

CHEMEZINE











Chemical Engineering e-Magazine



Group Photograph: B.E. Batch 2021–25

A Journey of Dreams, Determination, and Unforgettable Moments!



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DEPARTMENT OF CHEMICAL ENGINEERING, SRICT



To achieve excellence in Chemical Engineering and allied fields by providing excellent teaching learning experience enabling students to become competent professionals to tackle global issues.

MISSION

- ❖ To provide excellent technical education to students with basics of chemical engineering.
- ❖ To provide theoretical and practical education so that students vigorously apply knowledge in solving chemical engineering problems for sustained development.
- ❖ To inculcate professional ethics among students by exposing them to state of the art technologies in the field.
- ❖ To inspire students for lifelong learning and to develop leadership qualities in their career.

Program Educational Outcomes (PEOs) of Department

- ❖ To impart the fundamentals of chemical engineering and enable them to have a successful career in wide range of core industries.
- ❖ To deliver quality technical education thereby developing sustainable technology in addressing global issues.
- ❖ To prepare graduates who are capable of solving complex chemical engineering problems.
- ❖ To provide practical aspects of chemical engineering to the students by ways of industrial visits, expert lectures and increased industry-institute interaction thereby making students industry ready.
- ❖ To prepare graduates who can effectively communicate, demonstrate leadership qualities with creative thinking and professional ethics.



Message from Head of Department

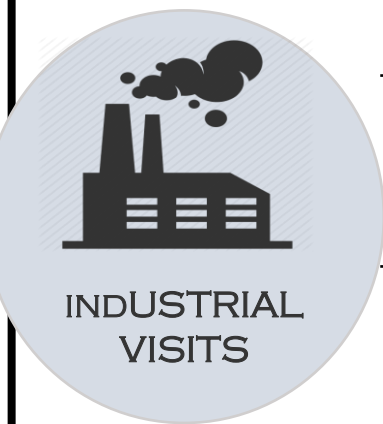
The last semester was full of activities and achievements. We conducted industrial visits, expert lectures and several academic and co-curricular programs. We also organized a refresher course on reaction safety and hazard assessment. Technical sessions were delivered at Insecticides India, Petronet LNG, GNFC and other organizations as part of our strong industry connect.



Our students performed well in university exams and won a prizes at SCHEMCON (National conference). Our IChE student chapter was awarded the Best Student Chapter at Ankleshwar Regional Centre for the second year in a row. We also take pride in the first outgoing batch of BE under our university. Almost 75 B.E. chemical engineering students are already placed with only two pending out of all eligible and interested candidates. We aim to increase student-led projects, industry-driven research and alumni engagement. Beyond academics, our students actively participated in sports, tech fests, and cultural events, showcasing their all-round talent and spirit. Such active involvement reflects the vibrant student life we strive to nurture. Looking ahead, we aim to strengthen student-led projects, promote industry-driven research, and deepen alumni engagement. We also encourage students to participate in national and international conferences and outreach activities to broaden their exposure.

All these accomplishments have been possible due to the visionary leadership and unwavering support of our management. Our strengths remain strong industry interaction, a supportive learning environment and quality teaching-learning. We look forward to more collaborations and meaningful contributions in the coming semester.

- Krunal J. Suthar



Batch	Course	Sem	Industry	Place
2023 -26	Diploma	IV	Narmada Clean Tech	Ankleshwar
			Guru Ashish Pharma	Jhagadia
			Sterlite Organics	Panoli
2022 - 25	Diploma	VI	Well Being Pharma	Jhagadia
			Veer Pharma Chem	Jhagadia
			Qualitron Industries	Panoli



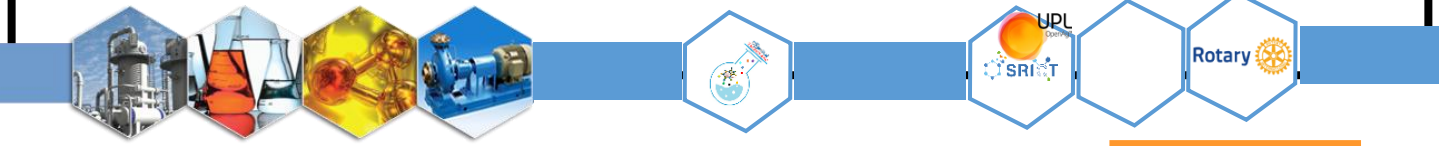
DE-4th sem at Narmada Clean Tech, Ankleshwar

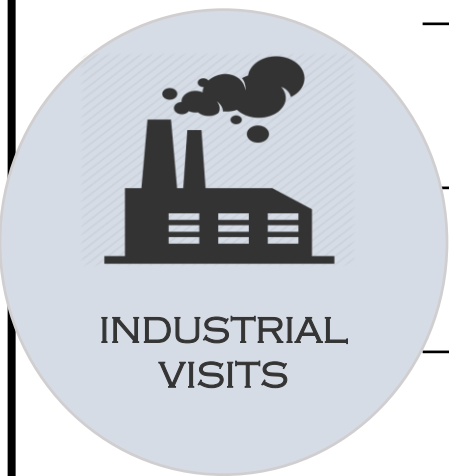


DE-4th Guru Ashish Pharma



DE 6th sem Veer Pharma Chem and Well Being Pharma





Batch	Course	Sem	Industry	Place
2023 – 27	BE	IV	Sunpharma Industries	Panoli
			Eskay Iodine	Jhagadia
			Jayshree Aromatics	Ankleshwar
2022 – 26	BE	VI	Riddhi Pharma	Ankleshwar
			BEIL	Ankleshwar
			Panoli Intermediates	Jhagadia
2021 - 25	BE	VIII	Panama Petrochem	Ankleshwar
			Nuberg Industries	Jhagadia
			Chemcrux	Ankleshwar



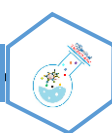
BE-4th Sem- Sunpharma Industries



BE-6th Sem-Riddhi Pharma, Ank.



BE-8th Sem at Panama Petrochem, Ankleshwar





GLIMPSE OF INDUSTRIAL VISITS



BE-8th Sem, Chemcrux Enterprises, Ankleshwar



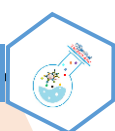
BE-4th Sem, Eskay Iodine, Jhagadia



BE-6th Sem BEIL, Ankleshwar



BE-4th Sem, Jayshree Aromatics





**EXPERT
LECTURES
B.E.**



Sr. No	Semester	Expert Name, designation and organization	Topic
1	B.E. IV	Prasil Jayeshkumar Kapadiya	Linear & non-linear equations in Chemical Engineering
2	B.E. IV	Mr. Snehal Tralsawala	Matrix based problems in Chemical Engineering
4	B.E. VI	Mr. Prasil J Kapadiya	Matrix based problems in Chemical Engineering
5	B.E. VI	Mr. Aditya Sharma	Behavioral Based Safety
7	B.E. VIII	Mr. Prasil J Kapadiya	Solution for Optimization problems
8	B.E. VIII	Mr. Aditya Sharma	Behavioral Based Safety
9	B.E. VIII	Dr. Abhishek Sharma	Pilot scale studies for process development in the field of Waste Management
10	B.E. VIII	Mr. Shankar Karahle	Environmental Social Governance - Application in Chemical Industries

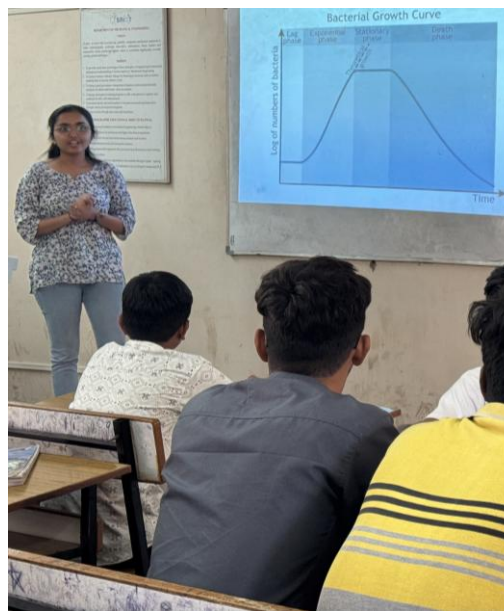




**EXPERT
LECTURES
D.E.**



Sr. No	Semester	Expert Name, designation and organization	Topic
11	D.E. IV	Ms. Sadhvi Devaditi	Yoga and wellness program
12	D.E. IV	Mr. Amit Tripathi	Application of reactions in Chemical Industry
13	D.E. IV	Mr. Aniruddsinh Dodia	Logistics in Hazardous Transport
14	D.E. VI	Ms. Sadhvi Devaditi	Yoga and wellness program
15	D.E. VI	Ms. Prachi Patel	Waste Water Treatment
16	D.E. VI	Dr. Gopal Pishe	Chemical Safety and security in Industries
17	D.E. VI	Mr. Aniruddsinh Dodia	Challenges in Hazardous Goods Transport & Storage



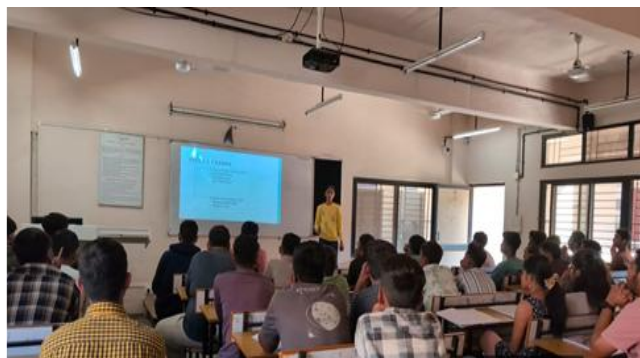


PEER LEARNING INITIATIVE

Under Peer learning initiative (PLI), senior student delivers technical content to peers making it comfortable and easy for students. It also improves communications skills, and professional development.

PEER LEARNING INITIATIVE (Summer-2024)

Name of student	Sem		Course Name
Dighe Pritee Suryakant	BE	SEM-4	Separation Processes
Sakshi Pandey	DE	SEM-6	Pollution Control & Effluent Treatment
Meet Patel	BE	SEM-6	Process Equipment Design
Patel Bhavya	BE	SEM-4	Chemical Reaction Engineering
Keya Prajapati	BE	SEM-6	Process Equipment Design
Dighe Priya	BE	SEM-4	Separation Processes
Priya Dighe	BE	SEM-4	Process Equipment Design
Kundan Salunke	BE	SEM-4	Process Equipment Design
Roopam Debnath	BE	SEM-6	Air Pollution Control
Jeel Kumar Nileshbhai Makwana	BE	SEM-4	Chemical Reaction Engineering
Aakash Kumar Mandal	BE	SEM-6	Chemical Process Industries
Dighe Pritee Suryakant	BE	SEM-4	Polymer Technology
Jeel Kumar Nileshbhai Makwana	BE	SEM-4	Separation Processes
Axraj Sindha	BE	SEM-4	Process Equipment Design
Jay Kayasth	BE	SEM-6	Air Pollution Control
Rohan Surti	BE	SEM-8	Petroleum Refining and Petrochemicals
Patel Bhavya	BE	SEM-4	Polymer Technology





PEER LEARNING INITIATIVE

Name of student	Sem		Course Name
Meet Patel	BE	SEM-6	Chemical Engineering Thermodynamics
Roopam Debnath	BE	SEM-6	Chemical Engineering Mathematics
Aakash Mandal	BE	SEM-6	Air Pollution Control
Roopam Debnath	BE	SEM-6	Process Heat Transfer
Meet Patel	BE	SEM-6	Chemical Process Industries
Keya Prajapati	BE	SEM-6	Air Pollution Control
Jay Kayasth	BE	SEM-6	Chemical Process Industries
Patel Meet Manishbhai	BE	SEM-6	Air Pollution Control
Sanjar Husain Shaikh	BE	SEM-8	Air Pollution Control
Vinayak Sonawane	BE	SEM-8	Air Pollution Control
Patel Dipali Ketankumar	BE	SEM-8	Industrial organization & Supervisory Management
Dipali Patel	BE	SEM-8	Safety and Hazard Management
Vaibhav Vasava	BE	SEM-8	Mass Transfer Operation-II
Patel Dipali K.	BE	SEM-8	Process Heat Transfer
Suryavanshi Dhruv	BE	SEM-8	Sustainable Technology
Dharmik Patel	DE	SEM-6	Utilities And Instrumentation in Chemical Plant
Patel Dharmik Kumar	DE	SEM-6	Chemical Process Technology-II
Jadav Harsh Rajeshbhai	DE	SEM-6	Chemical Process Technology-II
Modi Prit Chetankumar	DE	SEM-6	Pollution Control & Effluent Treatment
Machhi Krutik	DE	SEM-6	Process Heat Transfer-I
Machhi Krutik Manishbhai	DE	SEM-6	Industrial Water Pollution
Neel Chauhan	DE	SEM-6	Pollution Control & Effluent Treatment
Jadav Harsh Rajeshbhai	DE	SEM-6	Industrial Water Pollution
Modi Pritkumar Chetankumar	DE	SEM-6	Industrial Water Pollution
Dharmikkumar Patel	DE	SEM-6	Utilities And Instrumentation in Chemical Plant
Chauhan Leesa Jagdishbhai	DE	SEM-6	Pollution Control & Effluent Treatment
Neel Kumar Chauhan	DE	SEM-6	Process Heat Transfer-I
Patel Dharmik Ashish Kumar	DE	SEM-6	Process Heat Transfer-I
Neelkumar M Chauhan	DE	SEM-6	Industrial Water Pollution
Sakshi Pandey	DE	SEM-6	Pollution Control & Effluent Treatment
Varsada Shiv Sureshbhai	DE	SEM-6	Utilities And Instrumentation
Vedan Prajapati	DE	SEM-6	Industrial Water Pollution
Modi Prit Chetankumar	DE	SEM-6	Chemical Process Technology-II
Meet Vankar	DE	SEM-6	Utilities And Instrumentation
Modi Prit Chetankumar	DE	SEM-6	Chemical Process Technology-II
Machhi Krutik Manishbhai	DE	SEM-6	Pollution Control & Effluent Treatment
Machhi Krutik	DE	SEM-6	Chemical Process Technology-II
Patel Daksh Baratbhai	DE	SEM-6	Process Heat Transfer-I
Jadav Harsh Rajeshbhai	DE	SEM-6	Process Heat Transfer-I
Chauhan Leesa	DE	SEM-6	Industrial Water Pollution
Sakshi Pandey	DE	SEM-6	Industrial Water Pollution
Dhruv Kamdar	DE	SEM-6	Mass Transfer
Modi Prit Chetankumar	DE	SEM-6	Mass Transfer
Dhruv Kamdar	DE	SEM-6	Mass Transfer
Machhi Krutik	DE	SEM-6	Pollution Control & Effluent Treatment
Patel Daksh Bharatbhai	DE	SEM-6	Chemical Process Technology-II



PAIR LEARNING FELICITATION (WINTER 2024)



Pair Learning promotes collaborative growth by encouraging high-performing students to mentor their classmates. A felicitation ceremony was held on 02-05-2025 for celebrating the success stories of pair learning of Winter 2024.



**UNIVERSITY
EXAM RESULTS
Diploma, B.E., M.E.
Winter - 2024**



Sr. No	Semester	Total	Pass	Fail	% Pass
1	D.E. Semester-3	208	174	34	83.65
2	D.E. Semester-5	104	98	06	94.23
3	B.E. Semester-3	132	86	47	65.15
4	B.E. Semester-5	54	50	04	92.59
5	B.E. Semester-7	107	104	03	97.19
6	M.E. Semester-1	09	09	00	100
7	M.E. Semester-3	12	11	01	91.67



**Top 3 from every class – Exam Summer 2025
Diploma Semester-III**



SPI – 9.91
CPI - 9.97

JHA KOMAL MANDRANJAN



SPI – 9.87
CPI – 9.89

RAJAK ANUP PRAKASH



SPI – 10
CPI - 9.89

PATEL HITKUMAR BHARATBHAI

Diploma Semester-V



SPI – 10/10
CPI – 9.95

VARSADA SHIV SURESHBHAI.



SPI – 10/10
CPI - 9.84

VANZA YASH C.



SPI – 10/10
CPI -9.82

RULESH KUMAR

UNIVERSITY EXAM RESULTS

D.E., B.E., M.E.

Winter - 2024

CHEMICAL ENGINEERING BRANCH



Top 3 from every class – Exam Winter 2024

B.E. Semester-III



SPI – 9.92

CPI - 9.92

DIGHE PRITEE S.



SPI – 9.42

CPI - 9.41

RANA MOHITKUMAR



SPI – 9.15

CPI – 9.37

PATEL PARTH

B.E. Semester-V



SPI – 9.86

CPI - 9.56

MANDAL AAKASHKUMAR R



SPI – 9.83

CPI – 9.45

KAUSHAL D SONAGRA



SPI – 9.71

CPI – 8.69

Panchal Neelkumar Rameshbha

B.E. Semester-VII



SPI – 10

CPI - 9.88

PATEL DIPALI K



SPI – 10

CPI - 9.52

MEHTA HARSH



SPI – 10

CPI - 9.75

SURTI ROHAN

UNIVERSITY EXAM RESULTS

D.E., B.E., M.E.

Winter - 2024

CHEMICAL ENGINEERING BRANCH



Top 3 from every class – Exam Summer 2025

M.E. Semester-I



SPI – 9.83

CPI - 9.83

Chauhan Trusha



SPI – 9.67

CPI - 9.67

Mahadevwala Manisha



SPI – 9.22

CPI - 9.22

Chauhan Jagruti

M.E. Semester-III



SPI – 10

CPI - 9.31

DJHA MRITYUNJAY



SPI – 9.83

CPI - 9.76

KAUSHIK VAJAPURKAR



SPI – 9.5

CPI - 9.52

PATEL DM G.

Congratulations!



PLACEMENT 2025

DEPARTMENT OF CHEMICAL ENGINEERING

Congratulates



STAR OXOCHEM PVT. LTD.

BORASIYA DARSHILSINH
(STAR OXOCHEM)



Bharat RASAYAN LIMITED
Fostering Prosperity

GADHESARIYA DARSH
(BHARAT RASAYAN)



UPL
Energy

GANDHI BHARGAVKUMAR
(UPL LTD.)



ROSSARI
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GOHIL KRUNAL
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GOHIL ROHANKUMAR
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PARMAR BRIJ
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(UPL LTD.)



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(UPL LTD.)



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Fostering Prosperity

PATEL YASHKUMAR
(BHARAT RASAYAN)



UPL
Energy

PATEL YAX
(UPL LTD.)



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Energy

PAWAR HARSHAL



ROSSARI
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PRAJAPATI BHAGIRATH



EPIGRAL

PRAJAPATI CHINTAN



ROSSARI
Empowering you more competitively

RAJ DIVYRAJSINH



UPL
Energy

SURTI ROHAN

BE Chemical Engineering students of 2021 - 25 batch for their placement in prestigious industries. Wishing them very best for their future endeavors.



PLACEMENT 2025

DEPARTMENT OF CHEMICAL ENGINEERING *Congratulates*



SHUKLA SHRUTKUMAR
(EPIGRAL LTD.)



VASAVA DHAIVALBHAJ
(LANXESS INDIA PVT. LTD.)



VASAVA VAIBHAV
(PANOLI INTERMEDIATE)



PARMAR TRUSHIL
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BAROT JAYKUMAR
(UPL LTD.)



BHARAMBE SHUBHAM
(PANOLI INTERMEDIATE)



KAYASTH RAJANKUMAR
(PANOLI INTERMEDIATE)



KHER VISHANTKUMAR
(BHARAT RASAYAN)



MARWADI MANANKUMAR
(NOCIL LTD.)



NIMAVAT DEVANGKUMAR
(PANOLI INTERMEDIATE)



PANDEY VISHNUDATT
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PARMAR DHANRAJ
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PATEL AYAZ
(NOCIL LTD.)



PATEL FENIL
(PANOLI INTERMEDIATE)



PATEL HARSHKUMAR
(PANOLI INTERMEDIATE)



PATEL JHENIL
(ROSSARI)



PATEL KEVALKUMAR
(ESKAY IODINE)



RATHOD PRATIK
(STAR OXOCHEM)



RAJ RAJDEEPSINH
(PANOLI INTERMEDIATE)



RANA MEET
(EPIGRAL LTD.)



RANA VIRENDRAKUMAR
(NOCIL LTD.)



SINDHA YASHRAJ
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SISODIA HARSH
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SURYAVANSHI DHRUV
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VASAVA AYUSH
(STAR OXOCHEM)

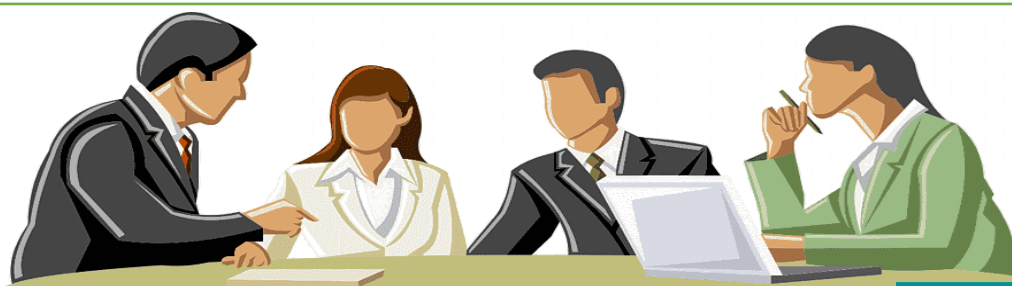
BE Chemical Engineering students of 2021 - 25 batch for their placement in prestigious industries. Wishing them very best for their future endeavors.

PLACEMENT 2025

Chemical engineering student Recruitment - 2025



Sr. No.	Company	No of students placed
1	UPL	08
2	Epigral	09
3	Panoli intermediates	09
4	Reliance	02
5	Bharat Rasayan	06
6	Star Oxochem	04
7	Eskay Iodin	01
8	Rossari Biotech	06
9	NOCIL	07
10	Lanxess	04
11	Cohizon	12
12	GNFC	02
13	Borosil	02
14	Meghmani	02
15	SRF	02
16	Tatva Chintan	01
17	Covestro	02
18	Adama	02



SRICT IChE Students Chapter – Activities (Summer 2025)



SRICT IChE Chapter Receives Prestigious Recognition Best Student Chapter Award 2024-25 (National level)

We are proud to share that the SRICT IChE Student Chapter has been honored with the Pidilite Industries Best Student Chapter Award 2024. The award was presented during CHEMCON 2024, held at NIT Jalandhar, and received on behalf of the chapter by our dedicated faculty members. We extend our sincere gratitude to all stakeholders for their unwavering support and encouragement in our journey towards excellence.



SRICT IChE Students Chapter – Activities (Summer 2025)



SRICT IChE Chapter Receives Best Student Chapter Award At Ankleshwar Regional Centre 2025

SRICT IChE Student Chapter has been awarded the Best Student Chapter Award by the IChE – Ankleshwar Regional Centre for the second consecutive year. The award was presented by Shri B. D. Dalwadi, Chairman, IChE–ARC, in the presence of esteemed dignitaries during the Annual General Meeting of IChE–ARC held on 29th June 2024.



SRICT IChE Students Chapter – Activities (Summer 2025)



Workshop on MATLAB (under banner of IChE)

- Three-day workshop on Introduction to MATLAB - based Programming: Applications in Chemical Engineering was organized on January 27-29, 2025.
- Mr. Prasil Jayeshkumar Kapadiy, Prime Minister's Research Fellow at IIT Bombay's Department of Chemical Engineering, conducted the workshop.
- B.E. Chemical Engineering students from various semesters actively participated.
- Key topics covered: Matrix operations, Solving linear & nonlinear equations, ODE initial value problems, ODE boundary value problems and Optimization & curve fitting.



MEET'S A23

SRICT IIChE Students Chapter – Activities (Summer 2025)



Career opportunities after Diploma Chemical Engineer



The Department of Chemical Engineering, in association with the IIChE SRICT Student Chapter, organized an insightful Alumni Talk at on the topic Career Opportunities After Diploma. The session saw active participation our enthusiastic students who had the valuable opportunity to interact with all six alumni from the very first batch of the Diploma program. These alumni shared their personal journeys, industry experiences, and practical insights. The primary aim of the program was to connect students with real-world experiences and help them make informed decisions about their career paths following diploma studies.



**ALUMNI
CONNECT**

21/58

SRICT IChE Students Chapter – Activities (Summer 2025)



Workshop on Excel for B.E. Students

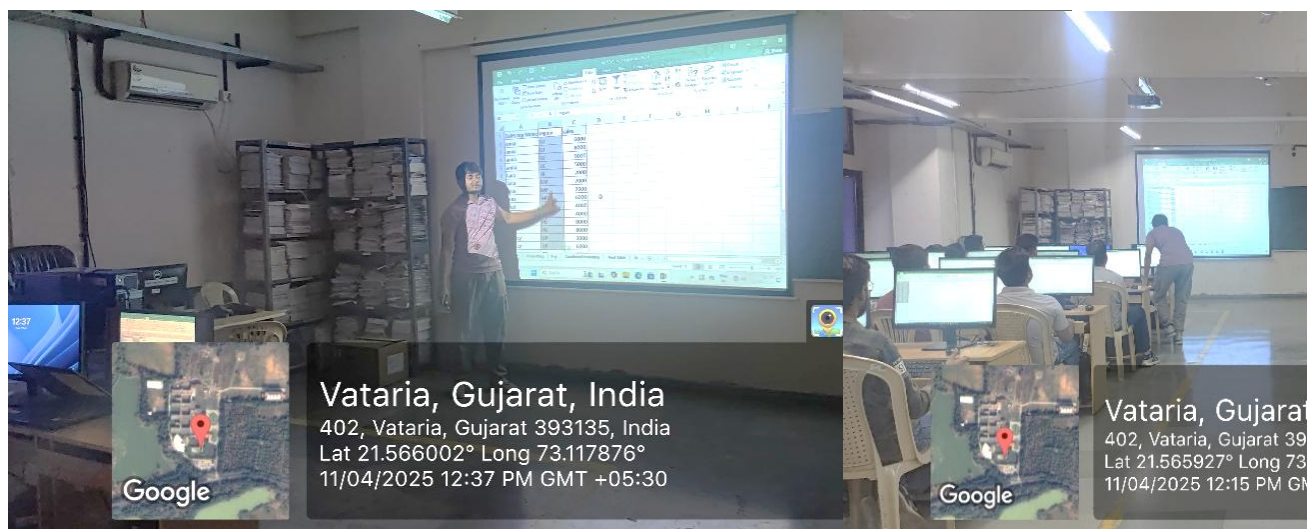
The Department of Chemical Engineering, under the SRICT IChE Student Chapter, organized a full-day workshop on "Excel" for second and third-year B.E. Chemical Engineering students on 11th April 2025.



The session was conducted by *Mr. Aakash Mandal and Mr. Meet Patel*, third-year B.E. students from UPL University. They provided a basic understanding of Excel, covering topics such as:

- Introduction to Excel
- Toolbars and their functions
- Formatting and alignment
- Data formatting
- Chart creation
- Pivot table creation

The workshop aimed to enhance students' practical skills in Excel, a vital tool for data handling and analysis in engineering.



SRICT IChE Students Chapter – Activities (Summer 2025)



Mock Test for Diploma Chemical Engineering Students

The Department of Chemical Engineering, in collaboration with the IChE SRICT Student Chapter organized a series of three mock exams (DDCET - Entrance exam) for Diploma Chemical Engineering students.



MOCK TEST

Coordinated by Mr. Mitul Parikh and Ms. Renuka Nasane, with support from enthusiastic student volunteers from B.E. VI and VIII semesters, the initiative aimed to familiarize students with the exam structure, time management, and the types of questions typically asked. The 150-minute mock test, carrying a total of 200 marks, was divided into two key sections: Engineering and Aptitude. The exercise offered students valuable practice and insights, serving as a strategic step in their exam preparation journey.



SRICT IICHe Students Chapter – Activities (Summer 2025)

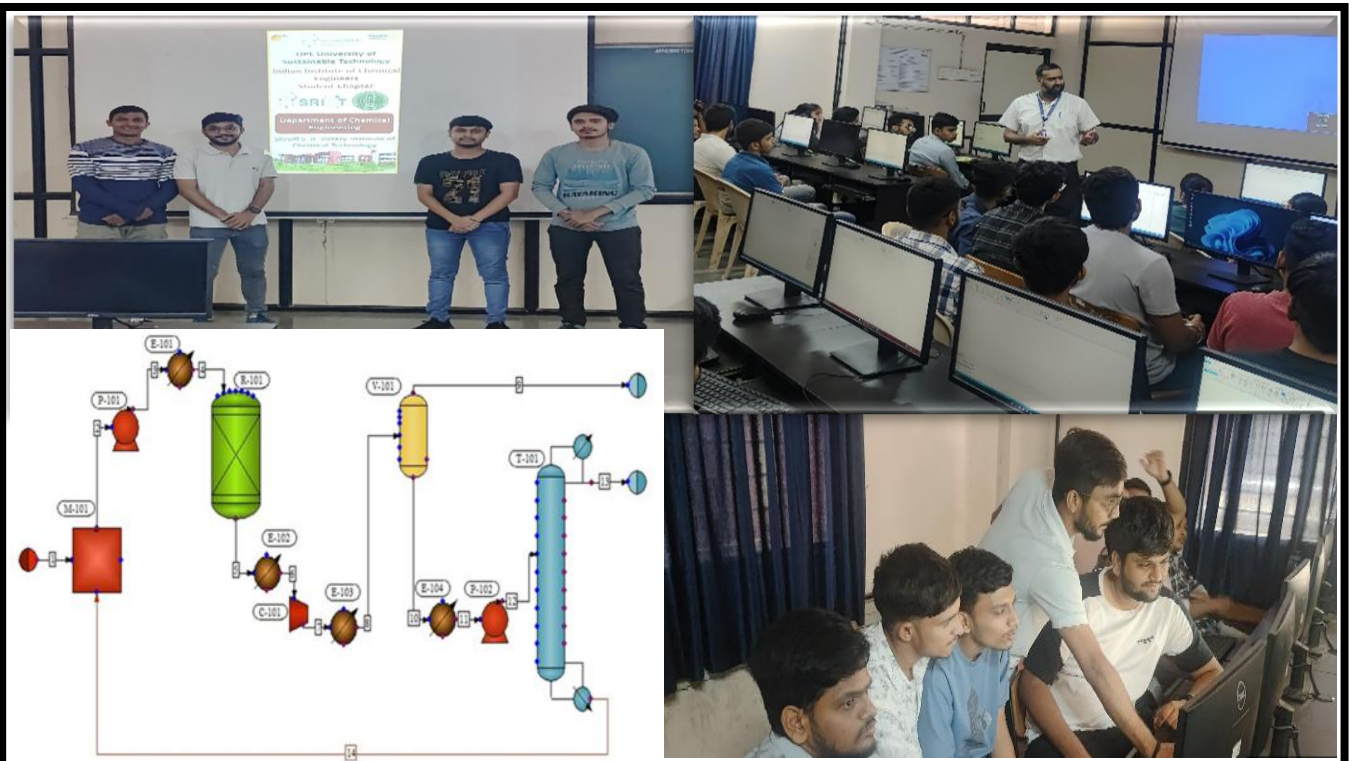


Workshop on “CHEMCAD” for B.E. Students



A CHEMCAD workshop was held on 21st April 2025 under the banner of the IICHe Student Chapter, offering hands-on training to 6th semester Chemical Engineering students

The session was led by 8th semester students - Jay Barot, Vidhit Gandhi, Rohan Surati, and Sanjar Hussain, who covered key topics such as simulator basics, piping, heat exchanger, and distillation column design. This peer-led initiative equipped students with practical skills that will enhance their internship and project preparedness.



SRICT IChE Students Chapter – Activities (Summer 2025)



Safety Awareness Program



As part of the 54th National Safety Week celebrations, the Department of Chemical Engineering, in collaboration with the IChE SRICT Student Chapter, organized a Safety Awareness Program on 5th March 2025.

Attended by B.E. 6th semester students, the session emphasized the importance of industrial and workplace safety. Dr. Rakesh Sinha and Dr. Swapna Panda delivered insightful presentations on hazard identification, emergency response, and preventive safety measures.

Interactive discussions and real-life case studies added depth to the session, making it both engaging and practically enriching.



National Safety Week

SRICT IIChE Students Chapter – Activities (Summer 2025)



"Treasure Hunt & Bingo Competition by Chemical Engineering Students"

As part of the 54th National Safety Week, the Department of Chemical Engineering, in collaboration with the IIChE SRICT Student Chapter organized a Safety-Based Event on 6th March 2025. The event featured fun and interactive activities like Treasure Hunt and Safety Bingo, creatively designed to raise awareness about workplace and industrial safety. With over 55 Chemical Engineering students participating, the activities included safety-themed clues and challenges, making the learning experience both engaging and educational.

This initiative successfully combined fun with learning, reinforcing the importance of safety in a memorable way.



SRICT IChE Students Chapter – Activities (Summer 2025)



Safety Slogan & Poster Making Competition



As part of the 54th National Safety Week, the Department of Chemical Engineering, in collaboration with the IChE SRICT Student Chapter, organized a Safety Poster and Slogan Competition on 6th March 2025. The event encouraged creative expression of industrial safety themes, promoting awareness through impactful visuals and messages.



SRICT IICHe Students Chapter – Activities (Summer 2025)



Safety Slogan & Poster Making Competition

Cont...



Memes & Reel Making Competition

The Department of Chemical Engineering, in collaboration with the IICHE SRICT Student Chapter at UPL University of Sustainable Technology, organized a Memes & Reel Making Competition on 7th March 2025 to creatively engage students in technical and social topics. This unique event provided students with a platform to express their creativity and humour while addressing relevant engineering and societal themes.



SRICT IICHe Students Chapter – Activities (Summer 2025)



“Team Building Event – Fun Games

As part of the 54th National Safety Week, the Department of Chemical Engineering, in collaboration with the IICHe SRICT Student Chapter at UPL University of Sustainable Technology, organized a Technical Safety Event on 7th March 2025. Designed to foster team-building and safety awareness, the event featured interactive games and challenges focused on workplace safety, risk management, and hazard prevention. A total of 21 groups, involving 76 Chemical Engineering students, participated enthusiastically.





Seminar on “Reading P&ID” for Final-Year Chemical Engineering Students

The Department of Chemical Engineering, under the banner of the SRICT IICHe Student Chapter, organized an exclusive half-day seminar on "Reading P&ID" for final-year B.E. Chemical Engineering students on 12th March 2025. The session was led by Ms. Shipra Gupta from UPL Unit-1, who delivered a highly insightful and practical session on Process and Instrumentation Diagrams (P&ID) - a vital tool in the chemical process industry. Her expert guidance helped students gain a deeper understanding of interpreting P&IDs and their application in real-world operations.



Other Activities

Refresher Course on 'Reaction Safety Assessment and Management'

One day refresher course on Reaction Hazard Assessment and Management was organized on 24th Jan 2025.

About 60 participants from various industries attended expert-led sessions on reaction hazard assessment, differential scanning calorimetry, reaction calorimetry, and chemical compatibility.

Chief guest – Mr. Nilay Vyas, Guest of honour – Mr. Sunil Thakar along with other esteemed guests attended the inaugural session.



Other Activities

Refresher Course on 'Reaction Safety Assessment and Management'

Cont...

Four technical sessions were conducted by experts:

- Mr. Vijay Bhujle (GVS Cibatech Pvt. Ltd.)
- Mr. Govind Keshavrao Patil (Jexcon India Pvt. Ltd.)
- Mr. Pratik Deshmukh (Mettler-Toledo India Pvt. Ltd.)
- Mr. Chirag Barvalia (Mettler-Toledo India Pvt. Ltd.)

Overall feedback was good.



Other Activities

Our presence and participation @CHEMCON

Our team of 4 faculty members (Dr. Swapna, Mr. Sunil Badgujar, Dr. Balsora and Mr. Sagar Jani) along with one M.E. students presented research work at CHEMCON-2024, held at NIT Jalandhar (Punjab) from December 27-30, 2024. They also received IChE Best student award.



Plant Operator Batch-1 Certificate Distribution

28 participants successfully completed the program and received their certificates in a ceremony that celebrated their dedication and achievement. The program was graced by the presence of distinguished guests, which included Shri Ashok Panjwani, President of our University, Mr. Ghanshyam Kotadia, Production Head, UPL Unit-5; Shri Harvindarsing Saini, Senior General Manager, Eskay Iodine and other members on our university



Other Activities

Participation in Education Fair



One to One Meetings

A one-to-one meeting was held on 27th January 2025 for DE Semester-6 Chemical Engineering students in the presence of the Hon. Provost. Students with backlogs were advised to clear all subjects before term end. Commitments were taken to improve academic performance. A separate session was held for students with CPI below 7 to address individual challenges.



Other Activities

Diploma faculty members attended one day seminar

Chemical engineering faculty members (Ms. Dhara, Ms. Shraddha, Ms. Apexa, Ms. Shivani, Mr. Ojha and Mr. Mitul) attended one day seminar on science-maths organized at Children Diamond Theatre on 1st Feb 2025.



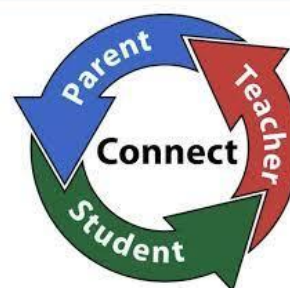
Parents Meeting

The Department of Chemical Engineering organized a Parent-Teacher Meeting today for parents of Diploma Semester 4 & 6 students with backlogs and low attendance.

The session focused on academic policies, ongoing initiatives like pair learning and extra support sessions by faculty, aimed at improving student performance.

Parent feedback highlights:

- Appreciation for SRICT's disciplined environment and timely attendance updates via WhatsApp.
- Concern about students reaching home late; suggested revising class timings.
- Emphasis on the impact of backlogs on placements and a shared commitment from faculty and parents to help students clear them.



Other Activities

Participation in Technology Conclave 2025



Dr. Wagh, Dr. Krunal, Dr. Nilesh, and Mr. Chintan attended the one-day Technology Conclave 2025, organized collaboratively by Siemens and IChE-ARC on 12th Feb 2025.

Prof. Wagh was invited as a Guest of Honour and addressed the gathering, sharing his insights on emerging trends in the industry and also briefed everyone about our University. Prof. Wagh also participated in a panel discussion on Resurgence of Fine and Specialty Chemicals in India, where he discussed key opportunities, challenges, and the future outlook and academic-industry partnership for the sector.



Other Activities

Lectures at LNG Petronet on 25-26 March 2025

Dr. Dinesh, Dr. Kartik, Dr. Swapna and Dr. Ravindra from Chemical engineering department delivered lectures on PPEs, Fire Hazards, emergency response & incident management and Material and Energy balance respectively at LNG Petronet.



Lectures at Zydus Life science Ltd.



Dr. Ravindra Kanawade conducted Q&A Session at Zydus Life science Ltd. on 10th January 2024.

Training Program at GNFC

A comprehensive training program was organized at GNFC, commencing on 17th June 2025. The program includes a total of 64 teaching hours delivered over approximately 32 days.



Other Activities

Continue »»

The training sessions at GNFC covered a broad range of foundational topics, including - Basics of Unit Operations and Unit Processes, Introduction to Mass Transfer, Heat Transfer, and Mechanical Operations, Water Storage and Treatment, Material and Energy Balances, Types of Reactors and Industrial Safety, Instrumentation and mechanical static equipment workings and principles.



The training aimed to strengthen participants' core technical understanding and industry readiness. The overall feedback from participants was very positive, highlighting the program's relevance and effectiveness.

Training Program for ITI students

A group of 37 students from ITI-Valia visited our university for internship. During the visit, students were introduced to key unit operations and lab-scale equipment. Faculty and staff conducted live demonstrations and brief explanations, helping students gain valuable insights into industrial processes and laboratory practices.



Other Activities

Chemical Plant Operator Mock Test and Viva – Batch 2

A mock test and viva for plant operator students were conducted on 22nd March 2025 to assess their theoretical knowledge and practical understanding of subjects. The test included multiple choice question-based assessments covering syllabus. All the candidates of second batch of plant operator completed the course successfully.



Orientation of Chemical Plant Operator, Batch 3

The third batch of Chemical Plant Operator was inaugurated on Orientation on 22nd March 2025. Introductory sessions were conducted to provide detailed insights into the subjects that will be covered, exam pattern, course outcomes and importance of the course. Additionally, an overview of the college, its facilities, and learning resources was shared to help students adapt to the academic environment and prepare for their training effectively.



Biomass Conversion and Biorefinery: A Sustainable pathway for future energy and material needs

- Renuka Nasane, Department of Chemical Engineering

Introduction

In the face of climate change, rising energy demands, and resource depletion, the global community is urgently seeking cleaner, more sustainable alternatives to fossil fuels. Biomass conversion and biorefinery technology present a promising solution to address these challenges while meeting future energy and material needs. By utilizing renewable biological resources and transforming them into a wide range of products, biorefineries can significantly reduce environmental impacts and support the transition toward a circular, bio-based economy.

Understanding Biomass and Its Potential

Biomass refers to any organic material derived from plants, animals, or microorganisms that can be used as a source of energy and chemicals. Common biomass sources include agricultural residues (such as rice husk and sugarcane bagasse), forestry waste, algae, food waste, and dedicated energy crops. Biomass is abundant, renewable, and carbon-neutral, making it an ideal feedstock for sustainable development.

The conversion of biomass into energy or products can be achieved through various processes. These include thermochemical methods such as pyrolysis, gasification, and hydrothermal liquefaction, as well as biochemical methods like anaerobic digestion and fermentation. The goal is to extract valuable components such as biofuels, bioplastics, biochemicals, fertilizers, and even electricity, all while minimizing waste.

Role of Biorefineries

Biorefineries function similarly to petroleum refineries but use biomass as the input. They are designed to integrate multiple technologies and processes to convert biomass into a spectrum of marketable products and energy. A biorefinery typically includes pre-treatment of raw biomass, conversion technologies, product separation and purification units, and utilities for energy management.

Sustainability and Environmental Impact

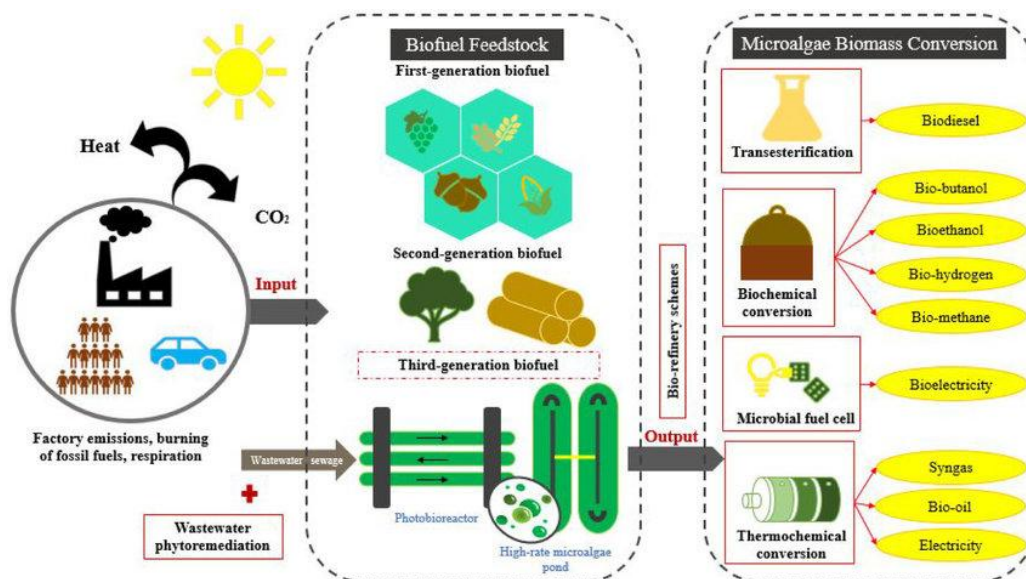
One of the primary advantages of biomass conversion is its contribution to reducing greenhouse gas (GHG) emissions. Biomass absorbs CO₂ during its growth cycle, offsetting emissions generated during conversion. Moreover, the use of waste biomass reduces landfill burden and methane emissions.

CHEMICAL ENGINEERING MAGAZINE ARTICLES

Biorefineries also support rural development by creating jobs and adding value to agricultural by-products. They promote energy security by reducing dependence on fossil fuel imports and contribute to economic diversification through the production of bio-based goods.

Challenges and the Way Forward

Despite the numerous benefits, the implementation of biomass conversion and biorefineries faces challenges. These include high capital investment, technological complexity, feedstock variability, and logistical issues related to biomass collection and transportation. Furthermore, scaling up lab-scale innovations to commercial levels requires robust policy support and investment. To overcome these barriers, coordinated efforts are needed from governments, industries, and academic institutions. Investment in research and development, incentives for green technologies, and the establishment of infrastructure for biomass supply chains are crucial steps.



Source (fig.): <https://www.tribhakti.com/biomass-conversion-and-biorefinery/>

Conclusion

Biomass conversion and biorefinery technologies offer a viable and sustainable solution to meet the world's growing demand for energy and materials. By shifting from a fossil-based to a bio-based economy, we can reduce our environmental footprint, utilize renewable resources efficiently, and move toward a cleaner, greener, and more sustainable future.

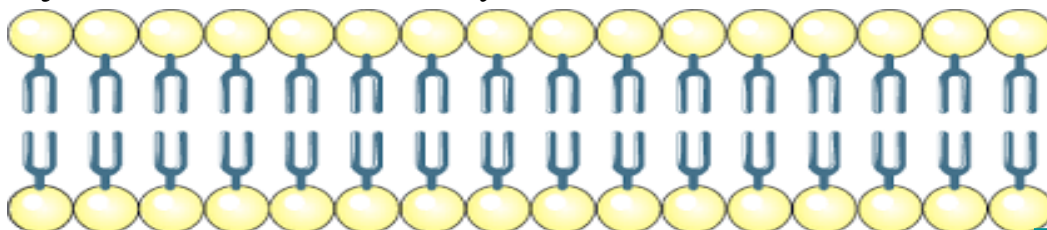
Reference: Maryana, R. et al. (2024). Current Progress on Biomass Pretreatment: The Key for Its Valorization. In: Lubis, M.A.R., et al. Biomass Conversion and Sustainable Biorefinery. Green Energy and Technology. Springer, Singapore.

Crosslinked Polymeric Membranes: Solutions for Organic Solvent Separation

- Sagar Jani, Department of Chemical Engineering

As more and more industries get linked to energy usage, solvent recovery, and environmental effects, membrane separation has come up as a really good alternative to the old ways of distillation and solvent extraction. Especially in places like pharmaceuticals, petrochemicals, and the dyes and textile industry, separation steps have large organic solvents that are sharp; thus they need membranes with much durability. To fulfill this, attention has been mainly put on the development of organic solvent-resistant membranes. Among them, great materials have been polyetherimide, polyethersulfone, and polyvinylidene fluoride. All three come with baseline thermal and chemical resistance which in many cases is not enough during prolonged exposure to solvents. Crosslinking is used by scientists to enhance their long-term stability as well as separation efficiency. This is a chemical treatment that attaches polymer chains to each other making a tighter network which is stable towards solvents.

Crosslinked films exhibit great enhancement in solvent resistance, mechanical strength, and selectivity. For instance, m-phenylenediamine (MPD) crosslinked PEI membranes were applied in the treatment of wastewater containing dyes thereby removing azo dyes such as Reactive Black 5. These membranes kept very high rejection values and excellent structural integrity throughout extended usage. Likewise, tannic acid (TA) crosslinked PEI films showed improved dye/salt separation as a result of increased surface charge and pore structures which are more compact. PES is typically applied as a supporting membrane and hence it also benefits from crosslinking and surface modification. Porosity and compatibility with TFC membrane layers are reported to have been improved through the introduction of hydrophilic additives by the researchers, one of which is polyethylene glycol (PEG). In another research work, interfacial polymerization was used to combine polyamide with PES support layer which in turn resulted in excellent dye rejection and thermal stability.

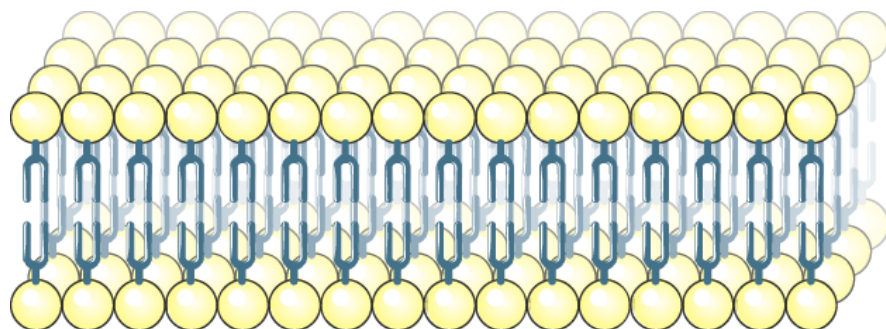


Continue »

PVDF membranes are normally hydrophobic; however, they have been successfully customized for OSR applications through surface grafting and addition of nanoparticles. It is like the case of PVDF membranes modified with dopamine, which exhibited improved water affinity and dye removal capability. Also, linking PVDF with acrylic acid and ethylene glycol dimethacrylate produces membranes that can tolerate high salinity as well as acidic and basic conditions; these are applicable to oil–water emulsions separation. Further advances comprise mixing PVDF with GO (graphene oxide) to make membranes with improved solvent resistance and mechanical properties, which presents great promise in pervaporation and dehydration of solvent–water systems such as isopropanol–water mixtures. Such advances make PVDF based membranes much more versatile across separation platforms. Beyond performance benefits, crosslinking methods are presently being tested on a large scale to assess their scalability, cost effectiveness, and environmental repercussions. Given projected increases in industrial membrane usage, maintaining membrane reproducibility in a high-scale synthesis is particularly urgent.

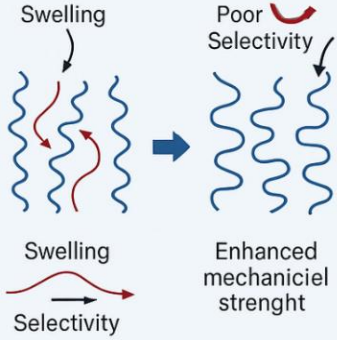
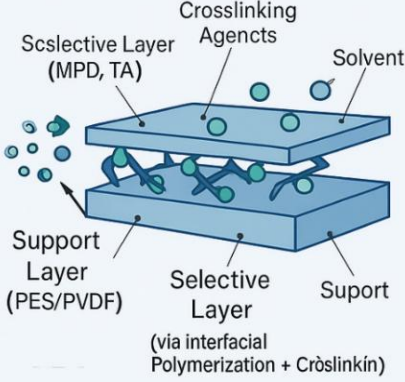



Additionally, the long-term fouling patterns and efficient cleaning staircase of novel crosslinked membranes have also been investigated in real-life settings. However, these newly developed membranes often have lower flux values because the denser barrier layer is generated after alteration. To negate this effect, eco-friendly implementation procedures were studied, including UV-triggered polymerization and hydrogen bonding, which enable retention of an acceptable permeation value while creating minimal environmental and operational upkeep burdens.

As separation challenges become increasingly complex, crosslinked polymeric membranes provide a reliable, adaptable, and sustainable platform. Through careful material selection and chemical design, these membranes assist industries in transitioning toward cleaner, more efficient solvent recovery and wastewater treatment technologies.



Continue »»

Structure and Performance of Crosslinked Polymeric Membranes in Organic Solvent Separation

Uncrosslinked PEI/PES/PVDF	Thin-Film Composite (TFC) Membrane	Benefits
 <p>Swelling → Poor Selectivity</p> <p>Swelling → Enhanced mechanical strength</p> <p>Selectivity</p>	 <p>Scselective Layer (MPD, TA)</p> <p>Crosslinking Agents</p> <p>Solvent</p> <p>Support Layer (PES/PVDF)</p> <p>Selective Layer</p> <p>Support</p> <p>(via interfacial Polymerization + Crosslinkin)</p>	<ul style="list-style-type: none"> • High Dye/salt rejection • Acid/base/solvent stability • Low fouling tendency • Green fabrication potential <p> Textile Dye Wastewater</p> <p> Organic Solvent Recovery</p> <p> Pervaporation Alcohol-Water Mixtures</p> <p>Crosslinked membranes perform across diverse industrial applications</p>
<p>Crosslinking strengthens the polymer network, improving resistance to swelling and enabling solvent transport</p>	<p>TFC membranes allow independent tuning of support and selective layers, with crosslinking enhancing chemical resistance</p>	

References:

- Cui, J. et al., Sep. Purif. Technol., 2021.
- Zhu, S. et al., J. Membr. Sci., 2015.
- Zeng, G. et al., Chem. Eng. J., 2017.

By Mr. Sagar Jani

Material Science driving change: Strong and Sustainable GFRP

- Krunal J. Suthar

Material science is transforming construction, with Glass Fiber Reinforced Polymer (GFRP) emerging as a game-changer. Lighter than iron, non-corrosive, and twice as strong as steel in tension, GFRP offers unmatched durability and ease of use. It is non-conductive, up to four times lighter, and ideal for roofs, slabs, columns, and marine structures. Just 130 kg of GFRP can replace 1 ton of steel, cutting construction costs by up to 30%. Backed by global certifications, GFRP represents a smart, sustainable alternative for building the infrastructure of tomorrow.



Reference: Feasibility and Utilization of GFRP in Concrete Structures, Ankit Raj Sinha¹, Sanjay Prakash¹, Khushwant Singh¹, Saurabh Kumar¹, Chandan Kumar, International Journal of Engineering Research & Technology (IJERT), Vol. 9 Issue 08, August-2020

Production of Pulp & Paper from Groundnut Shell

Chauhan Leesa, Chauhan Neel, Modi Manthan, Pandey Sakshi, Mrityunjay Ojha, Department of Chemical Engineering, UPL University of sustainable technology

Abstract: In today's time, where de-forestry is the major problem for the world. The main reason of it is, raw materials required for pulp production is wood. The search of alternative of wood which have as same fiber contain, cellulose as or more than wood. However certain agriculture plant produces high biomass than wood. That biomass found to be suitable for industrial use. The Groundnut shell can contain high fiber, cellulose than wood. In this project, we use waste groundnut shell in Kraft process, producing pulp than paper production.

Keywords: Groundnut shell, Kraft process, Pulp, Black liquor, Paper

Introduction: In the world full of use of paper made by pulp which is high in cellulose contain. Those pulp are extracted from wood. New development in pulp & paper industries is the substitute of wood is groundnut shell. The reason behind the selection of groundnut shells as raw material is, after the nuts are removed, the shells will be wasted. Tons of groundnut shells are thrown away annually.

Literature survey:

Raw material- Groundnut shell

Contain- Cellulose, Hemi-cellulose, Lignin, Ash

of use- Chemical Kraft Process

Sr. No.	Composition	Dry weight %
1	Cellulose	35.7
2	Hemi cellulose	18.7
3	Lignin	30.2
4	Ash	5.9
5	Other containments	9.5



Continue >>

Kraft process:

- **Raw material:** Collect groundnut shells
- **Cleaning:** Wash them properly to remove all dust
- **Preparing cooking liquor:** Required chemical for cooking liquor
 - Sodium Hydroxide (NaOH) 58.6%
 - Sodium Sulfide (Na_2S) 27.1%
 - Sodium Carbonate (Na_2CO_3) 14.3%
- **Heating:** Heating the raw material in cooking liquor at 80-90°C
- **Separation:** Filter brown pulp & black liquor
- **Bleaching:** Bleach that brown pulp (Sodium Hypochlorite (NaClO))
- **Cleaning:** Wash with water to remover excess amount of bleach
- **Paper making:** Use of mauled to make paper
- **Drying:** Dry hat paper, remove unnecessary surface

Conclusion: In Kraft process, alkali chemical process occurs in which sodium carbonate use for breaking lignin bond. Those cooking liquor is excellence to break lignin so easily pulp can extract from groundnut shell. The main advantage of this process is that it required less heat for cooking liquor, this liquor can quick break lignin bond than other processes.



Reference:

- A study on production of pulp from groundnut shell (International Journal of Scientific & Engineering Research Volume-7, Issue-6, June-2016)
- Production of paper from groundnut shells (IJRCE Volume-7, Issue-2, February-2018)
- Manufacture of pulp extraction to produce paper from groundnut shell (IJLTEMAS Volume-8, Issue-1, January-2019)
- Eco-friendly pulp extraction for pulp production using groundnut shells (IJISRT Volume-9, Issue-11, November-2024)

The Transition Journey: Diploma to Degree Story

How would you describe your transition from Diploma to B.E.?

Vedant: The transition from Diploma to B.E. was smooth overall, though there were noticeable differences between the two programs. Initially, we struggled a bit with handling lab equipment and adapting to the increased technical depth, but over time, we became more comfortable. One area that could improve in the Diploma program is the final year project—it would be more beneficial if it were better integrated with industrial visits and real-world applications.

Where do you see yourself 10 years from now?

Pritee: Having completed my Diploma and now pursuing B.E., I have had the opportunity to deliver peer learning sessions. Initially, I had stage fear, but preparing and presenting in front of others helped me overcome it. This experience sparked my interest in teaching, and I now enjoy delivering lectures. Looking ahead, I see myself pursuing a career in academics, and I aspire to become a professor in the future.

What improvements would you like to see in the department?

Pritee: We did like to see more emphasis on practical exposure. We have noticed that even ..

average-performing students have done well in the industry due to their hands-on experience. Industrial visits and practical sessions have always been exciting and valuable for us. We also suggest that theory classes incorporate more real-world examples and case studies. Additionally, some faculty members could adopt more innovative teaching methods to make learning more engaging. Otherwise, the department is doing well.

Why do many students face backlogs in the initial semesters, particularly in the Diploma program?

Pritee: One major reason, in my view, is mobile addiction. Many of my friends were heavily involved in mobile gaming, which affected their focus. Overconfidence is another issue—students often rely too much on clearing exams through MCQs without truly understanding the concepts.

This exam-oriented mindset leads to rote learning and limited preparation. Also, while Pair Learning is a great initiative, its implementation can be more structured and consistent for better results.

How important is peer interaction in academic life?

Vedant and Pritee: Peer interaction is extremely important. Juniors often approach us for guidance on what subjects to prioritize and even for tips on dealing with faculty members (in a light-hearted way!). On a serious note, engaging with peers helps in clearing doubts, sharing resources, and building a supportive learning environment.



Vedant Mangrola
B.E. Semester-5
Chemical Engineering



Pritee Dighe
B.E. Semester-5
Chemical Engineering



ALUMNI | Column

I Dipali Patel, excited to share my experience as an alumnus of the 1st batch of UPL University of Sustainable Technology. As I look back on my four incredible years at UPL University of Sustainable Technology, where I pursued my BE in Chemical Engineering, I am filled with gratitude and pride.



Beyond the rigorous academic curriculum, I had the privilege of being an active NSS (National Service Scheme) Volunteer, which allowed me to engage in diverse initiatives that complemented my technical learning. Starting with Induction program, Industrial Visits, Expert Talks, 1-2-1 meeting with Ashok Panjwani Sir, Summer Internship and many more which not only enriched my knowledge but also fostered a strong connection with the college. Initiatives like PLI, IICHE & 5S activities shaped my technical and managerial abilities as well as enhanced my skills in presentation and overcoming stage fear. My journey at this university has been truly transformative, and I'm grateful for the experiences and opportunities that shaped me into the person I am today.

I found myself indeed lucky to be a part of this University.

Thank you to everyone who has been a part of this incredible journey!

Dipali K. Patel



Our alumni, *Mr. Rishabh Tiwari* from B.E. Chemical Engineering, batch 2020-24 cleared GaATE 2025 scoring AIR 580. He has successfully secured admission to the M.Tech program in Chemical Engineering at IIT Kanpur. We wish him all the best for his future endeavour.

ALUMNI | Column

I, Krutik Machhi, am proud to share my experience as an alumnus of UPL University of Sustainable Technology, where I completed my Diploma in Chemical Engineering. These three years have been a truly valuable chapter of my life. From classroom learning to practical exposure in labs and industrial visits, every part of the journey helped shape my academic foundation.



I have grown not only in knowledge but also in confidence. The support from faculty members and the guidance from our department played a key role in helping me overcome challenges and stay motivated. I'm also thankful for the friends and classmates who made this journey meaningful and memorable. UPL University gave me more than a diploma - it gave me the mindset to grow, the skills to move forward, and memories I'll always carry with me. Thank you to everyone who was part of this amazing journey.

Krutik Machhi

Diploma Batch (2022–2025)

Congratulations to our alumni,

Mr. Deep Modi

(from BE chemical engineering 2020-24 batch)
for successfully winning 8th Piramal Pharma
Kaizen Convention.

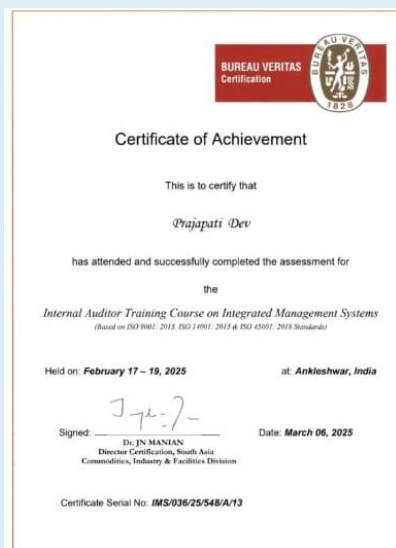
We feel proud of our alumni and wish all the best
for future endeveous.



Deep Modi, 1st from left

ALUMNI | Column

Congratulations to our alumni, Mr. Dev Prajapati (from BE Chemical Engineering Batch 2020-24) for successfully completing IMS (Integral Management System) certification. He is presently working in Acutaas Chemicals Ltd. We wish him all the best for future.



Congratulations to our alumni, **Mr. Smit Patel** (from BE chemical engineering 2020-24 batch) for representing and winning 1st prize in YQM Quiz competition. He also secured 2nd prize in the Kaizen competition. We feel proud of our alumni and wish all the best for future endeavour.



ACHIEVEMENTS

Presentation at GCPC organized program (Interlinkage of Industries-Academia-Government)



Mr. Kunal Argade from the Chemical Engineering Department secured 2nd place for his abstract submitted under the GCPC program on Interlinking of Industry, Academia, and Government (2024–25). He was awarded a cash prize of ₹5,000, presented by Dr. Bharat Jain, Member Secretary, GCPC.

Dr. Krunal J. Suthar was recognized by the Journal - Education for Chemical Engineers as one of the top reviewers.



We are proud to share that Dr. Swapna Rekha Panda and Mr. Sudeep Wadia have successfully completed the **PGD – Process Safety** course – Summer 2025, securing an impressive SPI of 9.16 and 9.13, respectively. Congratulations to both our faculty members on this achievement!



Dr. Swapna Rekha Panda
Associate Professor



Mr. Sudeep D. Wadia
Assistant Professor

ACHIEVEMENTS

FDP/NPTEL Summer 2025

Sr. No.	Faculty Name	FDP Topic	Duration
1	Mr. Sunil M. Badgujar	Chemical Process Safety	16–20 Dec 2026
2	Mrityunjay R. Ojha		
3	Mr. Sudeep D. Wadia		
4	Mr. Dhruv A. Patel	Python for Chemical Engineers	9–14 Dec 2025
5	Dr. Krunal J. Suthar		
6	Mr. Argade Kunalkumar Pramodrao	Integrating Synergism among Chemical Processes and Technologies for Sustainable Development	10–15 Feb 2025
7	Mr. Chintan K. Modi	Green Chemistry, Sustainable Agriculture and Advances in Food Processing Systems	17–22 Feb 2025
8	Mr. Kunal Argade		
9	Mr. Mitul Parikh		
10	Dr. Krunal J. Suthar	Energizing Sustainability: Electric Vehicles and their Contribution in Environmental Conservation	10–15 Feb 2025
11	Dr. Kartik S	Biomass Conversion and Biorefinery (NPTEL Course)	Jan–Apr 2025
12	Ms. Renuka Nasane		

Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
KARTIK S
for successfully completing the course
Biomass Conversion and Biorefinery
with a consolidated score of **75** %

Online Assignments	22.5/25	Proctored Exam	52.5/75
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Total number of candidates certified in this course: **646**

Jan-Apr 2025
(12 week course)

T. V. Bharat
Prof. T. V. Bharat
Head, Centre for Educational Technology
NPTEL, Coordinator, IIT Guwahati

Elite

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
RENUKA RAVI NASANE
for successfully completing the course
Biomass Conversion and Biorefinery
with a consolidated score of **61** %

Online Assignments	21.5/25	Proctored Exam	39.75/75
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Total number of candidates certified in this course: **646**

Jan-Apr 2025
(12 week course)

T. V. Bharat
Prof. T. V. Bharat
Head, Centre for Educational Technology
NPTEL, Coordinator, IIT Guwahati

RESEARCH PUBLICATIONS

Chemical Engineering

Summer 2025 (Dec 2024 to June 2025)



- J. Joshi, S. Gautam, A. Gheewala, **A. Gautam**, "Extraction and isolation of stevioside and rebaudiana A from Stevia Bertoni leaves", Bulgarian Chemical Communications, Volume 57, Special Issue B (pp. 244-250) 2025 <https://doi.org/10.34049/bcc.57.B.A0018>
- **Krunal J. Suthar**, Natural Deep Eutectic Solvents in Extraction Science: Progress, Challenges, and Future Prospects, Separation Science Plus, Volume8, Issue6, June 2025, e70075, <https://doi.org/10.1002/sscp.70075>
- **Kanawade, R.**, Chendake, Y.J., Asthana, S., **Panda, S.R.** (2025). Nanomaterials for Capturing and Storing CO₂: A Sequestration Approach. In: Desimone, M.F., Jotania, R.B., Khomane, R.B., Chaudhary, R.G. (eds) Nanotechnology. Nanotechnology in the Life Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-86508-4_7
- Kapoor L., Jha J.M., **Pandey D.**, **Balsora H.**, Parametric optimization by Box-Behnken design in the pyrolysis of spent coffee grounds and kinetic study, Biofuels, Jul 2025, <https://doi.org/10.1080/17597269.2025.2523646>
- Jignesh Joshi, Shina Gautam, **Alok Gautam**, Optimization of Parameters for Extraction and Isolation of Steviol Glycosides (SGs) from Stevia rebaudiana leaves using Water, Indian Journal of Environmental Protection, 44(14): 1268-1276 Vol. 44 Issue. 14
- J. Joshi, S. Gautam, A. Gheewala, **A. Gautam**, Extraction and isolation of stevioside and rebaudiana A from Stevia Bertoni leaves, Bulgarian Chemical Communications, Volume 57, Special Issue B (pp. 244-250) 2025 <https://doi.org/10.34049/bcc.57.B.A0018>
- **Sunil M Badgujar**, Ujwal D Patil, Jitendra S Narkhede, Impact of Different Mixing Techniques on Iron Oxide Nanoparticles Synthesized Via Co-Precipitation Method, Nanotechnology Perceptions 20 No. S16 (2024) 760-773
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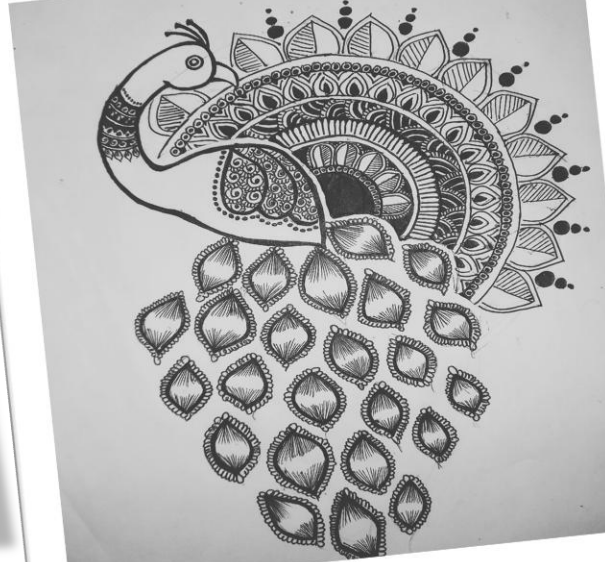




Student's Corner



Jash vadakar BE sem- 4



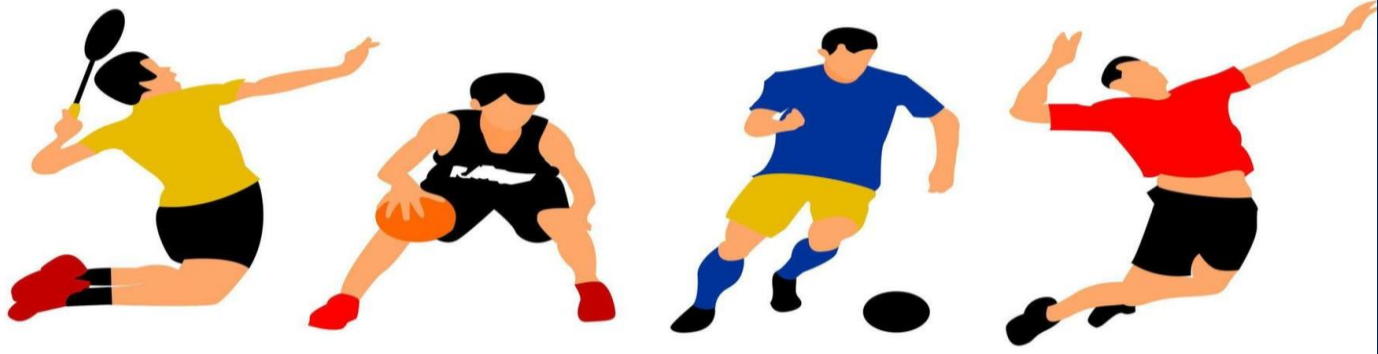
Manasi Patel DE sem-4



Hit Patel DE sem-4



Keya Prajapati BE sem-6



Our participation in WINSTINCT-2025 (Annual Sports Day Celebration)





Welcome to the 15th edition of CHEMEZINE – your window into the vibrant world of Chemical Engineering at our university! This issue brings you snapshots of the semester’s highlights from exciting events to inspiring achievements. A big thank you to everyone who made this edition possible.

We invite more participation from our stakeholders. Students, faculty and all stakeholder, send in your creative, technical or thought-provoking pieces for our next edition. Until then — read on, stay inspired, and keep the CHEMEZINE spirit alive!

Looking forward to receiving valuable feedback.

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We express our deepest condolences and heartfelt tribute to all those who tragically lost their lives in the airplane crash in Ahmedabad on June 12th. Our thoughts and prayers are with the families and loved ones affected by this profound loss.

May their souls rest in peace.

