



Jeet Bindra Distinguished Lecture Series

Artificial Intelligence or Intelligence Augmentation for Safer Processes?



Date
09 October 2026
(Friday)



High Tea
03:30 PM



Seminar
04:00 PM



Venue
Rajiv Motwani
Building (RM-101)

Speaker

Prof. Faisal Khan

Mike O'Connor II Chair Professor and Head of
Artie McFerrin Department of Chemical Engineering
Texas A&M University, USA

Abstract

Digital automated processing systems use shared operations and control systems with two intelligent decision-makers: humans and automated machines (artificial intelligence, AI). Besides the well-known challenges of AI systems (data quality and quantity, and reliability), another serious, less known and understood challenge emerges at this early stage of AI applications. It is AI-human conflicts. Contradictory observations, states, goals, and actions may cause conflict between decision-makers [humans and AI]. The definitions, cause(s), and path(s) of such a conflict from the safety perspective have not been explored and assessed. This presentation introduces an evolutionary framework showing how conflict between Human Intelligence and Artificial Intelligence can lead to accidents. It presents a compelling argument for a Safety-centered design, which is crucial for preventing accidents stemming from disputes in AI-driven digitalized processing systems.

About the Distinguished Speaker

Prof. Faisal Khan is an internationally recognized leader in process safety and risk engineering. He serves as the Mike O'Connor II Chair Professor and Head of the Arie McFerrin Department of Chemical Engineering at Texas A&M University. He also serves as Director of the Mary Kay O'Connor Process Safety Center and the Department of Energy (DoE) and Department of the Interior (DoI) funded Ocean Energy Safety Institute (OESI).

Previously, he held the prestigious Canada Research Chair (Tier 1) at Memorial University of Newfoundland. Prof. Khan advises multinational corporations and governments worldwide on safety, security, and risk management. His extensive academic contributions include over 700 research articles; this work has earned him many national and international awards, including the ASME Risk Analysis Award, the CSChE PSN Award, the IChemE Award, the SPE HSE Award, the AIChE Award, and the Kletz Award. He has mentored over 200 graduate students, including 101 PhD theses. He serves as Editor-in-Chief for the Journal of Process Safety & Environmental Protection (Elsevier).

About Mr. Jagjeet Singh Bindra and the Jeet Bindra Distinguished Lecture Series



Mr. Jagjeet Singh Bindra did his B.Tech in Chemical Engineering from IIT Kanpur in 1969. He earned his master's degree in Chemical Engineering from the University of Washington in 1970 and an M.B.A. (Honors) from St. Mary's College in Moraga, California. He is a 'Distinguished Alumnus' of the University of Washington, College of Engineering, as well as of IIT Kanpur, and was awarded the Institute Fellow of IIT Kanpur in 2021.

Mr. Bindra is on the board of LyondellBasell Industries NV and HPCL-Mittal Energy Ltd. He is also the director of Edison International and Southern California Edison. Before joining Edison, he served as president of Chevron Global Manufacturing from 2004 – 2009, where he led the company's worldwide manufacturing operations, including those of 19 refineries.

Mr. Bindra is among the top donors. Some of his past initiatives at IIT Kanpur include:

- Mr. & Mrs. Gian Singh Bindra Chair.
- Chevron Corporation Chair.
- Foundation for Chemical Eng. Department towards departmental excellence.
- Centre of Excellence (CoE) in Specialty Chemicals.
- Janice and Jagjeet Bindra Chemical Engineering Building.
- AI for Engineering Science.
- Centre for Development of Soft Skills.
- Department of Chemical Engineering Modernization of the Uni Operations Laboratory (UOL), and the Workshop Facility.
- Graduate student lounge at the Department of chemical engineering.



All are welcome.