

53 - Chemical Engineering and the Law Poster Session*Monday, March 25, 2024 5:00 PM - 7:00 PM**Hall B-1, New Orleans Ernest N. Morial Convention Center*

BOARD NUMBER	Title	First Name	Last Name
1	Machine Learning Detection of Radioactive Sources Using Maximum Detection Distance for Environmental Remediation	Nancy	Ibrahim
2	Biochemical Kinetics-Informed Ann Modeling for Cyanobacterial Biological Processes	Miriam	Nnadili

54 - Environmental Division Poster Session*Monday, March 25, 2024 5:00 PM - 7:00 PM**Hall B-1, New Orleans Ernest N. Morial Convention Center*

BOARD NUMBER	Title	First Name	Last Name
3	Environmental Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in the Polluted Coastal Cities	Ammar	Bakheet
4	Geochemical and Spatial Distribution of Minerals in the Tailings of Ife/Ijesa Gold Mine Zone, Nigeria	Abiodun	Fatoye
5	Integra 2.0: Bridging the Gap from Global-Scale Contamination to Tissue-Specific Dose Assessment, Integration of a Computational Systems Biology Approach.	Achilleas	Karakoltzidis
6	Análisis De Escenario Natech: Derrame De Hidrocarburo Desencadenado Por EL Impacto De Fenómeno Hidrológico Extremo EN Tanque De Almacenamiento	Julio Alfonso	DEL Vasto Urueña

55 - GCPS - Process Safety Poster Session*Monday, March 25, 2024 5:00 PM - 7:00 PM**Hall B-1, New Orleans Ernest N. Morial Convention Center*

BOARD NUMBER	Title	First Name	Last Name
7	Risk Assessment at Samsung Electronics	Soyoung	An
8	Risk Based Process Safety (RBPS) - Driving Operational Efficiency	Steve	Hawkins
9	FSM, FSA-4 SIS Periodic Revalidation (5 years)	Ulric	Roy
10	Green Hydrogen Project Safety Assurance Framework	Nagarajan	Ramachandran
11	Fortaleciendo Nuestra Cultura De Seguridad De Procesos a Partir De La Investigación De Incidentes	Natalia	Bellesi
12	Securing Owner/Operator Interest in Fast Track Project PHAs	Denise	Chastain-Knight
13	Review of Changes in Standards and Learnings from Incidents	Shailesh	Saraykar

14	An Introduction to Incident, Emergency and Crisis Management.	Gareth	Black
15	State of the Art in Modelling Pressure Tanks Under Fire Exposure	Giordano Emrys	Scarponi
16	The Long and Winding Road to Here	Andrew	Laflesh
17	Forjando Un Futuro Sostenible y Seguro: Estrategias De Implementación De PSM En La Industria Del Yodo	Cesar	Puma Medina
18	Human Reliability Analysis of Pre-Initiator and Initiator Events - What Methodological Adjustments Must be Adopted in Petro-Hra to Analyze Pre-Accident Operator Actions?	Gilsa	Monteiro
19	Investigating the Influence of 3D Model Completeness on Offshore Explosion Studies	Rafael	Pereira
20	A Digitalized, Cumulative Risk Management Approach to Maintenance Backlog Prioritization on High Hazard Installations	Tayo	Olusanya
21	Quantitative Consequence Analysis on Human Health Due to Accidental Toxic Release Using a Framework of Life Cycle Impact Assessment	Jo	Nakayama
22	Risk Criticality Assessment and Management (RCA&M) of Asphyxiation Hazards of Air Separation Unit	Dongwoon	Kim
23	Lay out Analysis As Part of Facility Sitting Study (FSS) at Vale	Camila Cunha Toledo	Guerald
24	Communicating Effectively: An Essentialist's View	Stephanie	Smith
25	Risk Assessment of Shock Sensitive Byproducts Formed from Chlorosilane Polymers in Semiconductor and Journey Towards Identifying Acceptable Risk Mitigation Measures	Yogesh	Koirala
26	Guidelines for Storage and Handling of Reactive Chemicals	Rahul	Raman
27	Process Safety Management Audit for Maturity Level PSM Deployment across Organization.	Naveen	Kumar
28	Ignoring Building Codes Can Result in Costly Design Rework	Andrew	Porter
29	Identifying and Mitigating Red Flags in MOC Process	Ali	Ayub
30	Practical Application of Mihazop® in a Non-O&G Facility	German	Luna Mejias
31	The Importance of Monitoring NON-Tolerable Scenarios and Its Recommendations	Mauricio	Quelhas

32	Effectively Communicating the Results of PHAs to a Non-Technical Audience	Stephen	Monana
33	Integrated PHAs, Bowties and Barrier Management	Olakunle	Olamilehin
34	Leadership Archetypes and SENSE of Vulnerability - How to Promote Sustainable Cultures Focused on Operational Discipline, through Leadership	Martin	Fernandez
35	How Safety Culture Drives Process Safety Perfomance	Leila	Sango
36	Enhancing Process Safety: Early Deviation Detection and Root Cause Analysis through AI for Ensuring Resilience in Complex Engineering Assets and Systems	Bjarne Andre	Asheim
37	Simulation of Transient Dispersion Model with Emergency Shutdown Response Time: A Comprehensive Approach	Basil	Fysal
38	Application of Large Language Models for Optimising Collection, Insight and Actions from Process Safety Observations	Angus	Carroll
39	Optimize Flare Design and Mitigate Flare Capacity Issues Using Dynamic Simulations	Shailesh	Saraykar
40	Mechanical Safeguards for Emergency Isolation Valves	Virginia	Vance
41	Human Error Limits Sil Rating	William	Bridges
42	Odorization of Propane and Natural Gas: Safeguard or Placebo	Scott	Berger
43	Alternatives to Car Seal Programs	Virginia	Vance
44	Process Safety Knowledge Management: Transitioning from Information to Knowledge	Tekin	Kunt
45	Seismic Evaluation of Storage Tanks Under New State Regulations	Yangyang	Wu
46	Performance of Full Containment Steel-Steel LNG Tanks Subject to Blast, Fire, and Impact Loads	Onder	Akinci
47	Process Safety Implementation for Mothball Facilities	Naveen	Kumar
48	Challenges and Tools for Implementing a Strong PSM Program in a Corporation	Roberto	Ruiz Vásquez
49	PSM Journey in Oman's Oq Gas Network so Far	Mahfoodh	Al Asi
50	Refinery Flare Turnaround during Covid Pandemic: A Success Story of Hpcl-Mumbai Refinery (Lessons Learned from the Emerging Risks like Covid)	Ashish	Kumar
51	Applicability of LOPA Summation on Scenarios with Multiple Bpcs Failure	Chee	Ong

52	The Important Bridge between Functional Safety and OT Security	Matthias	Kaiser-Pölleritzer
53	Water As an Ignition Source	Shay	Segev
54	Fingerprinting Hazardous Gas Leaks – Remote Sensing for Emissions	René	Braun
55	Safety Analysis for Process Intensification Involving Heat Integration	Brent	Young
56	A New Thermal Runaway Calorimeter for Battery Safety Evaluation	Surendra	Singh
57	An Analysis of Case Studies and Current Literature Regarding the Deflagration-to-Detonation Transition (DDT) Phenomenon	Michael	Bodnar
58	Consider Climate Change Impacts in Your Next Hazard Analysis, the Need of a New Perspective to Review Natural Hazards for Chemical Processes	Marco-Antonio	Medrano
59	PSM Elements Network	Shailesh	Saraykar
60	Uncover Relief System Design Deficiencies to Enhance Process Safety	Akash	Majumdar
61	Applying OSHA PSM Elements at Non-Covered Facilities.	Nicholas	Beutel
62	“Alignment of PSM Elements with Turnarounds – an Improved Approach” (OR)“Implementation of PSM Elements into Turnarounds – an Improved Approach”	Swarup	Bade
63	2023 Washington State “PSM for Refineries” Rulemaking and Lessons-Learned from California 5189.1 and Calarp P4	Steven T.	Maher
64	When Uninterrupted Power Supply (UPS) Was Interrupted, Safety Critical Elements Could Save the Plant	Yong Kiat	Lee
65	Developmet of Hiyari-Hatto-DX to Prevent Human Error and to Enhance Equipment Reliability	Tomoya	Ohtani
66	Continued Operation Assurance - Utilization of a Modified HAZOP Study for Continued Operation of a Facility/Equipment Beyond Their Scheduled Maintenance	Wayne	Mohan
67	Asset Integrity and Reliability Implementation Challenges and Failure Factors in Developing Countries	Hany	Tawfek
68	Vulnerability Index: A Novel Risk Appraisal Approach	Harsh	Kujur
69	Zero Purge Gas Emission for New Compression Stations Designed for Natural Gas Pipeline Transmission	Herik Kaue	Coelho

70	A Different Kind of Backup Power - Green Hydrogen Fuel Cells	Lauren	Madden
71	The Flow Method: An Improved Hazop Methodology	Brandon	Morris
72	Tips to Streamline Your PHA (and your investment)	Steven T.	Maher
73	A Simplified Method for the Economical Evaluation of Safety-Related Modifications for a Running Facility	German	Luna Mejias
74	The Critical Role of Accurate Hazmat Classification to Determine Occupancy Classification Required By Model Building & Fire Codes	Bradley	Silva
75	This Contribution Aims to Answer the Question Whether There Are Differences in the Occurrence, Manifestations and Consequences of Major Accidents in the EU.	Luboš	Kotek
76	Projects to PHAs: My Path to Process Safety	Kerissa	Bowen
77	Developing Process Engineers into Effective HAZOP/LOPA Facilitators	Steven T.	Maher
78	Top 10 Hits for Common Misses in Process Safety Systems	Caitlin	Mullan
79	Solving Loading and Unloading Operations Challenges with Knowledge Automation	Christian	McDermott
80	Evaluating the Blast Effects Associated with Deflagration to Detonation Transition Originating Site Specific Congested Regions	Scott	Davis
81	Using Lab Test Data to PREVENT DUST EXPLOSIONS	Vahid	Ebadat
82	Lessons in Chemistry: Integrating Human Factors into PSM of Aging Facilities	Sarah	Acton
83	Process Safety Management Implementation in Outsourced Operations & Maintenance Vendors	Naveen	Kumar
84	Engineering Framework to Assess Equipment Reliability of Air Fin Coolers in Process Plant Industries	Dheerajkumar	Narang

56 - Poster Session: Industry 4.0/Analytics & AI

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BOARD NUMBER	Title	First Name	Last Name
85	Practical Application of a Mixture-Amount Design of Experiment to Optimize a Complex Product Formulation.	Brian	Clark
86	Jmp-Fastman: All-in-One Tool for Data Exploration and Fault Detection Analysis	Kyle	Territo

87	Real-Time Design Modeling for Control Valve Size and Type Using Machine Learning and Big Data Streaming System	AReum	Lee
88	AI-Enabled Dynamic Risk Register: A Novel Approach to Risk Management	Bao Lin	Tan

57 - Poster Session: Process Development Division

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BOARD NUMBER	Title	First Name	Last Name
89	Learning from Incident (LFI)	Wayne	Mohan
90	Effects of Alumina Films on N-Doped Carbon Nanotubes/Graphene Composites As Anode Materials of Lithium-Ion Batteries	Chuen-Chang	Lin
91	Purification of S-1-Phenylethanol from the Enantiomer Mixture By Three-Phase Crystallization	Lie-Ding	Shiau
92	Chevron Richmond Refinery Fire Incident Investigation	Celesta	Cox
93	Temperature-Dependent V-Type Isotherm Models: Applied to Water Vapor Adsorption on Metal-Organic Frameworks	Cristian	Cardenas
94	N.D.K. Crystal Inc. Explosion with Offsite Fatality	Olivia	Dohm
95	Synthesis and Evaluation of a Diels-Alder Polyphenylene with Tethered Multication Moieties	Ana	Soares
96	Unraveling the Impact of Aging on Diels Alder Polyphenylene (DAPP) for Applications below Tg	Nolan	Hendrickson
97	An Examination of the Toxic Chemical Release at Mgpi Processing, Inc.	Olivia	Clark
98	Comparative Evaluation of Surfactants with Diverse Tail Structures for Clay Swelling Inhibition	Muhammad Shahzad	Kamal
99	Philadelphia Energy Solutions (PES) Refinery Fire and Explosions	Alejandro	Lira
100	Optimization of the Use of Pyrolysis Waste Oil As a Feedstock for NCC Process through Hydrotreating and Hydrocracking	Sukhyun	Lim
101	Simulation of Bitumen Partial Upgrading Process	Hung	Pham
102	Unleashing the Power of Hybrid Modeling for Process Design and Optimization	Reza	Haghpanah
103	New Viscosity Models Based on Machine Learning and Classical Regression	Adel	Elsharkawy

58 - Poster Session: Separations Division

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BOARD NUMBER	Title	First Name	Last Name
104	A Quantum Chemical Study on the CO ₂ -Amine Reaction Pathway	Nahoko	Kuroki
105	A Systematic Study on the Influence of Oriented Nanoparticles in Polymer Nanocomposite	Abayomi	Adeleke
106	Design of Heat-Integrated Pressure Swing Distillation Process Using a Graphical Pinch Analysis	Donggun	Kim
107	Prediction of Main Transition Velocities and Gas Holdups in a Bubble Column Operated with Aqueous Alcoholic Solutions	Stoyan	Nedeltchev
108	A Novel Helical Descending Liquid-Bridge for Continuous Demulsification	Liang	Yuan

59 - Poster Session: Fuels and Petrochemicals Division

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BOARD NUMBER	Title	First Name	Last Name
109	Implementation of a Process Safety Management System and Inherently Safer Design Strategies for a Rehabilitated Bioethanol Facility in Trinidad & Tobago	Safiyyah	Wahid
110	From Hydrogen Economy to Ccus and Beyond: Unleashing the Power of Digital Solutions in Sustainability	Ana	Khanlari, PhD
111	Displacement Efficiency and Production Characteristics of in-House Developed Surfactants for Enhanced Oil Recovery	Syed Muhammad Shakil	Hussain
112	Insecticidal Efficiency of Copper Nanoparticles for Control of Khapra Beetle Trogoderma Granarium	Bruce	Adkins
113	Development of Nonionic Demulsifiers for Produced Water Treatment	Muhammad Shahzad	Kamal
114	Synthesis and Characterization of Magnetite Nps Decorated Onto ACF, Heat-Treated g-C ₃ N ₄ , Pure CS and OSCS Nps for the Efficient Removal of MB and CV Dyes from Aqueous Solution	Ashish	Bhagat
115	Synthesis of Magnetic Nanoparticles Anchored on Carbon Nano-Matrix for the Efficient Adsorptive Removal of Crystal Violet from Aqueous Solution	Ashish	Bhagat

60 - Poster Session: Emerging Technologies in Clean Energy

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116	Development of a Flat-Sheet Composite Membrane for Alkaline Water Electrolysis: A Statistical Study Using Response Surface Methodology	Ruchika	Gupta
117	Engineering the Cyanobacterial Photosynthetic Electron Transport Chain to Improve Photosynthetic Efficiency.	Sumant	Brahmankar
118	Conversion of Coal Tar into Needle Coke for Utilization in Graphite Electrode & Li-Ion Battery	Naveen	Kumar
119	Fire and Explosion Hazards Associated with Transfer of Powders into Flammable Solvents	Emmanuel	Addai