



***A REPORT ON***  
***Webinar on “Aspen Modelling & Simulation in Chemical and Petroleum Industries”***  
***Dated 08<sup>TH</sup> Jan 2024***  
***by***  
***Department of Chemical Engineering, School of Studies (Engineering & Technology)***  
***Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G)***

Date: - 08.01.2024	Timing-2 pm to 3 pm	
Venue: -Online Session (Through Webex)	Department of Chemical Engineering, School of Studies Engineering and Technology	For: - All the members of IEI Student Chapter and Respected Faculty of Chemical Engineering Department
Faculty coordinator and convener: -Faculty Advisor and Co Ordinator Dr Sandeep Dharmadhikari. Convener: - Komal Mishra		
Coordinator: Aryan Yadav, Karan Singh Uikey, Lokendra Singh Chandel, Shashwat Tiwari, Swapnil Tiwari.		

**Objective**

The objective of One Day Webinar on **Aspen Modelling & Simulation in Chemical and Petroleum Industries** to learn advanced topic such as Process Control and Knowledge about Petroleum Industries.

### **Event Description:**

The Department of Chemical Engineering, School of Studies of Engineering and Technology has successfully conducted a Webinar On “Aspen Modelling & Simulation in Chemical and Petroleum Industries” dated 08<sup>th</sup> Jan 2024 from 2 pm to 3 pm all the segment of the event was carefully planned, coordinated, and presented under the guidance of our faculty advisor and coordinator Dr. Sandeep Dharmadhikari. Our IEI Convenor Komal Mishra gave a kick start to this webinar full of knowledge by an introductory speech addressing all the respected delegates present during the meet. All the members including the faculty coordinator sir were privileged with the presence of our Honourable HOD Sir, Dr. Raghavendra Singh Thakur, who started the event by sharing his thoughts and ideas regarding this event and sharing his valuable points along with his prolonged experience in this field. The talk was very fruitful for all the students of First Year, second year and Third-year students including students of the final year who are dedicatedly focused towards their career. The session continued further under the guidance of our well-known Guest Dr. Rakesh Kumar currently Associate professor at Department of Chemical Engineering Rajiv Gandhi Institute of Petroleum Technology. Rakesh Sir Explained: - The Role of Chemical Engineering in Industries as follows: -

- Chemical Engineer deals with the production of chemicals & useful products.
- Designing Various type of equipment like Heat Exchangers, Columns, Transport System etc...
- The Role of Plant is to Maximize the profit in less cost and the productivity should be high.
- Chemical Engineer utilises their knowledge such as Reaction Engineering, Heat Transfer, Mass Transfer etc... in the industries for the proper functioning of Reaction and various other parameters.

- Apart from these Rakesh Sir also explained about the safety-first principle in the industry.
- Rakesh Sir also explained the difference between Chemistry & Chemical Engineering i.e., Chemistry gives the feasibility of reaction whereas Chemical Engineering deals with the production of large quantity of Chemicals such as Fertiliser, Petroleum, Soap etc...
- Dr. Rakesh Sir working on the capture of CO<sub>2</sub> using Noble Solvent such like ionic liquid which is composed of small liquid ions. Ionic Solvent has wide variety of application such as electrolyte, solvent etc...
- Sir also talked about achieving the net zero emission of CO<sub>2</sub> by 2070 which is the initiative taken by the government.

He also gave brief description on working of plant starting from the raw material to the production of their individuals in the industry as per the requirement, and answered all the questions of the students regarding their Doubts in better way which helps to give a clear concept of Aspen Software. Rakesh sir also guided the students in the field of academics and reminded them of the importance of Aspen and reduction of CO<sub>2</sub> emission and the subject they are studying, with this the informative session came to an ending part followed by Vote of Thanks given by Aryan Yadav followed by pledge of Allegiance delivered to every individual present at the meeting by the Coordinator of IEI student chapter.

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Meeting Info (Moderated unmute mode)  
Speaking: Dr. Rakesh Kumar reen 100% +

Participants (30)

Dheeraj Yadav  
Head Chemical Host  
Janhavi Patel  
dhanjit

ST SWAPNIL TIWARI Me  
HC Head Chemical Host  
DK Dr. Rakesh Kumar  
AK abhinav kumar  
AJ ADITYA KUMAR...  
AC Amit Chaudhary  
AY aryan yadav  
AA Astha Agrawal  
BM Bhavna Mishra  
D dhanjit

ELECNRTL\_Rate\_Based\_MEA\_ModelShip - Aspen Plus V12 - aspenONE

Simulation: Capital USD Utilities USD/Year Energy Savings MW Exchanges Unknown 0 OK 0 Risk 0

STRIPPER Rate-Based Modeling - User Transport Submodels - STRIPPER Column Internals OPT-E1 Sections - Control Panel - GASOUT (MATERIAL) - Main Focustest

Sequence Messages

\*\*\* Warning(s) were issued during Input Translation \*\*\*  
\*\*\* Check the Run Status Results for more information \*\*\*

\*\*\* Summary of Simulation Errors \*\*\*

Terminal Errors	Physical Property	System	Simulation
0	0	0	0
0	0	0	0
0	0	0	2

Generating results ...

Model Palette: Mixers/Splitters Separators Exchanges Columns Reactors Pressure Changes Manipulations Solids Solids Separators User Models Batch Mode

MATERIAL Mixer Splitter

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Participants (31)

Dheeraj Yadav  
Head Chemical Host  
Janhavi Patel  
jayprakash

KS karan singh  
MS mahi srivastava  
M Mohit  
MK Muskan Kumari  
N Nishukant  
PS Parag Shrivastava  
P priya  
R Raghavendra  
RK rahul kunar  
R raj

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Layout

Participants (30)

Head Chemical Host  
Janhavi Patel  
Kadamnibini Singh  
jayprakash

R Raghavendra  
RK rahul kunar  
R raj  
RK Raushan Kumar  
SK Sakshi Kumari  
SK Sandeep Kumar  
ST SHASHWAT TI...  
S Soumyashree  
ST Swapnil Tiwari  
S Swati

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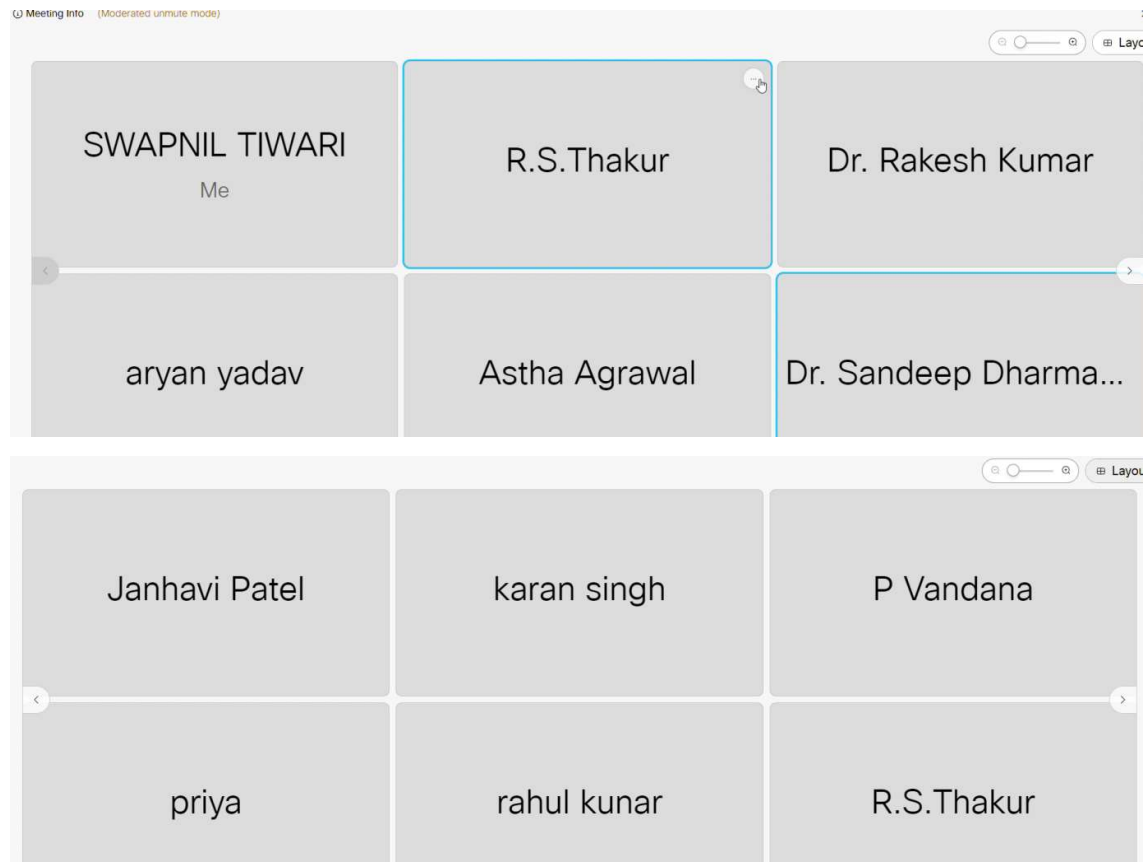
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0	0	0	0
0	0	0	2

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