

# INTERNATIONAL WORKSHOPS



GLOBAL INITIATIVE OF ACADEMIC NETWORKS



*Organized By*

**PANJAB UNIVERSITY**

*Under the aegis of*





**Panjab University**  
Chandigarh

## Global Initiative of Academic Network

**GIAN**

# GLOBAL INITIATIVE OF ACADEMIC NETWORKS

PU GIAN  
Workshop  
No. 4



MINISTRY OF  
HUMAN RESOURCE DEVELOPMENT, GOVT. OF INDIA



National Coordinating Institute  
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR

[www.gian.iitkgp.ac.in](http://www.gian.iitkgp.ac.in)

## INTERNATIONAL WORKSHOP

on  
“Process Safety  
and  
Risk Engineering”



An event under  
**GIAN**  
Global Initiative of Academic Networks



November 14-19, 2016



Organized by  
**Panjab University, Chandigarh**  
under the aegis of





**Panjab University**  
**Chandigarh**

**Global Initiative of Academic Networks**

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## Overview of Workshop

**Total number of participants: 30**

<b>Sr. No.</b>	<b>Name of the Institute</b>	<b>Number of participants</b>
1	Panjab University	25
2	SLIET, Longowal	1
3	DCRUST, Murthal	1
4	Trident Industries Limited, Barnala	1
5	RNCET, Panipat	2

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**Day-1-5 Overview of Workshop**

**Global Initiative of Academic Network**

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**Memorial**  
University of Newfoundland

### **Guest Faculty**

**Prof. Faisal Irshad Khan**  
Professor, Process Engineering  
Faculty of Engineering and Applied  
Science, Memorial University of  
Newfoundland, Canada



### **Course Coordinator**

**Mr. Surinder Singh Bhinder**  
Dr. SSBUI CET,  
Panjab University  
Chandigarh





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## *Day-1: Inauguration* **Global Initiative of Academic Network**

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**Day-1-5 Overview of Workshop**  
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## PROCESS SAFETY AND RISK ENGINEERING



**Prof. Faisal Irshad Khan**  
Professor, Process Engineering  
Faculty of Engineering and  
Applied Science, Memorial  
University of Newfoundland,  
Canada

## Course details

### **Module A: Fundamental of Process Safety and Risk**

**Lecture 1:** Process Accident History : Past process accidents and lessons learned

**Lecture 2:** Process Accident Occurrence Understanding

**Tutorial 1:** Participant will do a simple example by assessing potential of process accident and their likelihood.



**Lecture 3:** Process Accident Modeling and Prevention

**Tutorial 2:** Participant will do a simple case study of process accident modeling

**Lecture 4:** Fundamental of Process Safety and Risk

**Tutorial 3:** Participant will do a simple example or safety assessment, risk calculation and interpretation

### **Module B: Process Safety Design & Safety Assessment**

**Lecture 5:** Process Safety Assessment: Probabilistic risk modeling

**Tutorial 4:** Numerical examples with past occurrence

**Lecture 6:** Process Safety Design: Risk Minimization

**Tutorial 5:** Practical Examples of risk minimisation will be discussed.

**Lecture 7:** Risk-based Safety Measure Design

**Tutorial 6:** Application of SCAP will be discussed

**Lecture 8:** Safety Performance Assessment

**Tutorial 7:** A case study illustrating risk-based process safety indicator in an LNG facility will be presented.



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## Day-1-5 Overview of Workshop Global Initiative of Academic Networks

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## *Day-5: Valedictory Function* **Global Initiative of Academic Network**

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## *Day-5: A Group Photograph*

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