2019 INTERNATIONAL SYMPOSIUM
IN MEMORY OF DR. SAM MANNAN
Beyond Regulatory Compliance: Making Safety Second Nature
In Association with iChemE

DAY 1: TUESDAY, OCTOBER 22 | 6:30AM – 8:00AM | Registration and Continental Breakfast

The Frank P. Lees Memorial Lecture - Jerry Wascom
Vice President, Operational Excellence – Safety, Security, Health and Environment, ExxonMobil Corporation.

State of the Mary Kay O'Connor Process Safety Center Address – Dr. Jim Holste, MKOPSC Interim Director

Break and Exhibit Hall | Ballroom

Track I: Management, Operational, and Offshore
Track Lead: Trish Kerin

Track II: Human Factors – People in Action
Track Lead: Jeff Thomas

Track III: Design and Analysis
Track Lead: Robert Bellair

Track IV: Research and Next Generation
Track Lead: Nick Gonzales

Tracks

ROOMS

Break and Exhibit Hall | Ballroom

Chairs: Murtaza Gandhi, Yuan Lu

Sessions

Chairs: Marc Saenz, Mark Slezk

9:00AM

Leveraging the Power of Industry 4.0: ORM Hazards
Luis M.F. Garcia Garcia and Gene Cammock, Siemens

9:45AM

Are you struggling with your Asset Integrity program?
Katherine Anderson and Neil Prophet, ioMosaic

Europe

10:30AM

Choosing Functional Safety Field Instrumentation – Certified vs. Prior Use – Fundamentals of VDI 2180
Luis F.M. Garcia Garcia and Gene Cammock, Siemens

11:15AM

Engaging Your Safety Culture Appreciately
Dana Cooper, Cooper Hayes LLC

12:00PM

Lunch and Exhibit Hall | Ballroom

Chairs: Divya Narayanan, Elise Diaz

Sessions

Chairs: Mark Slezk, Sara Saxena

12:45PM

Model- Based Systems Engineering for Design, Management, and Governance of Protective Systems
Dr. Diana Gallart Hamilton, Tecnologico de Monterrey Campus Estado de Mexico, Mexico, TAMU

1:30PM

Effective Remedies for Enhancing Safe Operations Through Analysis of Organizational Safety Climate
Nir Keren, Kochi Refinery, India

2:15PM

Break and Exhibit Hall | Ballroom

Chairs: Murtaza Gandhi, Yuan Lu

Sessions

Chairs: Sara Saxena, Marc Saenz

1:30PM

Analysis of Reliability Mapping in Refining Industry: Identification of Critical Regions and Interventions in Complex Production Systems
Salvador Avila Filloa, Federal University of Bahia

2:15PM

Discussion of real-world cases where over- ing may not be an applicable scenario
Bob Simi, Siemens

3:00PM

Crude Oil by Rail Accidents: Cross-industry Learning for High Hazard Sectors
Gabor Posta, Arup

3:45PM

Are biases towards the recent past causing us to unintentionally expose personnel to increased levels of risk?
Karen Vivas, BakerRisk

4:30PM

Refrigerated Tanks Base Plate Heating Hazards: A Case Study of Ethylene Tanks
Dr. Mahesh Murthy, SABIC

5:15PM

The Importance of Misalignment to Reduce Risk and Prevent Disasters
Mark Galley, BakerRisk

Poster Session | Ballroom

Cocktail Reception with Exhibitors “Scavenger Prizes at 5:45PM” | Ballroom
**Day 2: Wednesday, October 23 | 7:00AM – 8:00AM | Registration and Continental Breakfast**

**Ballroom**

**Keynote Speaker: Dr. Elaine Oron**

**TEES Eminent Professor, Department of Aerospace Engineering, Texas A&M University Member, National Academy of Engineering**

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**Break and Exhibit Hall | Ballroom**

### Tracks

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<td>Chairs: Divya Narayanay, Elise Diao</td>
<td>Chairs: Mark Slezak, Malc Saenz</td>
<td>Chairs: Steven Zhang, Jeremy Surgeon</td>
<td>Chairs: Katie Mulligan, Nick Gonzales</td>
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### Rooms

- **Ballroom**
- **Break and Exhibit Hall**
- **Break and Exhibit Hall | Scavenger Prizes at 2:30PM | Ballroom**

### Sessions

1. **Trisha Kerin**
   - **9:45AM**

2. **10:15AM**
   - Study of FSUJ-LNG System Based on a Quantitative Multi-cluster Risk Informed Model: Chenzi J, MKOPSC

3. **10:45AM**
   - How to Improve the Trust in Safety Related Sensors: Wolter Last, Next Global

4. **11:15AM**
   - Biocompatible Herder for Rapid Oil Spill Treatment over a Wide Temperature Range: Dall Huang and Zhengdong Cheng, MKOPSC

5. **11:45AM**
   - Lunch and Exhibit Hall | Ballroom

6. **Incident Response and Project Planning**

7. **Safety Culture, Leadership, and Training**

8. **Risk Assessment**

9. **Reacting Chemicals**

10. **12:45PM – 2:15PM**
    - **Incident Response and Project Planning**
    - Beyond Participation-A Case Study for Driving Employee Engagement in Your Process Safety Program: Tony Bock, BP-Cherry Point Refinery
    - Exposure of Fabrics Used in Personal Protective Equipment to Combustible Dust Flashes: Claudia V.B. Favero, Exponent
    - Integration of Process Safety into Engineering Design during Offshore Project Execution: Edward Liu, Wood PLC

11. **3:00PM – 4:30PM**
    - **Operational Lessons**
      - A Case Study From a Fire Incident in Naphtha Heater Caused by Sulfidation Chao Pin Wen, Nan Ya Plastics Corporation
      - How to Treat Expert Judgement? With certainty it contains uncertainty! Hans Pasman, MKOPSC
      - Lessons Learned – How to Make Them Stick: Jack Chonsek, KnowledgeOne LLC

12. **4:30PM – 5:45PM**
    - Symposium Banquet at Kyle Field (Ticketed Event)

13. **Break and Exhibit Hall | Scavenger Prizes at 2:30PM | Ballroom**

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**Dinner: 6:30PM (Texas A&M University Mascot Reveille is stopping by for photograph session with Banquet Attendees)**

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**Engineering Ethics Session, Lindsey Bredemeyer (1hr)**

**Break and Exhibit Hall | Ballroom**

**5:45PM**

- Kyle Field tour starts at 5:45pm (Optional with Banquet Ticket)

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**6:30PM**

- Dinner: 6:30PM (Texas A&M University Mascot Reveille is stopping by for photograph session with Banquet Attendees)
### DAY 3: THURSDAY, OCTOBER 24 | 7:00AM – 8:00AM | Registration and Continental Breakfast

**Organizational Structure: The key to a culture of safety in hazardous industries**

**Keynote Speaker:** Dr. Andrew Hopkins  
Emeritus Professor, College of Arts and Social Science, Australian National University

#### Symposium Program Announcements

**Break and Exhibit Hall | Ballroom**

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**Rooms**

- CORPS  
- ROSS  
- REVEILLE  
- HULLABALOO

**Session chair:** Divya Narayanan, Elise Diaz  
**Chairs:** Marc Saenz, Mark Slezak  
**Chairs:** Rob Bellair, Bin Zhang  
**Chairs:** Brenton Drake, Nick Gonzales

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| 10:00AM | PSM Alarm Management – “It’s Alarming”  
Dana Cooper, Cooper Hayes LLC  
Analysis of the Low Perception of Risk: Causes, Consequences and Barriers  
Salvador Ávila Filho, Federal Universidad de Bahía  
How Dynamic Simulation Helped Mitigate Vape Disposal System  
Kanik Mianir and Omi Soni, Siemens  
Impact of particle density on dust cloud characteristics in the minimum ignition energy testing apparatus using high-speed digital in-line holography  
Christian Scheweizer, TAMU |
|---------|----------------------------------------|----------------------------------------|------------------------|------------------------|
| 10:30AM | Safeguards Verification  
Abdullah AlMulla, SABIC  
Analysis of the Low Perception of Risk: Causes, Consequences and Barriers  
Salvador Ávila Filho, Federal Universidad de Bahía  
Fire and Gas Hazard Mapping Continues to Require Engineering Judgment  
William Pittman, Micropack (Detection) Americas  
Modelling of the plume rise phenomenon due to warehouse fires considering penetration of the mixing layer  
Sonia Ruiz-Pérez, Gexcon |
| 11:00AM | Data-Driven Prescriptive Maintenance Sched-  
uling and Process Optimization  
Christopher Gordon, MKOPSIC  
Enhancing Safety Through Strengthening Human Barrier  
Sridhar Ketavarapu, Kuwait Oil Company  
Inherent Safety as a driver for business success in the Oil and Gas Industry  
Hari Attal, Chevron  
Collision of Convex Objects for Calculation of Porous Mesh in Gas Explosion Simulation  
Sávio Viana and Tatiele Dafflor Fersinha, University of Campinas |
| 11:30AM | More effective use of Leading Indicators  
Gregg Klilhoe, BASF Corporation  
Crosswalk of Human Reliability Methods of Offshore Oil Incidents  
Dr. Tina Miyake, Idaho National Laboratory  
Studying the Inherent Safety of Flare Utilization Alternatives during Abnormal Operations  
Vasiliki Kazantz, University of Thessaly  
Effects of non-uniform blockage ratio and obstacle spacing on flame propagation in premixed H2/O2 mixtures  
Cassio Brunoro Ahumada, MKOPSIC |
| 12:00PM | Networking Lunch | Scavenger Prizes at 12:15PM | Ballroom |

**Tour to Disaster City (Ticketed Event)**  
Buses load at 12:30 located at the Glass Doors Across From Century II Ballroom Doorway  
**Tour 1:00-2:30PM**

**mkosymposium.tamu.edu**
Process Safety and the Race for the Bomb: Process History Poster Presentation
Bredemeyer, Bredemeyer Engineering

Exposure of Fabrics Used in Personal Protective Equipment to Combustible Dust Flash Fires
Claudio V.B. Favero, Exponent

Machine Learning Prediction of Hydrocarbon Mixture Lower Flammability Limits Using Quantitative Structure-Property Relationship Models
Zeren Jiao, MKOPSC

Reduction Effects of Dike Overtopping under Catastrophic Failure using CFD Simulation.
Yoojin Kim, Ajou University

Influence and Effects of the use of Flue Gas- Water Steam on the API N-80 Steel
Juan Orozco, Universidad Industrial de Santander

Effects of dust adhesion forces on cloud characteristics in minimum ignition energy (MIE) apparatus
Taylor Ritchie, TAMU

Thermal Hazard Assessment of Benzoyl Peroxide Mixed with Dry Fire-Extinguishing Chemicals
Yueqi Shen, MKOPSC

Reaction Hazard Study for H2O2 Oxidation of 2-Octanol in a Heterogeneous Batch Reactor
Yue Sun, MKOPSC

2019 INTERNATIONAL SYMPOSIUM EXHIBITORS

• aeSolutions
• Amplify Process Safety, LLC
• BakerRisk
• AcuTech Group, Inc.
• ChEGSA
• Chemical Processing
• Cognascents Consulting Group, Inc.
• Curtiss-Wright
• Danforth
• DNV GL USA, Inc.
• Gexcon
• Guyon Baptiste
• Hunter Buildings
• IFO Group
• Institution of Chemical Engineers
• ioMosaic
• ISTC - Industrial Safety Training Council
• Micropack Detection (Americas)
• MKOPSC
• PSRG Inc.
• Quest Consultants Inc.
• Safespill Systems
• Siemens Process & Safety Consulting
• TEEX
• Thornton Tomasetti
• Trinity Consultants