait National Petroleum Company (KNPC)
Member of Steering Committee

Mr. Rashed Al-Marri
Team Leader Export Oil Movement
and Measurement
Chairman of Technical Committee

Mr. Bader Al-Hudiah
Team Leader Career
Development & Planning
Member of Technical Committee

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<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
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<tr>
<td>08:00</td>
<td>Registration</td>
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<tr>
<td>08:30</td>
<td>Opening Session</td>
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<td>Conference Chairman</td>
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<td>08:30</td>
<td>Keynote Presentation</td>
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<td>08:30</td>
<td>Sponsors Recognition Awards</td>
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<td>09:30</td>
<td>Networking Break</td>
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<td>10:00</td>
<td>Challenges to calibrate &quot;on-site&quot; a 212 Bbls Prover by Water-Draw Method</td>
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<td>10:00</td>
<td>Husain Alabdeen</td>
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<td>10:00</td>
<td>KOC</td>
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<td>10:20</td>
<td>Case Study: Flow Measurement Accuracy - Loss /Gain</td>
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<td>10:20</td>
<td>Solaiman Alanezi</td>
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<td>10:20</td>
<td>KNPC</td>
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<td>10:40</td>
<td>Combination of Uncertainties for Multi Streams Metering Systems</td>
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<td>David J. Woods</td>
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<td>Intertek</td>
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<td>11:00</td>
<td>Innovations in Non-Gamma Multi Phase Flow measurement at wellheads</td>
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<td>Ninan Mathews</td>
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<td>11:00</td>
<td>Emerson Automation Solutions</td>
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<td>11:20</td>
<td>Measures Towards Accurate Flow measurement Selection</td>
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<td>11:20</td>
<td>Yasser A. Mahmoud, Abdullah Al-Mutairi, Mahdi Al-Qazweeni</td>
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<td>11:40</td>
<td>Laboratory &amp; Field Test Results for an Adjustable DP Cone meter</td>
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<td>Gavin Munro, Victor Gawski</td>
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<td>GM Flow Measurement Services Ltd.</td>
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<td>12:00</td>
<td>Networking Break</td>
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<td>Reconciling Flow Measurement Errors of a Gas Compression System</td>
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<td>12:00</td>
<td>Mohit Narain, GNV Sridhar and Jatin Ponda</td>
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<td>Evaluation of New Mixing Method for Pipeline Sampling at NEL Flow Facility</td>
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<td>13:00</td>
<td>E. Verloop, P. Verloop, R Harvey, E. Sveinsvoll, S Ovrebo</td>
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<td>KPS, NEL, Aker BP</td>
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<td>13:30</td>
<td>Liquid meter proving using Master Meter proving Helical Blade Turbine Meters</td>
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<td>Solomon Rajkumar</td>
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<td>13:30</td>
<td>Faure Herman</td>
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<td>13:50</td>
<td>Measurement Enhancement Through Technology</td>
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<td>Ben Leach</td>
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<td>Swinton Technology Ltd</td>
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<td>14:10</td>
<td>Impact of Various variables that influence in the Flow Measurement through Orifice Metering System</td>
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<td>Nishant Janbandhu</td>
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<td>14:30</td>
<td>Lunch &amp; End of Day 1</td>
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**AGENDA**

**DAY 1, 3 DECEMBER 2019**
08:30 - 08:50  Flowmeter for Chemical Injection  
L.R. Krishnan  
KOC

08:50 - 09:10  Moving to a True Predictive Maintenance Model for Ultrasonic Measurement Skids  
Max Gutberlet  
Honeywell

09:10 - 09:50  Flare Flow measurement - Precision and IR4.0 Tools  
Fawaz AlSahan  
Saudi Aramco

09:50 - 09:55  Shrinkage Quantity Measurement during vessel loading  
Khalid Suwaidan  
KOC

09:55 - 10:10  Networking Break

10:10 - 10:30  Reduce your wiring, not your expectations with 2-wire Coriolis flow and density measurement Technology  
Abhijit Singh  
Emerson Automation Solutions

10:30 - 10:50  Challenges in Gas Metering  
Mubarak Jaber Ali Al-Haddad & Adnan Dashti  
KOC

10:50 - 11:10  Challenges in Hydrocarbon Metering Management - Shearing some practical examples  
Ronal ten Cate  
DNV-GL

11:10 - 11:30  Networking Break

11:30 - 11:50  KNPC Refinery Effort Towards Reducing Hydrocarbon Loss & Flare Gas management  
Ahmed J. Al-Tarkeet  
KNPC

11:50 - 12:10  Advanace Dual-Energy Multiphase Flow meter Performance in Challenging Environment - Case study from Kuwait  
Luis Thiagaraj / Hazim Ayyad  
Schlumberger

12:10 - 12:30  Data Validation and Reconciliation (DVR) Applications in Upstream Production Systems  
Amin Amin / Timothy Jadot  
Belsim Engineering

12:30 - 12:50  Networking Break

12:50 - 13:10  Exploring a New Generation of Meter Proving Technology  
Steve Stewart  
FMD Distribution & Service

13:10 - 13:30  A Saturated Steam Injection Meter  
Erik Sanford, Keichi Igarashi, Richard Steven  
Vortek Inst., AZBIL, DP Diagnostics

13:30 - 13:50  Back Pressure on Liquid Flow Measurement  
Henry Gomes  
Intertek

13:50 - 14:10  PVT - EOS Modelling in Multiphase Flow Metering  
Haluk Toral, Petroleum Software Limited

14:10 - 14:30  Advantages, Disadvantages & Challenges of using Coriolis Meters  
Faraj Al-Qattan, KOC

14:30 - 15:00  Lunch & End of Day 2
08:30 - 08:50 Proficiency Test Program
Mohammad Al-Katrash
KOC

08:50 - 09:10 Finding the Missing Uncertainty: Water Injection Testing of Automated Crude Oil Sampling
Duane Rowan
Cameron -SLB

09:10 - 09:50 Implementation AGA 3 Function Block
Ali Al-Quraini
KOC

09:30 - 09:50 Plantweb Smart Metering System allows Companies to Achieve & Sustain Top Quartile Performance
Karim Sahim Abdul
Emerson Automation Solutions

09:50 - 10:10 Networking Break

10:10 - 10:30 An Overview of an Orifice Meter Verification System
Kim Lewis and Ray Kutty
DP Diagnostics

10:30 - 10:50 Flow Meters with 'Heavy Oil'/Low Reynolds Number Flow
Richard Steven, NH Rayan
DP Diagnostic and Measurement

10:50 - 11:10 Flare Flowmeter Challenges
Kanagasabai Sabapathi
KNPC

11:10 - 11:30 Networking Break

11:30 - 11:50 Measurements in Leak Detection System for KOC Consumers Fuel Pipelines and Challenges
Ghazi Al-Osaimi, Maju Allayse, Ahmad Abdulkareem
KOC

11:50 - 12:10 Ultrasonics, Theory, Use and their Diagnostics Capabilities
Lawson H Ramsay
Intertek

12:10 - 12:30 Project Experience in Large Scale Implementation of MPFMs in an Entire Oil Field
Haluk Toral & Arman Ilyassov
Petroleum Software Limited

12:30 - 12:50 Networking Break

Justin Hollingsworth
Emerson Automation Solutions

13:10 - 13:30 Wet Gas Testing of Venturi, Coriolis & Ultrasonic Meter
Aivin Young
KROHNE

13:30 - 13:50 Closing Remarks & End of Conference