

# Competency Development on Sizing of Emergency Relief System

21<sup>st</sup> to 23<sup>rd</sup> June, 2023

Mumbai



*A program brought to you jointly by  
Kaypear Consulting and GVS Cibatech*

  
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## Course Title: Competency Development on Sizing of Emergency Relief System

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- Sizing of Emergency Relief Vent is extremely demanding. Vent sizing uses methods generated from the DIERS (Design Institute of Emergency Relief Systems) project. In addition, there are a number of industry codes, standards and recommended practices that provide guidance in the sizing, selection, and installation of relief devices and systems.
- The 3 day fundamental Emergency Relief System training program will focus on the standards, terminology, theory, and workshop problems that will enable them to perform and review relief system calculations. Non-reactive and single-phase flow workshop problems as well as reactive hazard screening techniques, kinetic theory of reaction, understanding TMR and much more is a part of the curriculum. Below is the detailed program itinerary:
  - **Impetus for having a Pressure Safety Design Review Program**
    - Overpressure accidents
    - Audit findings / ERS design deficiencies
  - **Relief System Design Requirements**
    - Workflow for performing relief system design
    - How to facilitate the review and perform overpressure analysis
    - Review & approval of ERS package
    - Properly documented ERS design packages
    - Understanding Codes of Construction
  - **Relief device working**
    - PSV – Conventional & Bellows
    - PSV-Trim type
    - Pilot Operated Valve
    - Non-reclosing device (Rupture Disk & Buckling Pin)
    - Weighted Pallet Device / Conservation Vents
  - **Sizing for non-reactive cases**
    - Simple Design Cases
    - Instrument failure
    - Thermal Expansion
    - Pump Overpressure
    - In-breathing / Out-breathing
    - Other contingencies
    - External Fire
  - **Workshop: Sizing and Selection of Relief Device**
  - **Reactivity module**
    - Reactivity screening
    - Adiabatic calorimetry testing
    - Introduction to analytical methods
  - **Vapor Liquid Disengagement using Fisher Forrest Model**
  - **Relief Device Installation**

## Speakers



The lead tutor for this program is **Mr. Rahul Raman**. He is a Process Safety practitioner specializing in design of Emergency Relief Vent systems for over 14 years. Rahul is the instructor for the AIChE DiERS course and performs reactive hazard analysis, design and engineering, and reactive vent sizing using kinetic and analytical methods. Mr. Raman holds a Master in Chemical Engineering from Carnegie-Mellon University and a Bachelor of Technology Chemical Engineering,



The second tutor for the program will be **Mr. Vijay Bhujle**. He is a Masters in Chemical Engineering from U.I.C.T with over 40 years' experience in the chemical processing industry. Mr. Bhujle's focus in the training will be on Process Testing.

Mr. Bhujle has held numerous positions of responsibility involving equipment & process design, technology transfer and scale up in Pharmaceutical, Agrochemicals and Specialty Chemicals Industry. He has led number of HAZOPs, Risk Assessments and others. He holds several process patents and publications to his credit. He is an excellent speaker and a passionate safety practitioner. Mr. Bhujle is also the founder and Sr.V.P. – Technical of GVS Cibatech and a visiting faculty at I.C.T., Mumbai.

**Date:**

21st to 23rd June, 2023

**Fees:**

Rs 50,000 + 18% GST per head

**Payments:**

Payments may be made online to our Bank Account as detailed below:

**Bank Name:** ICICI Bank

**Branch:** Bhandup (W)

**A/C No:** 098405001381

**IFSC Code:** ICIC0000984

Alternatively Checques may be made out in the name of  
**“GVS Cibatech Pvt Ltd.”**

**Early Bird Discount:**

We offer a

**10% Early Bird discount**

if bookings are made 45 days in advance

**Bulk Discount:**

For 3 or more candidates from the same company we offer a **10% discount**

**Venue:**

**Hotel Orchid**

70 C Nehru Road

Near Domestic Airport

Vile Parle (East)

Mumbai-400 099

## REGISTRATION FORM

Please book me for:

**Competency Development on Sizing of Emergency Relief System on 21st to 23rd June, 2023**

Enclosed herewith Cheque / DD in favour of **‘GVS Cibatech Pvt Ltd.’**

for Rs. \_\_\_\_\_ Dated \_\_\_\_\_ Drawn on \_\_\_\_\_

Name of the Participant(s) Dr./Mr./ Ms.: \_\_\_\_\_

Designation/ Job Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address : \_\_\_\_\_

Pin Code: \_\_\_\_\_ Country : \_\_\_\_\_

Mobile : \_\_\_\_\_ Email : \_\_\_\_\_

Signature: \_\_\_\_\_ Date : \_\_\_\_\_

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