

## Modalities of Academia panel discussion on Process Safety

**(Day 03) Date: December 16, 2021, Duration: 90 minutes**

**Moderator:** Louisa Nara, CCPSC – Global Technical Director CCPS

**Proposed (Invited) Panel members:**

- **Tracy Carter-** Northeastern University, USA  
Part-Time Instructor in the Chemical Engineering Department; Comm Lab Program Coordinator for Bioengineering, Chemical, and Civil and Environmental Engineering
- **Prof. Rajagopalan Srinivasan IIT Chennai-** Advisor (Alumni Relations), Head, American Express Lab for Data Analytics, Risk & Technology (DART), Professor of Chemical Engineering at Indian Institute of Technology, Madras.
- **Dr. SIN Siang-Meng, Ivan;** Associate Professor & Program Chair for NUS Master of Science in Safety, Health & Environmental Technology, Singapore
- **Ms. Mieko Kumasaki-** Associate Professor from Yokohama University, Japan
- **Dr. Risza Rusli-** Dr. Risza Rusli- Head, Centre of Process Safety (CAPS); Associate Prof Dr Risza Rusli is a lecturer in the Chemical Engineering Department, University Technology Petronas (UTP), Malaysia.

The corresponding times for Panel Discussion

Location	Local Time	Day	Start Time	End Time	Time Zone
<a href="#">Mumbai</a> (India)	16 December 2021	Thursday	10:00 AM	11:30 AM	<a href="#">IST</a>
<a href="#">Singapore</a> (Singapore)	16 December 2021	Thursday	12:30 PM	2:00 PM	<a href="#">SGT</a>
<a href="#">Tokyo</a> (Japan)	16 December 2021	Thursday	1:30 PM	3:00 PM	<a href="#">JST</a>
<a href="#">Seoul</a> (South Korea)	16 December 2021	Thursday	1:30 PM	3:00 PM	<a href="#">KST</a>
<a href="#">Kuala Lumpur</a> (Malaysia)	16 December 2021	Thursday	1:30 PM	3:00 PM	<a href="#">MYT</a>
<a href="#">New York</a> (USA)	15 December 2021	Wednesday	11:30 PM	1:00 AM	<a href="#">EST</a>
Houston (USA)	15 December 2021	Wednesday	10:30 PM	12:00 AM	CST



## **Brief Introduction:**

Whether graduates go into the petrochemical, pharmaceutical, agricultural, biochemical, biomedical, electrochemical or any other field in which chemical engineers practice, they will practice process safety. Governments around the world require that industry demonstrate that they operate with tolerable risk to society. Therefore, chemical engineering graduates must be as well versed in process safety as they are in the traditional aspects of chemical engineering education.

A panel will consist of combination of the representatives (HOD/Professors) from universities having process Safety in their curricula and Industry leaders. Panelist will discuss issues of concern to academia including success stories.

The panelist will share their views and experience on following topics

- Current Process Safety curriculum/topics offered by universities and upcoming changes
- Challenges in delivering Process Safety education
- Expectations and support required from the industry

This panel discussion will also provide the platform for the interaction between industries and academia. Each panelist will make an opening remark following which views will be exchanged, between both the panelists and the audience. The discussions will be steered by the facilitator.

## **Previous panel discussions at Global Summit on Process Safety:**

### **2019: Singapore (5<sup>th</sup> GSPS)**

**(Day 02) Date: 23<sup>rd</sup> October, 2019, Duration: 90 minutes**

**Moderator:** Louisa Nara, CCPS – Global Technical Director CCPS

**Panel members:**

1. Ms. June Wispelwey, Executive Director & CEO, AIChE, USA
2. Dr. Kristen Kulinowski, Interim Executive Authority, Chemical Safety Board (CSB), USA
3. Mr. Tetsuo Fuchino, Associate Professor, Tokyo Institute of Technology, Japan
4. Assoc. Prof. Lim Kok Hwa, Deputy Cluster Director, Singapore Institute of Technology (SIT), Singapore
5. Assoc. Prof. Sin Siang Meng Ivan, Dept. of Chemical & Biomolecular Engineering, National University of Singapore (NUS)
6. Madam Sulo Belawan; Head, HSSE PETRONAS Gas & New Energy, Malaysia
7. Dr. Liu Yi, Professor, College of Chemical Engineering, China University of Petroleum, China

### **2017: Japan (4<sup>th</sup> GSPS)**

**(Day 02) Date: 13<sup>th</sup> September 2017, Duration: 90 minutes**

**Moderator:** Louisa Nara, Technical Director CCPS

**Proposed Panel members: (4-5 Panel Members)**

1. Kristen Kulinowski; US CSB Board Member; CSB & Professor at Rice University
2. Dr. Risza; UTP, Malaysia
3. Prof. Arai; Tokyo University
4. Prof. Suzuki; Okayama University
5. Prof. Atsumi Miyake, Yokohama University
6. Prof. peter sumardi, PERTAMINA University, Indonesia

### **2016: Saudi Arabia (3<sup>rd</sup> GSPS)**

**(Day 02) Date: 05<sup>th</sup> December 2016 Duration: 90 minutes**

**Moderator:** Louisa A. Nara – CCPS Technical Director

**Panel members:**

1. Dr. Salah Suood Al-Eissa: Functional Learning, Learning & Development SABIC
2. Professor Kazuhiko SUZUKI: Division of Industrial Innovation Sciences, Graduate School of Natural Science & Technology, University of Okayama
3. Dr. Luc Vechot: Managing Director, Texas A&M University at Qatar
4. Dr. Kristen Kulinowski, CSB Board Member

### **2015: Malaysia (2<sup>nd</sup> GSPS)**

**(Day 03) Date: 05<sup>th</sup> November 2015, Duration: 60 minutes**

**Moderator:** Dr. Bea Ponnudurai – Senior General Manager, PETRONAS Group HSE

**Proposed Panel members:**

1. Professor Dr. Azmi Mohd Shariff, Head, Centre of Advanced Process Safety, Universiti Teknologi PETRONAS (UTP), Malaysia
2. Professor Il Moon, University of Yonsei, South Korea
3. Louisa A. Nara, Technical Director, CCPS, USA
4. Ms. Atsuko Fumoto, Center for Safe and Disaster-Resistant Society, Okayama University, Japan
5. Masjuli Masjuli, Balikpapan University, Indonesia

## **Seed questions for Academia panel members:**

Every chemical engineering graduate practices process safety. Industry is demanding higher and more consistent-level of process safety knowledge for its new hires. Consequently, process safety should receive more emphasis than it currently does in the curriculum.

- *Please tell how your university deals with this challenge.*
- *Which process safety related topics/subjects are covered in the curriculum?*
- *Is there any accreditation requirement related to process safety education for the programme your university offering?*
- *Do you provide certificates to the students who demonstrate proficiency in areas of process safety?*

Most of the chemical engineering programs already at the maximum number of credits allowed by their university.

- *Where and how to add additional content related to Process safety that may not be readily available?*

### **Approaches to offer process safety education**

Process safety in an industrial facility is an important part of everyday activity. This best way is to integrate process safety throughout the entire chemical engineering curriculum. Much of the contents can be added to existing Heat transfer, Mass transfer, Thermodynamics, Chemical reaction engineering, Design and unit operations classes and to the laboratories.

Another approach is through dedicated safety course.

- *Which approach you have adopted?*
- *How do you ensure that process safety programme/topics that your university is offering are in line with expectations of industries?*

### **Faculty competency**

Ideally, full time faculty with some knowledge of industrial process safety practice and/or industrial experience should teach process safety courses.

- *How do you ensure faculty competency to teach process safety topics?*

**Other topics that the panelists would like to add.**