

Report on Short Term Training Programme (STTP) on **Process & Equipment Design using CHEMCAD**

The Department of Chemical Engineering Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi in association with Innovent Process Solutions Private. Limited, Pune and IChE Amaravati Regional Centre, Guntur conducted a 5-day Short Term Training Programme on "Process & Equipment Design using CHEMCAD" during 2nd June to 6th June 2025.

The Chief Guest Professor A. Sarath Babu, National Institute of Technology, Warangal inaugurated the event. In his inaugural message Professor A. Sarath Babu welcomed all the participants both on-line and off-line who are attending for the STTP. He congratulated both VFSTR and IChE Amaravati Regional Centre for organizing the STTP on the latest topic **Process & Equipment Design using CHEMCAD**. Mr. Gautam Pradhan and Dr. Asish Nag also addressed the participants on the occasion as Guests of Honour. Prof. Ramesh Naidu Mandapati Dean, Student Affairs and Coordinator for the STTP presided over the inaugural session and conducted the Proceedings.

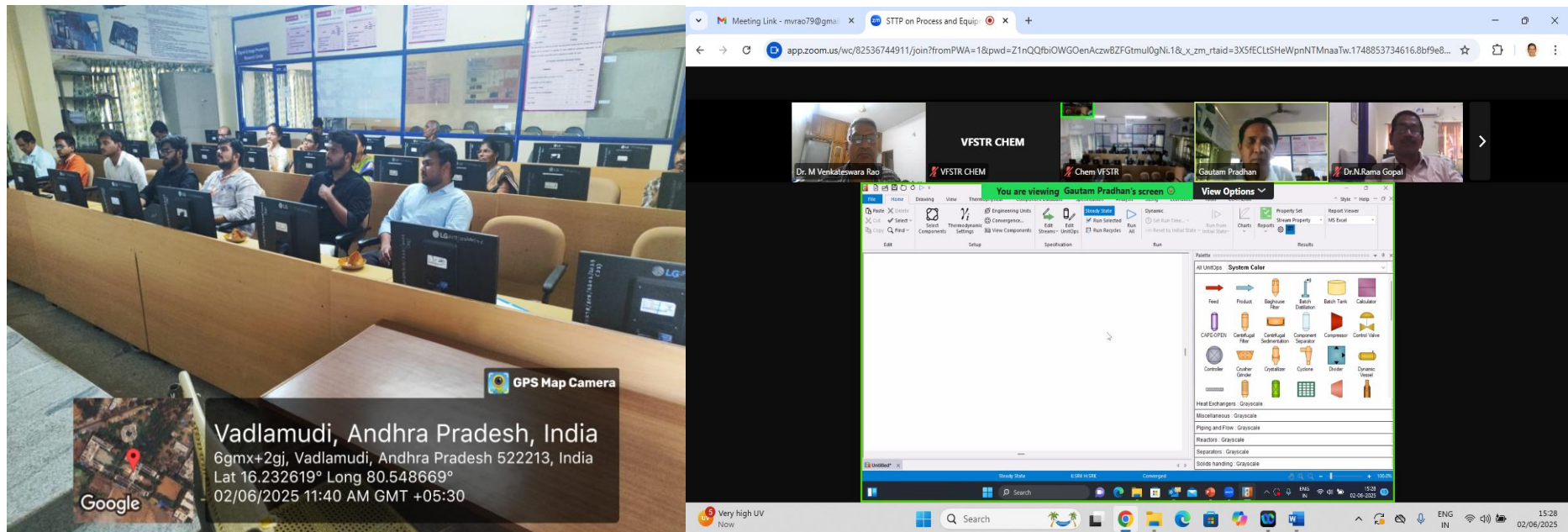


Resource persons:

1. Dr. A. Sarath Babu Professor, National Institute of Technology, Warangal, member IChE ARC
2. Mr. Gautam Pradhan-Director-Innovent Process Solutions Pvt Ltd, Pune
3. Dr. Asish Nag-Ex Design Director –IOCL
4. Dr. N. Ramagopal, Professor, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi. member IChE ARC

The Participants: 9 from Industry, 18 from academia (including research scholars) registered and participated in the program in addition to the on-line participants.

Prof. M. Venkateswara Rao, former Professor & Dean Examinations, RVR & JC College of Engineering and Honorary Secretary, IICHe Amaravati Regional Centre participated in the event online.



The following are the details of resource persons, topics and outcomes.

Date	Resource Person	Topic	Outcome
02.06.2025	11.00 am to 12.00 noon Dr. A. Sarath Babu Professor, National Institute of Technology (NIT), Warangal	Lecture: Introduction to flow sheeting approaches	Participants understood modeling phenomenon of components of flow sheeting.
	12.00 noon to 01.00 pm	Interactive Session: Introduction to flow sheeting approaches	Participants understood scientific approach of feeding data to CHEMCAD
03.06.2025	11.00 am to 01.00 pm Dr. A. Sarath Babu Professor, National Institute of Technology (NIT), Warangal	Lecture: Partitioning & Tearing of flow sheeting	The participants understood how process flowsheets are analyzed by CHEMCAD in terms of portioning and tearing.
	02.00 pm to 05.00 pm Dr. A. Sarath Babu Professor, National Institute of Technology (NIT), Warangal Mr. Gautam Pradhan Director – Innovent Process Solutions Pvt Ltd, Pune	Interactive session & Quiz on Partitioning & Tearing of flow sheeting Hands on session on introduction to GUI of CHEMCAD	The participants understood algorithms of partitioning and tearing. The faculty participants got insights of how CHEMCAD can be exploited as a tool to import various core courses basics/fundamentals
04.06.2025	11.00 am to 01.00 pm Mr. Gautam Pradhan Director – Innovent Process Solutions Pvt Ltd, Pune	Lecture cum Demonstration of Process Simulations Using CHEMCAD - Part I	The participants understood/ learnt how to simulation various separators and reactors using CHEMCAD
	02.00 pm – 05.00 pm Mr. Gautam Pradhan Director – Innovent Process Solutions Pvt Ltd, Pune	Lecture cum Demonstration of Process Simulations Using CHEMCAD - Part II	

05.06.2025	<p>11.00 am to 01.00 pm Mr. Gautam Pradhan Director – Innovent Process Solutions Pvt Ltd, Pune</p>	<p>Lecture cum Demonstration of Piping network analysis Using CHEMCAD - Part I</p>	<p>The participants understood what is a piping network in Process Industry</p> <p>The participants learnt how to build piping network of their interest Using CHEMCAD</p>
	<p>02.00 pm to 03.00 pm Mr. Gautam Pradhan Director, Innovent Process Solutions Pvt Ltd, Pune</p> <p>03.00 pm to 05.00 pm Dr. N. Rama Gopal, Professor Vignan’s Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi</p>	<p>Lecture cum Demonstration of Piping network analysis Using CHEMCAD - Part II</p> <p>Hands on session on Simulation of VCM manufacturing process using CHEMCAD.</p>	<p>The participants learnt to simulate piping network of their interest Using CHEMCAD</p> <p>The participants learnt how to cross check piping network simulations results</p> <p>The participants learnt how to build a process flowsheet and converge it.</p> <p>The academia got insights of how CHEMCAD is an indispensable tool of IDPs, Projects works, design consultancy and so on.</p>
06.06.2025	<p>10.00 am to 01.00 pm Dr. Asish Nag-Ex Design Director –IOCL</p>	<p>Lecture on Refinery operations-I</p>	<p>Participants got idea of various practical aspects of refinery operations which can be resolved by using CHEMCAD</p>
	<p>02.00 pm to 04.00 pm Dr. Asish Nag, Ex-Design Director, IOCL</p> <p>04.00 pm to 05.00 pm Dr. N. Rama Gopal, Professor Vignan’s Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi</p>	<p>Lecture on Refinery operations-II</p> <p>Hands on session on Simulation of VCM manufacturing process using CHEMCAD - Contd....</p>	

Conclusions:

- The program motivated the participants to participate in future STTP's and/or FDP's on how CHEMCAD software can be effectively exploited to enhance the depth of B. Tech curriculum and also to go beyond.
- CHECAD user manual hard copies are prepared and distributed to all participants.