

Process Hazard Analysis for Chemical Industries

December 29-30, 2021



Centre for Safety Engineering & Common Research and Technology Development Hub

Indian Institute of Technology Gandhinagar

<http://safety.iitgn.ac.in> ; <http://crtgdh.iitgn.ac.in>

Centre for Safety Engineering (CSE) along with Common Research & Technology Development Hub (CRTDH) at IIT Gandhinagar takes immense pleasure to announce a two-day workshop on the “*Process Hazard Analysis for Chemical Industries (PHA)*” for plant practitioners, engineers, regulators and policy makers of Chemical industries. Experienced safety professionals from industry and faculty from IIT Gandhinagar will conduct the workshop. A PHA analyses is used for addressing the potential causes and consequences of fires, explosions, releases of toxic or flammable chemicals, and major spills. The major focus is on equipment, instrumentation, utilities, human actions (routine and non-routine), and external factors that might affect the process. The two-day workshop on Process Hazard Analysis (PHA) would provide understanding on the hazard analysis and risk assessment with its application to processing industries. The topics that will be broadly covered are hazards, risks and risk probability and reliability. As part of this workshop, PHA tools such as HAZOP and Risk Analysis etc. would be discussed with practical case studies and group exercises etc. The ultimate aim of this workshop is to train the participants on various risk reduction strategies to enhance process safety in chemical process industries. It will help professionals to understand the challenges and best methods for safer and healthy workplace by addressing the process hazard analysis. Upon completion of this workshop, participants will be able to,

- Describe principles of hazard identification and risk assessment.
- Apply appropriate techniques for hazard identification and risk analysis.
- Identify risk reduction strategies to prevent consequences on Personnel health, Environmental safety

Tentative Program

Day 1	
Timing	Topic
09:00 - 09:30	Registration
09:30 - 11:00	Session 1: Introduction to Hazard identification and Hazop
11:30 - 13:00	Session 2: Hazop in detail
13:00 - 14:00	Lunch
14:00 - 15:30	Session 3: Group exercise (simple case)
15:30 - 16:00	Tea Break
16:00 - 17:30	Session 4: Group presentations and review of exercises
Day 2	
09:30 - 11:00	Session 1: Risk ranking, Report preparation and closeout report
11:00 - 11:30	Tea Break
11:30 - 13:00	Session 2: Group exercise II
13:00 - 14:00	Lunch
14:00 - 15:30	Session 3: Group exercise II (contd.)
15:30 - 16:00	Tea Break
16:00 - 17:00	Session 4: Wrap-up

Speakers

Sri. G Vishwanathan is former Deputy General Manager, Indian Petrochemicals Corporation Limited, (now RIL), Vadodara.

Mr. Vishwanathan is graduate Chemical Engineer with postgraduate diploma in management from All India Management Association, New Delhi. He is a Certified Functional Safety Engineer and a trained PHA Leader from TUV. Mr. Vishwanathan has more than five decades of varied experience in the areas of operation and technical services in petrochemical plants, in process engineering with leading EPC companies and now a freelance consultant on Risk & Safety studies such as HAZID, ENVID, OHID, HAZOP, SIL, FMEA, FTA, ETA, Bow Tie and RAM study of hydrocarbon plants in India and abroad. He has conducted similar workshop earlier in IITGN.



Dr. Chinmay Ghoroi is B.S. Gelot Chair Professor of Chemical Engineering, Coordinator of Centre for Safety Engineering and PI for CRTDH at IIT Gandhinagar. He played a crucial role in setting up both the CRTDH & CSE @ IITGN and conducted several International Conferences, Workshops /Symposiums on Safety. Dr. Ghoroi also served as the Guest Editor of the Journal of Loss Prevention in the Process Industries (Elsevier) and presently Associate Editor of Particulate Science & Technology. He was Visiting Scholar at Mary Kay O'Connor Process Safety Center, Texas A&M University and Otto H. York Department of Chemical and Materials Engineering in New Jersey Institute of Technology, USA. Dr. Ghoroi also has about 5 years of fruitful stint in the industry. He is a Senior Member of American Institute of Chemical Engineers.



Venue

Academic Block, IIT Gandhinagar, Palaj, Gandhinagar

Registration

The workshop fee per participant is Rs. 5,000/- + 18% GST (Rs. 5,900/-), can be paid only through online transfer (Account details are provided in the Registration Form). The filled form is to be submitted through email. **To maintain the COVID protocol, participant number is restricted to first 30 registration only. Participant has to follow institute's COVID protocol during their visit to IIT campus.**

Registration Fees (Covers attendance to all sessions, Lunch and Tea only).

Certificate

Centre for Safety Engineering, IIT Gandhinagar will issue a Certificate of Participation upon successful completion of the workshop.

For additional information about the workshop, registration etc., please contact [Prof. Chinmay Ghoroi \(safety@iitgn.ac.in\)](mailto:safety@iitgn.ac.in), Phone: +9179-23952405