

# WELCOME



**J. Todd Creeger**  
President, ConocoPhillips Qatar



**Khalid Al-Hemaidi**  
Chief Operating Officer, Health Safety  
Environment & Quality, Qatargas



**Dr. César O. Malavé**  
Dean, Texas A&M University at Qatar

## Texas A&M University at Qatar, ConocoPhillips, and Qatargas warmly welcome you to the Qatar Process Safety Symposium 2019.

Continuous engagement is key to the development of operational standards that align with international best practices. The long-standing and collaborative relationship between Texas A&M University at Qatar and ConocoPhillips has been defined by a shared commitment to dialogue, transparency, and social responsibility.

Qatargas, a flagship national institution, reflects these same values and joins as industry partner of the symposium. Together, we want to emphasize our sincerest gratitude towards our collaborators as both friends and colleagues. We continue to support one another in our ability to carefully reflect on current procedures and implement proactive safety standards.

Protecting people and environment is a foundational principle for each of our organizations. We aim to prevent all accidents, but we must limit their consequences when they do happen. This unequivocal commitment guides our local, regional, and international activities.

Qatar's rapid industry expansion follows the

country's commitment to the aspirations outlined in Qatar National Vision 2030. This year, we acknowledge human error as an inevitable event. While recognizing this, we must work to reduce these occurrences, and more importantly, work towards the overall design of processes to minimize the effects of human error. We are collectively confident that we can make meaningful strides towards innovative methods of prevention and mitigation that include fail-safe design in the process industry.

Since 2010, this symposium has garnered support from the local community as it gradually advances knowledge and provides a platform to share our experiences for the improvement of process safety. Today, we proudly commemorate a decade of collaboration between industry and academia.

Thank you for your contribution to the process safety dialogue. Over the course of the next two days, we look forward to engaging in informative discussions that can benefit both you and your organizations.

# AGENDA

Sunday, 14 April 2019

7:30 – 8:30 a.m.	<b>Registration, refreshments, poster session, exhibitions</b>
	<b>Morning plenary session</b>
8:30 – 8:45 a.m.	<b>Memorial for Dr. M. Sam Mannan</b> Dr. Tomasz Olewski, Dr. Simon Waldram, Dr. Luc Véchet
8:45 – 8:50 a.m.	<b>QPSS opening video</b>
8:50 – 8:55 a.m.	<b>Welcome</b> Dr. César O. Malavé Dean, Texas A&M University at Qatar
8:55 – 9 a.m.	<b>Welcome</b> Todd Creeger President, ConocoPhillips Qatar
9 – 9:15 a.m.	<b>Memorandum of Understanding signing ceremony and Qatargas welcome</b> Khalid Al-Hemaidi Chief Operating Officer, Health Safety Environment & Quality, Qatargas
9:15 – 9:25 a.m.	<b>Awards ceremony</b> Todd Creeger, Khalid Al-Hemaidi, Dr. César O. Malavé
9:25 – 9:30 a.m.	<b>Keynote address</b> Dr. Ali Al-Mulla Gulf Organization for Industrial Consulting “10th Year Anniversary of QPSS”
9:30 – 9:45 a.m.	<b>Coffee break, poster session, exhibitions</b>
9:45 – 11 a.m.	<b>Keynote presentation</b> Dr. Todd Conklin Human & Organization Performance Consulting “The place where humans meet processes”
11 – 11:15 a.m.	<b>Coffee break, poster session, exhibitions</b>

	<b>Track I: Process safety culture</b> Chair: Dr. Stephanie Payne	<b>Track II: Human factors engineering</b> Chair: Dr. Tomasz Olewski
11:15 – 11:45 a.m.	<b>Dr. Zsuzsanna Gyenes</b> IChemE “Presenting creeping changes via case studies”	<b>Aleksander Pachole</b> ATEST-GAS “The Sigma Gas ‘Green Light,’ a design philosophy for enhanced human interfaces in gas detection systems”
11:45 – 12:15 p.m.	<b>Mike Snakard</b> Snakard Consulting “PHA and process safety culture”	<b>S. Balasubramaniasamy Sankaraiah</b> iFluids Engineering “Human error elimination through customized configuration in distributed control systems”
12:15 – 1:15 p.m.	<b>Lunch and networking</b>	
	<b>Track III: Process safety culture</b> Chair: Dr. Stephanie Payne	<b>Track IV: Human factors engineering</b> Chair: Dr. Tomasz Olewski
1:15 – 1:45 p.m.	<b>Nadeem Ahmad Bashir</b> QAFAC “QAFAC process safety culture evaluation”	<b>Dr. Fadwa Eljack</b> Qatar University “Application of i-SDT for reducing risks associated with human factors”
1:45 – 2:15 p.m.	<b>Michael Newman</b> Coventry University, UK “How safe is your culture? Going beyond safety report data”	<b>Rasim Qureshi</b> QAPCO “Safety in design during engineering phases”
2:15 – 2:30 p.m.	<b>Coffee break, poster session, exhibitions</b>	
	<b>Afternoon plenary session</b> Chair: William Denney	
2:30 – 3 p.m.	<b>Dr. Stephanie Payne</b> Texas A&M University, USA “The relative influence of national culture compared to safety culture on workplace safety”	
3 – 4 p.m.	<b>Panel discussion 1</b> Dr. Todd Conklin, Khalid Al-Hemaidi, Dr. Stephanie Payne, Dr. Zsuzsanna Gyenes “Human error happens. How do we overcome the inevitable?” Chair: William Denney	
4 p.m.	<b>End of the first day</b>	

# Monday, 15 April 2019

8 – 8:30 a.m.	<b>Registration, refreshments, poster session, exhibitions</b>
	<b>Morning plenary session</b> Chair: Dr. Tomasz Olewski
8:30 – 8:40 a.m.	<b>Keynote address</b> Stephen Combey Manager, Corporate HSE and Quality, Qatar Petroleum “Process safety—it’s all about people”
8:40 – 9:25 a.m.	<b>Keynote presentation</b> Mohamed Basser and Amar Al Khuzaei Dolphin Energy Qatar “Journey through the safety culture at Dolphin Energy Qatar”
9:25 – 10:30 a.m.	<b>Keynote presentation</b> Dr. Steve Jarvis “From CEO to torque wrench: The perilous journey of the safety initiative, from boardroom to the everyday worker, and how to make it work”
10:30 – 10:45 a.m.	<b>Coffee break, poster session, exhibitions</b>

	<b>Track V: Process safety competency</b> Chair: Dr. Tomasz Olewski	<b>Track VI: Human factors in safety management systems</b> Chair: Atif Ashraf
10:45 – 11:15 a.m.	<b>Faysel Abdulla Al-Romaihi</b> Qatar Petroleum “How safety case safeguards from human error”	<b>Ryan Price</b> Q-Chem “Utilizing three points of control to prevent worker fatalities”
11:15 – 11:45 a.m.	<b>Rajeev Kumar</b> ioMosaic “Process safety competency”	<b>Dr. Konstantinos E. Kakosimos</b> Texas A&M University at Qatar “The human factor in emergency response and evacuation”
11:45 – 12:15 p.m.	<b>Dr. Luc Véchet</b> Texas A&M University at Qatar “Building process safety competency: Challenges and opportunities”	<b>Praveen Dhote</b> Siemens “An approach to improve process safety management audits”
12:15 – 1:15 p.m.	<b>Lunch and networking</b>	
	<b>Afternoon plenary session</b> Chair: Dr. Luc Véchet	
1:15 – 1:45 p.m.	<b>Review and analysis of incidents in the world since QPSS 2018 by MKOPSC-Q students</b> Wafa Imran, Ola Srour, Neil Adia	
1:45 – 2:15 p.m.	<b>Dr. Simon Waldram</b> Waldram Consultants Limited “Discovering the nuggets of gold—and being a wise custodian”	
2:15 – 2:30 p.m.	<b>Coffee break, poster session, exhibitions</b>	
2:30 – 3 p.m.	<b>Dr. Todd Conklin Podcast</b> Podcast	
3 – 3:50 p.m.	<b>Panel discussion 2</b> “10 years of journey through Qatar process safety culture and human performance development” Dr. Steve Jarvis, Dr. Luc Véchet, William Denney, Mohamed Basser Chair: Dr. Simon Waldram	
3:50 – 4 p.m.	<b>And the winner is ...</b>	

# POSTERS

## **Experimental evidence of liquid nitrogen spill on sea (Qatari) water**

Jasir Jawad, Jack Altwal, and Tomasz Olewski  
*Mary Kay O'Connor Process Safety Center,  
Texas A&M University at Qatar*

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## **Influence of particle size on sulfur dust explosion properties**

Jack Altwal, Tomasz Olewski, Luc N Véchet  
*Mary Kay O'Connor Process Safety Center,  
Texas A&M University at Qatar*

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## **Modeling of a gas release from underground pipeline**

Ola Srour, Ibrahim L. Daoudi, Konstantinos E.  
Kakosimos, Luc N. Véchet  
*Mary Kay O'Connor Process Safety Center,  
Texas A&M University at Qatar*

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## **A dosage-based methodology for simulating crowd evacuations in toxic environment**

Neil Alvin B. Adia, Shaikh M. Nawayd, Konstantinos E.  
Kakosimos, Luc N. Véchet  
*Mary Kay O'Connor Process Safety Center,  
Texas A&M University at Qatar*

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## **Investigating the gas dispersion from a subsea gas release in shallow waters**

Wafa Imran, Moustafa Ali, Konstantinos E.  
Kakosimos, Luc N. Véchet  
*Mary Kay O'Connor Process Safety Center,  
Texas A&M University at Qatar*

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## **The Bhopal tragedy: Lessons learned**

Arshad Mohamed Ali, Mohammad Hassan, Safeer  
Hafeez, Suhaim Al-Qurani  
*Chemical Engineering, Texas A&M University at Qatar*

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# IN REMEMBRANCE

Dr. M. Sam Mannan, 1954-2018



For the first time in years, an important figure will be absent from the Qatar Process Safety Symposium, someone who was instrumental in establishing the Mary Kay O'Connor Process Safety Center in Qatar, and who was no stranger to process safety conferences and seminars across the world. This will be the first QPSS without Dr. Mahboobul Sam Mannan.

Born in Comilla, Bangladesh, in 1954, he went to Dhaka College before earning a B.S. in chemical engineering from the Bangladesh University of Engineering and Technology Dhaka (BUET). He was a practicing engineer for a few years before he was inspired to continue his education, earning his M.S. (1983) and Ph.D. (1986) from the University of Oklahoma. After observing a lack of safety training, he started working in process safety at a national engineering services

company, RMT Inc. In 1997, and with the encouragement of process safety pioneer Dr. Trevor Kletz, Mannan left RMT and joined Texas A&M University as a professor and the director of the newly created Mary Kay O'Connor Process Safety Center (MKOPSC).

His impact on Texas A&M was something nobody could have predicted. MKOPSC became a world-renowned center for process safety leadership, research, innovation, and excellence, and a significant part of that could be attributed to Mannan's leadership. Despite a vast physical presence, you couldn't find anybody more kind and encouraging to both students and faculty. He was always ready to take students under his wing and guide them through graduate education and life. By the end of his career, he had mentored 61 Ph.D. and 79 M.S. students, an impressive record

He was a true visionary and pioneer, and his impact on the field will never be forgotten. His legacy lives on through his students and his partners from academia and industry.

by any standard. His classes became a favorite as he taught Process Safety with an unrivaled passion and regaled the students with stories of his experience; who else would tell you to eat dessert after lunch to avoid boiler explosions!

Texas A&M acknowledged his years of service with the TEES Engineering Genesis Award (2014), Charles W. Crawford Service Award (2014), Bush Excellence Award for Faculty in Public Service (2012), and the Association of Former Students' Distinguished Achievement Award for Teaching (2003).

His influence did not stop with The Texas A&M University System. He established key satellite safety centers, and partnerships in nations such as Qatar, China, and Bangladesh, often sending his students there to gain international experience and bringing students from

those countries to Texas to experience life at MKOPSC. His influence could be seen at the Technical University of Lodz in Poland, which awarded him both the Medal of Honor (2008) and Doctoris Honoris Causa (2011). The Rajiv Gandhi University of Petroleum Technology in India has recognized him with the title of Distinguished Honorary Professor and his alma mater, BUET, made him the first holder of the M.A. Naser Chair. He was a Fellow of both IChemE and AIChE.

Mannan is survived by his wife and their two daughters. He was a true visionary and pioneer, and his impact on the field will never be forgotten. His legacy lives on through his students and his partners from academia and industry.

# ORGANIZING COMMITTEE

## Texas A&M at Qatar



**Dr. Tomasz Olewski**

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**Carol Nader**

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**Atif Mohammed Ashraf**

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The organizing committee would like to thank the student and staff members of the Mary Kay O'Connor Process Safety Center – Qatar for their invaluable help and support for the symposium:

- Jack Altwal
- Ola Srour
- Wafa Imran
- Neil Adia

## ConocoPhillips Qatar



**William R. Denney Jr.**

**Technical Manager**



**Sarah Mroueh**

**Communications and Public Affairs Manager**



**Hamda Al Kuwari**

**Events and Design Coordinator**

## Qatargas



**Jacques de Bruijn**

**Process Safety and Risk Manager**