

2023 MARY KAY O'CONNOR PROCESS SAFETY & RISK CONFERENCE, OCTOBER 11-13, 2023

Day 1 - 11-October-2023	7.30 – 8.15	Breakfast					
	8.15 – 9.10	Plenary Speaker - Michelle Roberson					
	9.10 – 9.25	Booth Exhibitors Presentation (Rexa, Softekeng, SIS-Tech, Prolytx, Kenexis)					
	Room	Mockingbird	North	South	Oakwood Ballroom	Amphitheater	
	9.30 – 11.30	Managing Process Safety	Hydrogen Safety	Consequence Analysis, Flammability, Combustion, Explosion	Ocean Safety Day	Process Automation	
	9.30 – 10:00	Keynote Address- Dr. Katherine Lemos	Keynote Address - Dr. Pistikopolous	79 - Physics-informed deep learning applied to steady-state methane dispersion - Savio Vianna	Dr. Faisal Khan - OESI Overview (9:30 AM - 9:40 AM)	150 – Why and How to Start A Career in Process Automation - James Beall	
	10:00 – 10:30		100 - Detection & Mitigation of Hydrogen Releases - Jesse Brumbaugh	73 - Comparative analysis of the methodologies for the evaluation of the gas generation rate for gas generating chemical systems under runaway conditions –Amani Grati	Dr. Greg Kusinski - Keynote address (9:40 AM - 10:20 AM)	41 – Building an Engineering Data Ecosystem - Mike Antosh	
	10:30 – 11:00	17 - Process Safety Culture in Research Centers; Road Map Toward Enhancement - HESHAM ALSUBAIT	28 - Process safety of hydrogen filling station in the Czech Republic - Vojtech Jankuj	18 - Understanding the Reactivity and Dynamics of Hybrid-Mixture Explosions at Large Scales - Lorenz Boeck	Michaela Noble - Keynote Address Ensuring Safety of Offshore Wind While Spurring Technology (10:30 AM - 11:10 AM)	91 – Plant Automation Modernization Projects - M.C.Chow	
	11:00 – 11.30	26 - Application of Inherently Safe Principles to Projects - Tim Hoff	72 - 10,000 lbs of Hydrogen - A Process Safety Perspective on Hydrogen Based Fuels and H2Hubs - Michael Snakard	61 - Design of a State-of-the-Art Battery Failure Experiment - James Thomas	133- Systemic Risk in US Offshore O&G: HF and HOP Challenges - Tom Sheppard (11:10 AM - 11:30 AM)	20 – Optimize Costs and Mitigate Risks – David Weimer	
	11.30-1.00	Lunch - Exhibitors Presentation (DNV, BakerHughes, aESolutions, Yokogawa, ManganInc)					Ethics Training – Shane Pirtle
	1.00 – 3.00	Managing Process Safety	Learning from Incidents, Investigations, Case Histories, Incident Data	Operational Excellence, Best Practices, Worker Involvement	Ocean Safety Day	Common Cause and Systematic	
	1:00 - 1:30	Keynote Address - Rebecca Peterson	21 - Integration of Psychological Safety into the Chemical Process Industry - Osama Alghamdi	55 - Learnings from the collaboration between industry and academia to build Process Safety Competency industry - Luc Vechot	Lisa Grant, BSEE - Keynote Address Why the OESI? (1:00 PM - 1:40 PM)	22 – Preventing Systematic Faults and Reducing TI – Workshop	
	1:30 - 2:00	52 - Threshold Quantity for Process Safety Metrics for Special / Coded Chemicals - Hema Divya Katna	119 - Applying Machine Learning and Keyword Analysis for Efficient Incident Reporting and Risk Management - Yuexin Liu	126 - IOGP Process Safety Fundamentals - Samantha Scruggs	Steven Wong, DOE - Keynote Address Fragility of Complex Systems and Implications for Safety (1:40PM - 2:20 PM)		
	2:00 - 2:30	54- PSM Boundaries in the Semiconductor Industry-Mike Stone	188-Shift Work Fatigue Risk Evaluation: A Review and Case Study" by Mohaned Y. Faisal.	141 - Best Practices for Working Safely with Hydrogen: Engineering Safety Guidelines, Texas A&M University - David Breeding	C. Peres, Rich Sear, Charles Williams – Keynote Address 143- Systemic Risk in Offshore Oil and Gas in the U.S. Gulf of Mexico	93 – Applying Common Sense to Common Cause - Workshop	
	2:30 - 3:00	122 - Bridging Gaps in Process Safety for the Offshore Energy Transition, the Work of the Gulf Research Program - Hallie Graham/Pettigrew	176 - Major accident scenarios caused by pipeline failures due to earthquakes - Valerio Cozzani	38 - The Lees' process knowledge compilation project is important because of past and future of process safety. - Pasman (Tanjin)			
	3.00 – 3.30	Break - Exhibitors Presentation (iChemE, DOT, Krohne, Hunterbuildings, Minearcusa)					
	3.30 – 5.30	Asset Integrity Management	Accident Modelling and Investigation	Cyberphysical Systems	Ocean Safety Day	Operation Effectiveness	
	3.30 – 4:00	157 - Keep in the Pipe – Swiss Cheese – Why the Holes Lineup - Rajender Dahiya	80 - COMPUTATIONAL MODELLING OF BURNING VELOCITY OF GASES VENTED BY LI-ION BATTERIES - Savio Vianna	170 - Probabilistic Assessment of Security Attacks to Offshore Oil&Gas Installations - Matteo Iaiani	Special Session on OESI Roadmap Refresh and Feedback Discussion (3:00 PM to 5:30 PM)	87 – Operator Response to Alarm is an IPL - Tim Olsen	
	4:00 – 4.30	164 - Fire Behaviour of Acetonitrile by Cone Calorimeter - Gianmaria Pio	81 - Footprint of uncertainty (FOU) in the context of Bow-tie risk tool using fuzzy logic - Savio Vianna	120-Deep Reinforcement Learning for Cyber Security in Cyber-Physical Systems: A Comprehensive Survey - Yuexin Liu		145 – Peak Risk Analysis - Kedar Kottawar/ Jyothi Sharma	
	4:30 – 5:00	180- You have a “safeguard(s)” in place; Sounds promising, but have you tested it? - Harigopal Attal	62 - Study on the consequences of hazardous gas releases from buried pipelines - Ola Srour	161 - A risk-based model to detect the vulnerability of cyber breaches in the maritime industry-Mawuli Afenyo		10 – Can Control Room Operators be More Effective - Craig Wright	
	5:00 – 5:30	23 - Dynamic Risk Assessment of Liquid Carryover in Oil and Gas Separator Based on Condition-Monitoring Data - Abdullah Alsuliman	39 - Understanding corrosion at molecular level - MOHAMMAD ASIF	155 - CYBERSECURITY AND PROCESS SAFETY: A RESILIENCE BUILDING APPROACH TO RISK MANAGEMENT - Divine Livingstone Caesar		196- Surprises in writing effective operating procedures – Camille Peres	
	6.30 - 9.00	Networking BBQ Dinner (Brazos Center)					

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Day 2 - 12-October-2023	7.30 – 8.15	Breakfast				
	8.15 – 9.10	Plenary Speaker - Dr. Greg Kusinski				
	9.10 – 9.25	Exhibitors Presentation (PSRG, Graybar, 4Nick, Cognascents, Entrustsol)				
	Room	Mockingbird	North	South	Amphitheater	Oakwood Ballroom
	9.30 – 11.30	Data Analytics and Big Data	Managing Process Safety	Ocean Safety Day	Operational Excellence, Best Practices, Worker Involvement	Safety Instrumented Systems
	9.30 – 10:00	6 - Process Safety Health: How Should We Approach Metrics and Monitoring and What Are Emerging Societal Expectations? - David Drerup	16 - Challenges of Rolling out the Safety Management System (SMS / PSM) in newly commissioned Technical Research Center. (Mindset .Versus. Safety Culture ) - HESHAM ALSUBAIT	Keynote Address - Dr. Krish Sharman	12 - The Importance of Operations and Maintenance PSM Training - Chet Barton	37 – SIS Lifecycle- A. Shariat, B. Keuss, N. Muthiah
	10:00 – 10:30	48 - Application of natural language processing for spill reduction in an exploration and production company - Jamison Chang	76 - Application of the Weighted Set Covering Problem Combined to Computational Fluid Dynamics for Optimization of Gas Detectors in a Chemical Plant - Raphael Tsukada	186- Scalable machine learning: bridging the divide, encouraging new applications in oil, and gas, and near surface environmental and engineering geophysics.-Gary Young	106 - It’s Mastery, not Magic: Blueprint for Enhancing Safety Culture - Kristin Robbins	84 – SIS Safety Lifecycle - Cheyna Kaspar
	10:30 – 11:00	82 - Safety First: Innovative Advanced Analytical and Automation Solutions For Improving Safety - Douglas White	89 - The Benefits of Procedural PHAs – Rene Murata/Janet Benaquisto	175 - Safe Winterization and protection from Cold Waves of Chemical and Oil&Gas facilities- Valerio Cozzani	42-What is researched on process electrification and what does that mean for process safety? -Hans Pasman (Edison)	71 – SIS, Digitalization and Uncertainty - Gregorio Aguilar
	11:00 – 11.30	189-Realizing Digital Transformation in Safety Hesham S. Alotaibi	123 - Best Practices for Management of Change and Maturity Level Measurements - Madonna Breen	34-Comparative Analysis of International and US Safety Regulations for Offshore CO2 transportation for CCUS Purposes - Ahmed Elkady	146 - Understanding How to Integrate Humans into the 4 Pillars of a Process Safety Management System - S Camille Peres	183 – Datacentric Digitalization of Functional Safety – Jana Kallambettu
	11.30-1.00	unch/ Exhibitor's Presentation (Emerson, Siemens, Vector Controls, Process Industry Practices, Wolters kluwer)				
	1.00 – 3.00	Data Analytics and Big Data	Consequence Analysis, Flammability, Combustion, Explosion	Economics, Cost-Benefit, Value at Risk, Business Case	Consequence Analysis, Flammability, Combustion, Explosion	Failiure Rates
	1:00 - 1:30	SABIC Process Safety Journey – Fahad Al-Shammari	46 - 90% of what? Setting and achieving flame and gas detector performance targets - Bryant Hendrickson	60 - Reliability Centred Maintenance (RCM) Approach to Safety Risk-Based Cost Benefit Analysis and LOPA Data Input Development - Alex Waugh	Keynote Address - Samantha Scruggs A Process Safety toolkit - The CCPS Body of Knowledge	35 – Credible Failure Rates <u>Panel</u>
	1:30 - 2:00	113 - Review and Validation of Phast Dispersion Model for LNG Siting Applications in the US - Michael Harper/Frank Hart	149 - Performance of External Steel Shell Full Containment LNG Tanks Subject to Blast, Fire, and Impact Loads - Onder Akinci	19-Economic Tool for Quantifying Process Risks of End-of Life-Lithium-Ion Batteries- Sankhadeep Sarkar	103 - An Integrated Approach for Developing Recommendations in Hazard Evaluations and Incident Investigations - Henrique Paula	
	2:00 - 2:30	90 - Computational fluid dynamics (CFD) studies of CO2 dispersion - Chi-Yang Li	169 - Plume Sight, An ultra-flexible accident modelling tool - Ravi Kedarasetti	70-Profitability and Process Safety in Chemical Supply Chains with Demand Variability Considerations- Austin Johnes	94 - Runaway oxidation testing for solids: Case studies and pitfalls - Pranav Bagaria	184 – Failure Rate Data Landscape - Iwan van Beurden
	2:30 - 3:00	112 - Model improvements and validation for buried CO2 pipeline ruptures - Michael Harper/Frank Hart	114 - New Methods for Learning from Incidents Involving Human & Organizational Performance - Norman Ritchie	159 - Safer Hybrid Model-based Model Predictive Controller: Integration of Attention Mechanisms and Safety Constraints for Chemical Processes - Parth Shah	49 - Use of a two-parameter Weibull distribution for the description of the effect of the particle size distribution on dust explosion properties – Asma	181 – Economic Justification of SIS - Luis Garcia
	3.00 – 3.30	Break/ Exhibitor's Presentation (Western Midstream, Gexcon, TEES, MKO)				
	3.30 – 5.30	Functional Safety, Control Systems, ASM, SIS/SIL/LOPA, Alarms	Process Safety Automation	Managing Process Safety:	Resilience, Sustainability	Maintenance
	3.30 – 4:00	56 - Path-Sampling and Dynamic Risk Assessment for Rare Un-postulated Reliability/Safety Events - Vikram Sudarshan	53 - Model-based fault diagnosis and fault tolerant control for safety-critical chemical reactors - Pu Du	Keynote Address - Dr. Gregg Kiihne Transitioning Process Safety Knowledge	85 - Performance Analysis Technique: A Novel Technique for Comparing and Understanding the Differences between WAI and WAD - Atif Ashraf	24 – IEA IPL & SIF Design and Maintenance Benchmarking <u>Panel</u>
	4:00 – 4.30	187 - A new index encompassing water-energy-food nexus and the risks associated with the production of protein - Tabassum Abbasi	102 - EEG-Based Integrated Support System for Improved Training and Human Performance for Safe Process Plant Operation - Hossam A.Gabbar	193- Managing the risk of MOC - Jack Chosnek	140 - Photocatalytic Degradation of Produced Water by TiO2-rGO-CdS Nanotubes - Raghava Kommalapati	
	4:30 – 5:00	101 - Risk Assessment: How to avoid slipping, tripping, and falling over the numbers. - William Sharpe	147 - PSM Evergreening with Artificial Intelligence – Vishal Lagad	168 - Integrated Process Hazard Analysis, Bowties and Barrier Management - Paul Tours	25-A Detailed Strength, Weakness, and Opportunity Analysis of Existing Sustainability Metrics-Mitchell Huffman	166 – SIL 3 Proof Testing - Greg Hall
	5:00 – 5:30	13 - Enforcing Consistency of PHA/LOPA - Edward Marszal	65 - Enhancing Process Safety by implementing Risk Based Emergency Response and Crisis Management Plan with Consequence Modelling -SEC Success Story - Surendra Mahakalkar	15 - Setting up the right leading process safety indicators to support the lagging metrics and drive continuous improvement: A Gas company case study - Bahman Abdolhamidzadeh	29- Constructing a Process Risk Index Empowered by ASPEN Plus Simulation - Yutian Qian	173 – Defer Proof Testing - Michael Scott
	6.30 - 9.00	Banquet/Award Ceremony (Hilton Hotels)				

Day 3 - 13-October-2023	7.30 – 8.15						
	8.15 – 9.10	Trevor Kletz Award Lecture- Dr. S.A. Abbasi					
	9.10 – 9.25	Exhibitors Presentation					
	Room	Mockingbird A	Mockingbird B	Amphitheater	South	North	Oakwood Ballroom
	9.30 – 11.30	Hydrogen Safety		Risk Assessment, Uncertainty, ALARP	Security	The Future of Control	Process Sensing
	9.30 – 10:00	32 - Hazard Recognition of Proton Exchange Membrane (PEM) Hydrogen Production and Storage Installation - <b>Mohd Fadly Adnan</b>	Explosion Workshop – Dr. Ali Rangwala Dr. Alfonso Ibarreta	116 - Performance- and Risk-Based Approach Toward Combustible Dust Hazard Analysis & Mitigation Design - <b>Nicholas Reding</b>	92 – Unrealized Potential of SRS - <b>Greg Hardin</b>	131 – Control Strategies <b>Gregory McMillan</b>	104 – Calibration and Analysis of Gas Detection - <b>Edward Marszal</b>
	10:00 – 10:30	68 - A Comparative Study: Transporting Hydrogen or Ammonia - <b>Jeff Marx</b>		194- Data-Driven Model for Multiphase Leak Detection Using Dimensional Analysis Technique - <b>Abinash Barooah/.M. Rahman</b>	142 – ISA TR84 and Cybersecure - <b>Anupa Beharrysingh</b>	45 – Safety and Security Impact of Emerging Technologies: How Standards are Addressing the Needs of Owner/Operators- <b>Howard Elton</b>	4 – Don’t Get Overwhelmed – Flow Meter Selection - <b>Logan Mueller</b>
	10:30 – 11:00	144 - DID OSHA GET THE 14 ELEMENTS OF PSM CORRECT? -- Rethinking the 14 Elements of PSM as Processes – not Programs - <b>Gregory Milewski</b>		108 - Approach to Hazardous Area Classification Study for Ammonia Systems - <b>M Fakhrul Farhan Bin Mohd</b>	124 – Digital Twins/Industrial Cybersecurity - <b>Matt Malone</b>	125 – AI and Machine Learning - <b>Jimmy Miller</b>	178 – Digital Sensing Technology - <b>Bart Propst</b>
	11:00 – 11.30	33- Risk-Driven Model Predictive Controller- <b>Sahithi Akundi</b>		107 - ALARP Demonstration Approach during PHA Revalidation in Oil and Gas Facility - <b>Mohd Fadly Adnan</b>	64 – Security ICS - <b>Brad Mozlsek</b>		151 – Control Valve Performance - <b>James Beall</b>
	11.30 – 12:00	127 - Optimizing Fire and Gas detection of an Offshore Platform using 3D F&G Mapping and CFD Modeling: A Comprehensive Approach - <b>Basil Fysal</b>		99 - Asset Management: How to Approach the Digital Solution Evolution - <b>Nicolas Obando</b>			
	12:00 – 12.30	97 - Development of a Blast-Resistant Roll-Up Door - <b>Chris LeBoeuf</b>					
	11.30-1.00	Lunch					
	1.00 – 3.00						
	1:00 - 1:30						
	2:30 - 3:00						