OIL AND GAS AUTOMATION & DIGITALIZATION CONFERENCE 2023
Opportunities to Boost Profitability and Strategies to Maximize Efficiencies in Oil and Gas Production
AGENDA 2023

Day 1
Wednesday, 3 May 2023
US Eastern Time Zone (ET)

8:15 — **Welcome Speech**

8:30 — **How robust Cybersecurity solution can help in reliable Digitization of Oil and gas industries**

- State of Cybersecurity in Oil and Gas Industries (Unclear/Lack of Cyber Security Policies and Procedures, Outdated Industrial Control Systems, Inadequate separation of Industrial and IT networks, Too few Network security measures- On- and Offshore, etc.)
- The reason for the current state of cybersecurity (Lack of cybersecurity awareness in staff due to their expertise in entirely different areas, Legacy systems that could handle the operational requirements without being upgraded, leveraging IT network security controls as OT network security controls are minimal due to various reasons, etc.)
- Ways to address the cybersecurity challenges (Training staff, Deploying cost-effective OT security solutions without necessarily revamping the OT network, employing cybersecurity experts, understanding that good cybersecurity practices would entail changing operational workflows, etc.)
- State of the art in cybersecurity technologies that address the above challenges.

Shantanu Bhattacharya | Siometrix

SIOMETRIX

9:00 — **Analytics Journey in a Downstream Marketing O&G Operating Unit PETRONAS Dagangan Berhad**

- Data Analytics Transformation Journey : Planned Roadmap and activities for 2020-2022
- Data Democratization and Single Source of Truth : What we have accomplished and how
- Citizen Analytics, Users Adoption and Change Management : What we have accomplished and how
- Analytics Self Service: What we have accomplished and how
- AI enablement : What we have accomplished and how
- What is next: Journey kick off for Commercial Analytics

M Ariful Islam | PETRONAS

PETRONAS

9:30 — **Process Automation in Oil and Gas: Seizing The Growth Potential in 2023**

- How can Digitalization help to Alleviate the Oil and Gas Skills Labor Shortage
- Future-proofing your Business Against Uncertain Geo-political Environments with Operational Excellence
- How the Oil and Gas Industry can Thrive with Real-time Data and Insights in 2023

Paul Stone | FlowForma
Title Sponsor

FlowForma
Empowering Process Automation

10:00 — **Securing Remote Operations for Critical Infrastructures**

- Remote access is becoming a necessity for OT and there are countless reasons from professionals running offshore oil rigs other critical facilities needing 24/7 access from anywhere. But providing that access has traditionally been too complex and fraught with security issues as exposing critical infrastructure to the "outside" greatly expands the attack surface for hackers.
- Hear how to create and maintain secure and frictionless access to industrial control systems, enabling secure remote operations with a zero-trust architecture including protocol isolation, integrated MFA, role-based and time-based access controls, user session analytics, and more.

Bill Moore | XONA
Gold Sponsor

XONA

10:30 — **Networking Break**

11:30 — **AUTOMATION IN EMISSIONS DETECTION: AVOIDING THE PITFALLS**

- Automated systems based on continuous data collection through sensors
- Automated systems based on periodic earth imaging surveys (drones and satellites)
- Predictive models for pipeline maintenance and leaks in areas of sparse data

Susan Nash | AAPG

AAPG

12:00 — **Scalable, IoT-Enabled Energy Monitoring to Optimize the Performance and Uptime of Upstream and Downstream Assets**

- Due to high capital costs, many non-critical, but essential assets are not proactively monitored in refinery operations, requiring manual tracking and reporting and often resulting in lost revenue and process downtime when equipment fails
- Vutility is helping a major energy producer add real-time visibility throughout their refinery operations with our HotDrop technology
- Previously, the organization had invested well over six figures and several months of planning and installation (1000'+ of poles and wire) to add incremental monitoring to individual essential (but non-critical) assets
- Leveraging their existing private LoRaWAN network, the organization is now able to proactively monitor and proactively manage and optimize the performance of equipment throughout the facility using HotDrops for under $1000 per asset, with same day installation and pay-back
- The same HotDrop technology addresses remote asset monitoring for upstream applications as well, enabling remote field teams to proactively prioritize which sites to service and optimize asset production and uptime

Joel Berntsen | Vuitility

vutility

12:30 — **Data-Driven Optimization of analyzer & instrument reliability**

- Process Analyzers and instruments plays a significant role in process optimization in the O&G sector.
- Achieving a higher reliability in relation to availability and accuracy of these sensors has a direct impact on the process, for example by higher product quality.
- The presentation will share the latest innovation in the field of data science & digitalization on the level of measurement by showing concrete example for various applications.

Lukas Bimmerle | Siemens
Gold Sponsor

SIEMENS

13:00 — **Integrating Cybersecurity into Facility Operations**

- Cybersecurity is increasingly required through regulation for critical infrastructure
- There are a variety of Cyberthreat Intelligence (CTI) services available to provide warning of potential threat vectors.
- CTI information is predominantly for business (IT) applications, the challenge is to identify the relevant notifications and integrate them into the SCADA system to be proactive and protect the associated critical infrastructure.
- Threats continue to evolve, and require support for continuous patching without restarting controllers versus waiting for the next outage
- This presentation will share how the above challenges are being met

Ian Verhappen | Willowglen Systems Inc.

WILLOWGLEN SYSTEMS

13:30 — **Networking Break**

14:00 — **OPERATING BY EXCEPTION AND WORKFORCE SHRINKAGE**

- Operating by exception and why it's necessary for this age of automation, especially with a shrinking workforce
- Exploring how to deploy exception-based operating procedures in well sites successfully
- E&P approaches to automation and exception-based operating procedures

Denis Drolet | Vermilion Energy

VERMILION ENERGY

14:30 — **Digital Tools for the Oil and Gas Sector**

- Define the need for digital tools.
- The right digital tool for the right job.
- Demonstration of value.

Allan Fogwill | Petroleum Technology Alliance Canada

PTAC

15:00 — **Digitalization and AI in the Energy Sector: Opportunities and Challenges for Methane Emissions Detection and Prediction**

- This upcoming session will explore how digital technologies, especially AI, are disrupting the energy industry by detecting, quantifying, reporting, and predicting methane emissions. Detecting these emissions is critical because methane is a potent greenhouse gas that contributes significantly to climate change. Effectively detecting these emissions can help the energy sector move towards sustainability and responsibility.
- With these new technologies, the energy industry can efficiently and accurately monitor and analyze methane emissions, allowing them to pinpoint the sources of these emissions and devise targeted strategies to reduce them. By doing so, they can address a huge problem in oil and gas production where methane leaks can cause environmental and economic losses.
- This discussion will also address the challenges and opportunities associated with digitalization in the energy sector, such as issues related to data quality and availability, ethical considerations, regulatory frameworks, skills development, and stakeholder engagement.

Peter Kowalchuk | Microsoft

Microsoft

15:30 — **End of Day 1**

8:30

Cybersecurity as one of selection criteria when buying a DCS system – what are must haves and nice to haves?

- What king of challenges regarding Cybersecurity exist between vendors and end-users of DCS systems?
- How the cybersecurity related requirements included in RFQ may impact the price of the system's implementation and later it's maintenance
- Cases studies describing how specific requirements may influence vendor's responses to an RFQ.

Slawomir Kukla | Accenture

9:00

Digital Twin Empowering Energy Solutions of the Future

- Digitalization vs Success Digital Transformation – Why some digital transformations fail?
- Need for a Digital Twin and How to Think about it Holistically.
- Digital Transformation Avenues
- Benefits of Digital transformations
- Future of Digital Twin

Anupam Acharya | Technip Energies
Gold Sponsor

9:30

Ultrasound cameras: a unique leak pinpointing tool to tackle emission reduction challenges

- Ultrasound cameras are an alternative detection technology to enable cost-effective methane emissions reduction
- Following evolution of Oil & Gas sector, ultrasound cameras are a unique method to pinpoint hydrogen leaks from a safe distance
- Novel technologies empower gas leak detection operations ; enabling traceability of inspections and leaks tracking through digital reporting

Ueli Rothen | Distran Ltd
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10:00

Digital Transformation – i-DRIVE at Indian Oil Corporation Limited

- The digital transformation programme, deemed as IndianOil's Digital Readiness and IT Vision Enablement (i-DRIVE), has pioneered digital transformation at enterprise-level achieving significant traction across 150+ initiatives spanning 10 business themes covering customers, operations, supply chain projects, employees, and vendors
- The project is driving value by leveraging advanced analytics powered by AI/ML for core operations as well as customer facing businesses, democratizing emerging technology platforms devised across technologies such as robotic process automation, augmented reality and virtual reality and deploying custom-off-the-shelf tools to revamp technology stack across departments.

Faraz Osmany | Indian Oil Corp Limited

10:30   **Networking Break**

11:30

Smart Sensors; Enabler of Automation and Digitalization in Oil and Gas

- The presentation will share with the audience an enabler of digital transformation; namely "smart sensors".
- The slides will highlight the latest and most disruptive sensing technologies and their use cases in oil and gas industry along with their principle of operation, field evaluation and results.
- The benefits of smart sensors to the automation and digitalization in oil and gas will be also addressed.

Fawaz AlSahan | Saudi Aramco

12:00

CBMnet - A Journey into the Digitalization of Predictive Maintenance

- Many years ago, we had a vision; to deliver condition monitoring analysis services to remote oil & gas facilities around the world via the Internet.
- 20 years on, digitalisation is no longer an option but a necessity, requiring the development of pioneering tools and processes.
- We recount our journey with insights into leveraging advances in technology, understanding the user experience, obstacles of Internet connectivity and facilitating digital integration.

Matthew Moore | Petrofac

12:30

Practical lessons learned from 15+ years installing SCADA in Midstream Oil & Gas

- In oil & gas, almost all SCADA installations occur on new pads, interconnects and pipelines
- Customers don't usually know what they want until after they get it
- Employ project management in any SCADA project
- State your overall business objective up front
- Survey the site on the ground before setting design parameters

Chuck Drobny | GlobaLogix

13:00

How to de-risk revamping projects & maintenance contracts?

- **Samp helps oil & gas companies connect their outdated process engineering drawings with their up-to-date 3D reality capture to:**
  - Identify discrepancies between P&ID and the field
  - Facilitate mutual understanding between office engineers & field workers
- **The main value is to de-risk, accelerate and reduce the costs of**
  - Revamping/expansion projects from preparation to execution and handover
  - Long-term service contracts from bidding to execution and closing

Thomas Grand | Samp

13:30   **End of Day 2**