



Vellore 632014

AICTE

**Sponsored Six day Online Short Term Training  
Program- III**

on

**Sustainable Design of Chemical Process Plants by Using  
Aspen Plus and Aspen HYSYS Simulating Tools  
21<sup>st</sup> to 26<sup>th</sup> September, 2020**

**Registration Form**

Name:-----  
Designation:-----  
Organization:-----  
Mailing address:-----  
-----  
-----  
-----  
Mobile Number-----  
Email (Compulsory):-----  
Participation category:-----  
(Faculty/Industry/R&D/research scholar)  
Educational qualification:-----  
Experience (in years): Teaching-----  
Research:-----Industry:-----

Date: (Signature of Applicant)

Recommendation from Head of the Institution

Dr/Mr/Ms.....  
.....is an employee of our  
institute/Organization and is hereby allowed to participate in the  
AICTE sponsored STTP on “Sustainable design of Chemical  
Process Plants by using Aspen Plus and Aspen HYSYS simulating  
tools” during 21<sup>st</sup> to 26<sup>th</sup> September, 2020 at Vellore Institute of  
Technology, Vellore, Tamil Nadu.

Signature of Head of Institution  
(Seal)

**Organising Committee**

**Chief Patron**

**Dr.G. Viswanathan**  
Chancellor

**Patrons**

**Mr. Sankar Viswanathan,**  
Vice-President

**Dr. Sekar Viswanathan,**  
Vice President

**Mr G.V.Selvam,**  
Vice President

**Ms. Kadhambari S. Viswanathan,**  
Asst. Vice President

**Dr. Sandhya Pentareddy,**  
Executive Director

**Dr. Anand A Samuel,**  
Vice-Chancellor

**Dr. S. Narayanan,**  
Pro-Vice Chancellor.

**Dr. K.Sathiyarayanan,**  
Registrar

**Convener**

**Dr. G.P. Ganapathy**  
Professor & Director  
Centre for Disaster Mitigation and Management

**Coordinator**

**Dr. K. Nagamalleswara Rao**  
Associate Professor  
Centre for Disaster Mitigation and Management

**Contact Details:**

**Dr. K. Nagamalleswara Rao**  
Associate Professor  
Centre for Disaster Mitigation & Management  
Vellore Institute of Technology (VIT)  
Vellore – 632 014  
Tamil Nadu, India.  
Phone: +91-7540071633 (Mobile)  
Email: nagamalleswara.rao@vit.ac.in

**AICTE  
Sponsored Six day  
Online Short Term Training  
Program-III  
On**

**Sustainable Design of Chemical  
Process Plants by Using Aspen Plus  
and Aspen HYSYS Simulating Tools**

**21<sup>st</sup> to 26<sup>th</sup> September, 2020**



*Organized by*

**Centre for Disaster Mitigation and  
Management (CDMM)**



**VIT**  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)  
**Vellore - 632014**

## About VIT

VIT was founded in 1984 as Vellore Engineering College by the Chancellor Dr. G. Viswanathan. From its humble beginning, the institution has grown exponentially to that of having more than 33,000 students. Students from all the states of India and from more than 50 countries are studying at VIT. VIT status was conferred in 2001 by MHRD Govt. of India in recognition of its excellence in academics, research and extracurricular initiatives. Currently, VIT has 4 campuses – in Vellore, Chennai, Amaravati (AP) and Bhopal (MP). The National Institutional Ranking Framework (NIRF) of the MHRD, Government of India, has identified VIT as the best Private Engineering Institution in India in the year 2016, 2017, 2018 and 2019. VIT has been awarded as No.1 Private Institution for Innovation (ARIIA 2019 Award) by Govt. of India. VIT has gone for accreditation by NAAC [India], IET [UK], and ABET [USA] and follows world class academic processes.

VIT is the first and only Institution in India to get 4 star rating from QS, the world universities ranking organization. The Industry consortium FICCI, has declared VIT as the “University of the Year 2016”, in India. VIT has also been ranked in the top 201-250 in QS BRICS Ranking in 2016 and in the top 251-300 in Times Higher Education (THE), Asia Ranking. Govt. of India recognizes VIT as an Institute of Eminence (IoE) in 2019 to become the world’s best.

## About CDMM

The Centre of Disaster Mitigation and Management (CDMM; www.vit.ac.in/cdmm/) is one of most modern, well equipped and progressive Centres in India with passion for excellence. CDMM addresses some of the most neglected areas of the highest national importance. Innovation in Disaster education, rendering of highly specialized disaster mitigation services and Disaster Knowledge Network tagged with the great learning exercise are the three areas of its current operation. The Centre has forged partnerships with many knowledge based institutions and professional bodies including National Institute of Disaster Management, Government of India, Institution of Engineers (India), Structural Engineering Research Centre, Chennai, Advanced Technology Engineering Services, New Delhi, Central Building Research Institute, Roorkee and Central Road Research Institute, New Delhi. The Centre has the best known experts in the area of Natural Disasters, on its Advisory Board.

The Centre aims to achieve excellence in the key areas of research on par with international standards and regional issues and concerns, especially in Earthquake Disaster Mitigation and Management, Early Warning Systems, Mitigation Efforts, Disaster Preparedness across India and chemical disasters.

The centre has faculty with domain expertise in Earthquakes, Landslides, Floods, Droughts, Construction and Structural Engineering, Geomatics Technology (Remote Sensing, GIS, GPS, Surveying, Digital Photogrammetry etc.), Multi-media Technology and Chemical disasters safety (using Aspen Plus and Aspen HYSYS). Research and consultancy projects are carried out through sponsored funding from Government of India’s Ministry and Departments and International Donors like UNDP-India, Prevention Consortium / Asian Disaster Preparedness Centre (ADPS), etc.

## About the Training program

Industrial safety is important as it safeguards human life, especially in high risk areas such as nuclear, aircraft, chemical, oil and gases, and mining industries, where a fatal mistake can be catastrophic. Industrial Safety awareness reduces risks to people, and processes. Process control and safety systems are usually merged. Maintaining a safe and healthy working environment is not only an important human resources issue, it’s the law. Whether they are entry-level workers, seasoned veterans, supervisors, or plant managers, the employees need to understand health and safety risks, the steps they need to take to minimize those risks, and common safety standards and compliance procedures.

Process Safety Concepts discussed in this training specially designed to help people tasked with safety responsibilities gain the engineering and management expertise needed to operate/design a plant safely. Through this training we will train/educate the participants to be able to recognize process hazards in operating plants and field operations; understand the effects and impact of hazardous chemicals on people, equipment and environment; learn about common safeguards used to prevent loss-of-containment incidents; discover ways to control and mitigate the severity of hazards. Hands-on sessions planned in this training are helpful for techno-economic measures, decision making, design and evaluations in industries with safety and also to avoid catastrophic failures and disasters.

## Target Groups

Engineers from Industries, Faculty, Scientists from R&D organizations and Research Scholars.

**Venue** - Centre for Disaster Mitigation and Management, VIT, Vellore 632014.

## Major Topics to be covered

Sustainable design of chemical process plants using Aspen Plus and Aspen HYSYS

- Storage tank safety, Design of Pressure Vacuum Relief Valve (PVRV) and Emergency Relief Valve (ERV) using Aspen HYSYS
- Insight to Process Safety Diagrams/P&IDs
- Disaster Mitigation in Industries by complying Work Permit Systems, Confined Space work procedures
- Industrial accidents/Equipment failures Protection by Relief and Blowdown Systems (As per API 520 and API 521)
- Firefighting System Design For Process Plants
- Insight to Flare network, Hands on FLARENET Software
- Industrial Safety Practices at work place
- Industrial Disaster Mitigations by Plant Safety Studies (HAZOP/PHA/LOPA/SIL)
- Insight to Sulfur Recovery Units Simulations in HYSYS
- Waste Disposal Systems, Effluent and Waste Water Treatment Systems
- Removal of H<sub>2</sub>S and CO<sub>2</sub> from hydrocarbon Gases in HYSYS
- Insight to Hazardous Area Classification for Process Plants, Tank Farms

## Resource Persons

Hands-on sessions will be handled by experts from premier academic Institutions and Industries.

## Who can attend?

The workshop is open to the Faculty of AICTE approved technical institutions, Research Scholars, Persons working in R&D organizations and Chemical & Allied Industries. Number of participants is limited to **Fifty only**.

## Registration and Fee particulars:

There is no Registration fee for this training program. Registration for participating in the STTP may be done by sending the application in the prescribed format duly signed by the Head of the Institution. (The participant can send the scanned copy of the filled in registration form duly signed by the head of the institute to the coordinator email ID).

## Important dates:

For submission of application : **18-09-2020**  
Intimation of selected candidates : **19-09-2020**  
Program dates : **21<sup>st</sup> to 26<sup>th</sup> September, 2020**