UPL UNIVERSITY OF SUSTAINABLE TECHNOLOGY

ISSUE - 14
July 2024 to Nov 2024

CHEMEZINE

Chemical Engineering e-Magazine

Presenting the IIChE Best Student Chapter Award of regional centre to the Chemical Engineering students of SRICT, UPL University of Sustainable Technology

Creating Competent Chemical Engineers for the world of tomorrow

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 odd semester (July–November) always feels swift, filled with vibrant festivals and celebrations. The Department of Chemical Engineering has had an incredibly engaging Winter 2024 session. Our dedicated team has excelled in teaching, learning, research, and organizing impactful programs, showcasing a spirit of teamwork and excellence.

Among our key achievements, our students shone at SCHEMCON, winning the Best Oral Presentation award, and the department was honored with the IIChE Best Students Chapter Award at both regional and national levels. We will be receiving the award during CHEMCON 2024, this December. These accolades highlight the quality and quantum of our efforts at UPL University.

During this semester, we received the sad news of Dr. Keki Gharda's passing. Celebrating his extraordinary life and contributions, we organized a one-day symposium on Distillation, which brought together over 100 participants and eminent speakers. The symposium was a tribute to Dr. Gharda's legacy, and we have pledged to commemorate his values annually on September 25th (his birth anniversary). Our students have also made us proud by actively participating in diverse activities. In July, some had the privilege of interacting with Dr. G. D. Yadav. Students also organized technical festivals and celebrated Teachers' Day with enthusiasm.

A detailed report of the events and achievements of the Department of Chemical Engineering is available in this edition of Chemezine (CHEMical engineering E-magaZINE). Overall, the semester has been highly productive, with students achieving commendable academic results. We, at UPL University, remain committed to continuous improvement and excellence, driven by our shared vision. We invite all stakeholders to join hands in contributing further to our journey of growth and success.

- Krunal J. Suthar

Meet Our Team

Department of Chemical Engineering

Dr. Shrikant J. Wagh
Provost & Professor

Dr. Alok Gautam
Professor & Dean –R&D

Dr. Krunal J. Suthar
Associate Professor & Head

Dr. Ravindra Kanawade
Associate Professor

Dr. Swapna Rekha Panda
Associate Professor

Mr. Sunil M. Badgujar
Assistant Professor

Dr. Hemant Balsora
Assistant Professor

Mr. Chintan K. Modi
Assistant Professor

Dr. Dinesh Pandey
Assistant Professor

Dr. Rakesh Sinha
Assistant Professor

Mr. Sudeep D. Wadia
Assistant Professor

Mr. Sagar Jani
Assistant Professor

Mr. Kunal Argade
Assistant Professor

Ms. Shraddha Pandya
Lecturer

Mr. Mrityunjay Ojha
Lecturer

Mr. Mitul Parikh
Lecturer

Ms. Shivani Modi
Lecturer

Mr. Dhruv A. Patel
Lecturer

Mr. Nirmal Patel
Lecturer

Ms. Renuka Nasane
Lecturer

Ms. Dhara Patel
Lecturer

Ms. Apexa Patel
Lecturer

Mr. Praful Mokadam
Lab Assistant

Mr. Anirudhdha Raj
Lab Assistant

Ms. Rupali Patil
Lab Assistant

INDUSTRIAL VISITS

Batch	Course	Sem	Industry	Place
2023 -26	Diploma	III	Solenis, Ankleshwar	Panoli
			Gumandev Chemicals	Jhagadia
			Sterlite Organics	Panoli
2022 - 25	Diploma	V	Narmada Clean Tech	Valia
			SBD Healthcare	Panoli
			Gumandev Chemicals	Jhagadia

BE-3 @Gumandev Chemicals

DE-5 @Narmada Clean Tech

DE-3 @ Oasis Ceramics

INDUSTRIAL VISITS

Batch	Course	Sem	Industry	Place
2023 - 27	BE	III	Apex Pharma	Ankleshwar
			Speqtus Industries	Panoli
			Gumandev Ind.	Panoli
2022 - 26	BE	V	Godrej Industries	Valia
			Zydus Lifesciences	Ankleshwar
			Plasma Exhibition	Ankleshwar
2021 -25	BE	VII	Analpa Industries	Ankleshwar
			Prime Consultants	Ankleshwar
			Element Chemilink	Ankleshwar

B.E. Sem-V @Godrej Valia

B.E. Sem-III @APEX Pharma

GLIPMSE OF INDUSTRIAL VISITS

Visit of DE-5 at Narmada Clean Tech

Visit of BE-3 at Speqtus Industries

Visit of BE -7 at Analpa Industries

EXPERT LECTURES B.E.

Sr. No	Semester	Expert Name, designation and organization	Topic
1	B.E. III	Mr. Kirat Raval (Production Manager, Cavestro India Pvt. Ltd.)	Opportunities of Chemical Engineers in Industries
2	B.E. III	Mr. Kashyap Desai (Sr. Manager, Process Engineering & Technology Transfer, Heubach Ltd.)	Methodology of material balance in Projects and Design of Experiments
3	B.E. III	Mr. DeepRaj Patil (Process Engineer, Aarti Industries)	Scope of Chemical Engineering in Design Engineering
4	B.E. V	Mr. Tejas Chauhan (Project Lead, BEIL Research & Consultant)	Biogas: A Renewable Energy Source (Importance, Science, and Upgradation
5	B.E. V	Mr. Sagra Kalwade (Arach GreenTechn Chemical, Owner) Ankleshwar	Waste Water Treatment
6	B.E. V	Mr. Kirat Raval (Production Manager, Cavestro India Pvt. Ltd.)	Chemical engineering scope in Industry
7	B.E. VII	Dr. Ajaykumar K.S. Kallai (Vice President, Uniphos Envirotronic Pvt. Ltd., Vapi)	Chemical Detector tube for Toxic Gas Monitoring
8	B.E. VII	Mr. Praveen Prashant (Executive Editor, Indian Chemical News)	Emerging opportunities in Chemical Industry
9	B.E. VII	Mr. More, Acumen, ESPI Marketing	Higher study guidance
10	B.E. VII	Mr. Santosh Telange (AGM, Coromandal Ltd.)	Agitation and mixing in industries
12	B.E. VII	Mr. Hemant jindal (Senior Manager & Head of Process Engineering, DSM-Firmenich, Dahej)	Mixing process and P&ID design
13	B.E. VII	Mr. Rajnish Bajaj (Ex. General Manager, L&T)	Industry Readiness

EXPERT LECTURES GLIPMSE (B.E.)

B.E. Semester-3: Mr. Deepraj Patil

B.E. Semester-5: Mr. Bhavik Mahant

B.E. Semester-7: Mr. Sagra Kalwade

B.E. 5: Mr. Kirat Raval delivering expert talk

EXPERT LECTURES D.E.

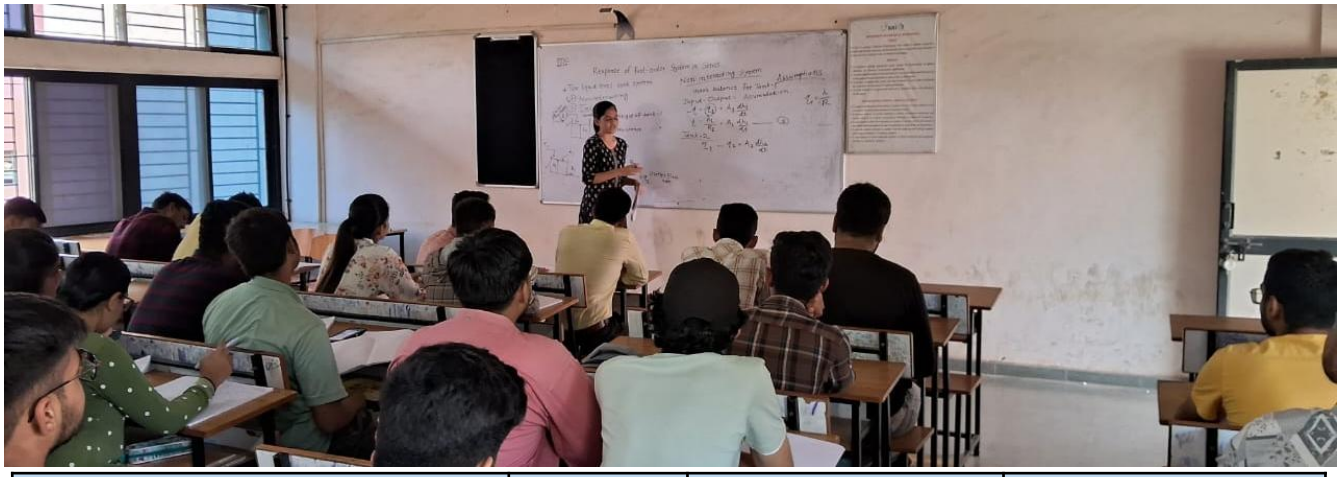
Sr. No	Semester	Expert Name, designation and organization	Topic
14	D.E. III	Mr. Sudarshan Lohar (Assistant Manager, BASF Dahej)	General awareness of Chemical industry
15	D.E. III	Mr. Sagar Kalwade (Arach GreenTechn Chemical, Owner)	Waste Water Treatment
16	D.E. III	Mr. Tushar Joshi (Asst. General Manager, Payal Polyplast Private Limited, Dahej)	Role of several departments in Chemical Industry
17	D.E. V	Smit Shah (Team Lead, Process Engineer, UPL-5, Jhagadia	Basics of Chemical Engineering
18	D.E. V	Mr. Riyaz Bhaldar (Manager, GoodEarth MineChem Pvt. Ltd., Jhagadia)	Manufacturing Process of $MnSO_4$
19	D.E. V	Bhavik Mahant (Research Scholar, IIT Madras)	Emerging opportunities of chemical engineers in research
20	D.E. V	Mr. Sudarshan Lohar (Assistant Manager, BASF Dahej)	Awareness of Chemical Industries

D.E. 5: Mr. Smit Shah from UPL Unit-5 delivering expert talk

D.E. 3: Mr. Sagar Kalwade delivering expert talk

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.

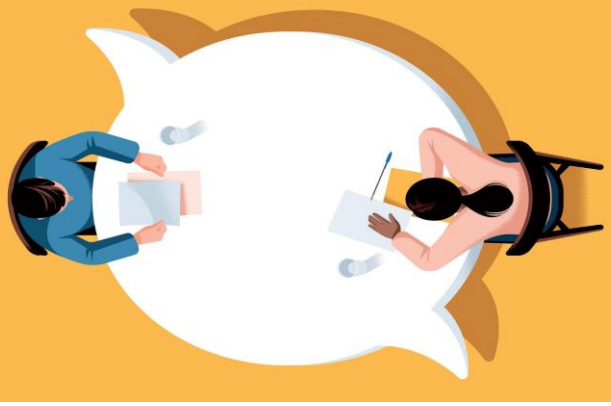


Name of Chemical Engg. students	Sem	Course Name	PLI Delivered in	
JAGRUTI CHAUHAN	ME-I	CAPS	BE	VII
PRATHAM GOYAL	ME-III	Biochemical Engg.	BE	VII
PRATHAM GOYAL	ME-III	AI in Chemical Eng.	BE	VII
BHAVYA PATEL	B.E. -III	Petroleum Refining	DE	V
JEELKUMAR MAKWANA	B.E. -III	Instrumentation	DE	V
PRITEE DIGHE	B.E.- III	Plant Economics	DE	V
KEYA PRAJAPATI	B.E.- V	Thermodynamics	BE	III
AAKASH MANDAL	B.E.- V	Fluid Flow	BE	III
ROOPAM DEBNATH	B.E.- V	Communication Skills	BE	III
PATEL MEET MANISHBHAI	B.E.- V	Fluid Flow	BE	III
VRUNDA PATEL	B.E.- V	Mathematics-III	BE	III
ROHAN SURTI	BE-VII	Plant Economics	BE	V
DIPALI KETANKUMAR PATEL	BE-VII	Mathematics-III	BE	III
VINAYAK SONAWANE	BE-VII	Energy Technology	BE	V
GUPTA AKSHAY CHANDRABHAN	BE-VII	Process Control	DE	V
GANDHI VIDHIT JIGNESHKUMAR	BE-VII	Polymer Science	BE	V

Continue

PEER LEARNING INITIATIVE

Name of Chemical Engg. student	Sem	Course Name	PLI Delivered in	
PATEL DHARMIK AASHISHKUMAR	Diploma V	Process Tech.	DE	III
MODI PRIT CHETANKUMAR	Diploma V	Stoichiometry	DE	III
JADAV HARSHKUMAR RAJESHBHAI	Diploma V	Stoichiometry	DE	III
MODI PRIT CHETANKUMAR	Diploma V	Thermodynamics	DE	III
LEESA CHAUHAN	Diploma V	Fluid Flow	DE	III
SAKSHI PANDEY	Diploma V	MO	DE	III
KRUTIK MACHHI	Diploma V	MO	DE	III
MODI PRITEE	Diploma V	Thermodynamics	DE	III
MACHHI KRUTIK	Diploma V	Fluid Flow	DE	III
KAYASTH JAY	Diploma V	Safety & Hazard	DE	III
JADAV HARSH RAJESHBHAI	Diploma V	Thermodynamics	DE	III
PRAJAPATI VEDANT	Diploma V	Stoichiometry	DE	III
YASH VANZA	Diploma V	Stoichiometry	DE	III
PATEL HERIK	Diploma V	Process Auxiliaries	DE	III
JEEL MAKWANA	Diploma V	Process Auxiliaries	DE	III



One to One (counselling) Sessions with students – Winter 2024

Meeting of B.E. Semester-5 students with Mr. Ashok Panjwani, President, UPL University

Meeting of Diploma Semester-3 students with Dr. Purvi Naik, Controller of Examination, UPL University

Meeting of Diploms Semester - 5 students with Dr. Omprakash Mahadwad, Dean – Engineering & CoE, UPL University

Meeting of B.E. Semester - 3 students with Dr. Alok Gautam, Dean – R&D, UPL University

An important and a flagship activity of conducting one-to-one meetings with students serve as a platform for personalized support, guidance, and improvement strategies tailored to individual student needs, contributing to the enhancement of overall performance within the academic environment.

RECENTLY SIGNED MoUs

MoUs signed during July – Nov 2024

Signing of MoU with Bhavya Pharma chem, Ankleshwar

Signing of MoU with Chevron Pharma pvt ltd, Ankleshwar

Signing of MoU with Element Chemilink Pvt Ltd, Ankleshwar

Meeting Principal of ITI, Ankleshwar

Meeting Principal of ITI, Hansot

UNIVERSITY EXAM RESULTS Diploma, B.E., M.E. Summer-2024

Sr. No	Semester	Total	Pass	Fail	% Pass
1	D.E. Semester-2	190	95	95	50.00
2	D.E. Semester-4	104	87	17	83.65
3	D.E. Semester-6	65	59	06	90.77
4	B.E. Semester-2	65	48	17	73.85
5	B.E. Semester-4	54	29	25	53.70
6	B.E. Semester-6	107	88	19	82.24
7	B.E. Semester-8	77	77	00	100.0
8	M.E. Semester-2	12	10	02	83.33
9	M.E. Semester-4	06	06	00	100.0

Top 3 from every class – Exam Summer 2024

Diploma Semester-IV

SPI – 10/10
CPI -9.94
VARSADA SHIV SURESHBHAI

SPI – 10/10
CPI - 9.88
PANDEY SAKSHI PAWAN

SPI – 10/10
CPI - 9.80
VANZA YASH C.

Diploma Semester-VI

SPI – 10/10
CPI - 9.96
DIGHE PRITEE S.

SPI – 10/10
CPI - 9.91
PATHAN VAJIDKHAN V.

SPI – 10/10
CPI - 9.61
PATEL RAJKUMAR M.

UNIVERSITY EXAM RESULTS
D.E., B.E., M.E.
Summer-2024

CHEMICAL ENGINEERING BRANCH

Top 3 from every class – Exam Summer 2024

B.E. Semester-IV

SPI – 10/10
CPI - 9.53
MANDAL AAKASHKUMAR R

SPI – 9.75/10
CPI - 9.54
RANA HARSHILSINH U

SPI – 9.5/10
CPI - 9.47
PATEL MEET M

B.E. Semester-VI

SPI – 9.96/10
CPI - 9.86
PATEL DIPALI K

SPI – 9.92/10
CPI - 9.73
GOHIL VANSH D

SPI – 9.92/10
CPI - 9.71
SURTI ROHAN D

B.E. Semester-VIII

SPI – 10/10
CPI - 9.56
RAJ ADITYASINH R

SPI – 10/10
CPI - 9.51
MODI NISARG A

SPI – 10/10
CPI - 9.47
SAINI UMESH

UNIVERSITY EXAM RESULTS
D.E., B.E., M.E.
Summer-2024

CHEMICAL ENGINEERING
BRANCH

Top 3 from every class – Exam Summer 2024

M.E. Semester-II

SPI – 9.83/10
CPI - 9.31
PRAJAPATI DEEPAKKUMAR

SPI – 9.78/10
CPI - 9.72
KAUSHIK VAIJAPURKAR

SPI – 9.44/10
CPI - 9.53
PATEL OM G.

M.E. Semester-IV

SPI – 10/10
CPI - 9.68
PATEL NIRMAL SURESHBHAI

SPI – 10/10
CPI - 9.46
PATEL DHRUV ANILBHAI

SPI – 10/10
CPI - 9.10
NASANE RENUKA RAVI

100% PLACEMENT OF STUDENTS
Chemical Engineering
(BATCH 2020-24)

For the Batch 2021-25 that will pass in May 2025:
8 candidates are placed with UPL Ltd.

(1) GANDHI BHARGAVKUMAR M
(2) GOHIL VANSH DEVENDRABHAI
(3) PATEL DHRUV
(4) PATEL VISHAL KUMAR
(5) PATEL YAX KAMALBHAI
(6) PAWAR HARSHAL
(7) SURTI ROHAN
(8) BAROT JAY SURESHKUMAR

EVENTS

National Conclave – 6th July 2024

On July 6th, 2023, a team comprising five faculty members and four students participated in the national conclave titled "Industry Sustainability – Energy Perspective: A Mission to Viksit Bharat @ 2047" held at Bharuch. This prestigious event provided an excellent platform for our faculty and students to enhance their knowledge and gain insights from expert sessions.

EVENTS

National Conclave – 6th July 2024

Cont…

Our students had the unique opportunity to interact with leading experts in the field and to learn directly from esteemed Emeritus Professor (Padma Shri) G. D. Yadav, whose contributions to academia and industry are widely recognized. A moment of pride for our university was the recognition of our President, Shri Ashok Panjwani, who was honored during the inaugural session for his significant contributions to the professional society. His leadership and dedication continue to inspire the entire university community.

Quiz Competition on 5S - 22nd July 2024

5S quiz competition was organized on July 22, 2024, with the aim of promoting awareness and understanding of the 5S methodology.

List of Winners

Winner	Enrolment No.	Name of Student	Semester
First	230102301003	Jay Modi	V-BE
Second	230102101049	Patel Zeelkumar B.	III-BE
	230101101024	Dev. M. shah	III-DE
Third	230102101044	Patel Parth R.	III-BE
	230102101023	Shubham Modi	III-BE

EVENTS

Eco-Friendly Ganesha Idol-Making Competition: Promoting Sustainability and Creativity

To foster environmental responsibility, promote sustainability, and enhance artistic skills among students, the IIChE Students Chapter of SRICT organized an eco-friendly Ganesha idol-making competition on 6th September 2024 for the students of UPL University of Sustainability. Participants enthusiastically created idols of Lord Ganesha using eco-friendly materials such as clay, leaves, and recycled paper.

EVENTS

Teacher's Day Celebration

The IIChE Students' Chapter-SRICT celebrated Teachers' Day in a unique and meaningful way by organizing a variety of events for both faculty and students. The activities included PLIs, IV, and EL, providing opportunities for interaction and engagement. This event featured engaging activities that brought together teachers and students, fostering a spirit of camaraderie. Students expressed heartfelt gratitude to their teachers and staff, acknowledging their invaluable contributions.

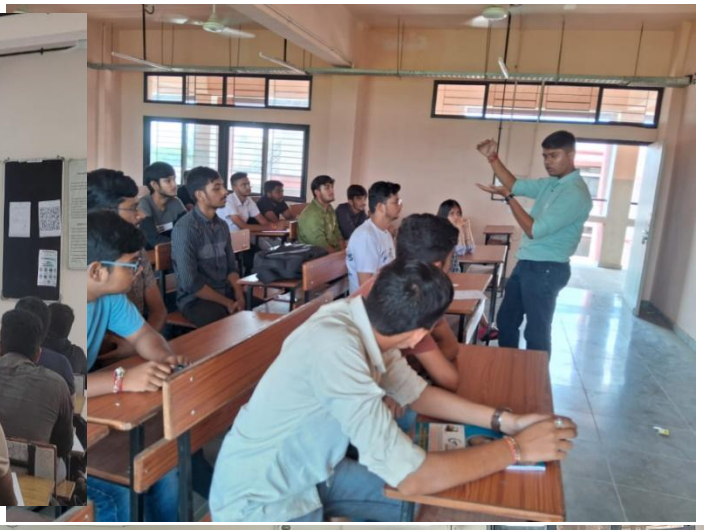




EVENTS

Teacher's Day Celebration: Peer-Led Initiatives

As part of the Teacher's Day celebration on 5th September, the first two lectures were conducted by peers. Like last year, a total of 17 PLIs were held to mark the occasion.



EVENTS

One-Day Hands-On Training Program on Process Simulation

The Department of Chemical Engineering, through the IIChE SRICT Students Chapter, organized a one-day hands-on training on process simulation using DWSIM and CAPE OPEN on 4th October for third- and fourth-year chemical engineering students. The program, attended by students from nine institutions including GEC Bharuch, GEC Valsad, PPSU, and GSFC, aimed to foster collaboration and practical learning.

EVENTS

One-Day Hands-On Training Program on Process Simulation

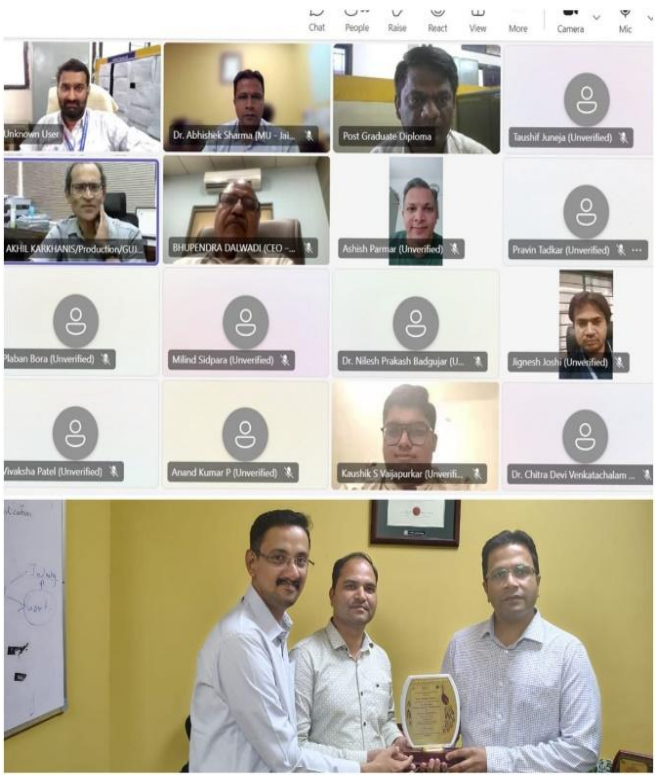
Cont..

The session was inaugurated by Dr. Krunal Suthar, with distinguished guests Dr. Hemant Balsora, Faculty IIChE Coordinator, and Mr. Dhruv Patel, alongside active student volunteers. The event was sponsored by Nigam Group of Industries and Welkin Engineering, Ankleshwar. Participants gained hands-on experience in process simulation, focusing on fluid flow, heat transfer, and thermodynamics. The valedictory session was attended by Prof. Dr. Shrikant Wagh, Prof. Dr. Snehal Lokhandwala, Prof. Dr. Omprakash Mahadwad, and Mr. Hitesh Modi, whose insights highlighted the value of such programs in bridging academia and industry.

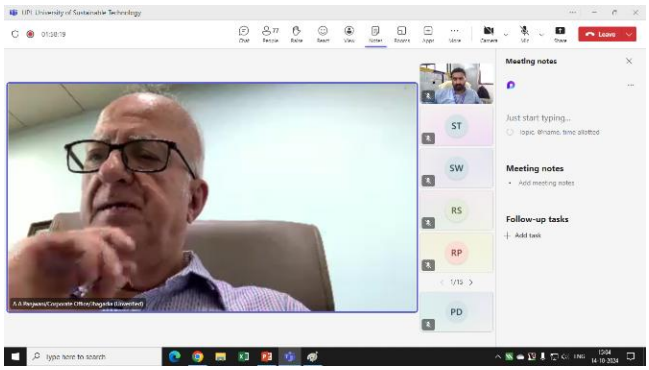
One-week Online Faculty Development Program on Process Optimization

The program was inaugurated by Hon. Provost Prof. Shrikant Wagh, with keynote addresses by Shri S. I. Thakar, IIChE National President, and Shri Ashok Panjwani, University President.The sessions featured distinguished speakers:

Day 1: Dr. Rakesh Sinha (UPL University)
Day 2: Dr. Ratnadip Joshi (MIT Pune)
Day 3: Dr. Milind Joshipura (Nirma University)
Day 4: Dr. Vivek Dua (University College London)
Day 5: Dr. Abhishek Sharma (Manipal University, Jaipur)



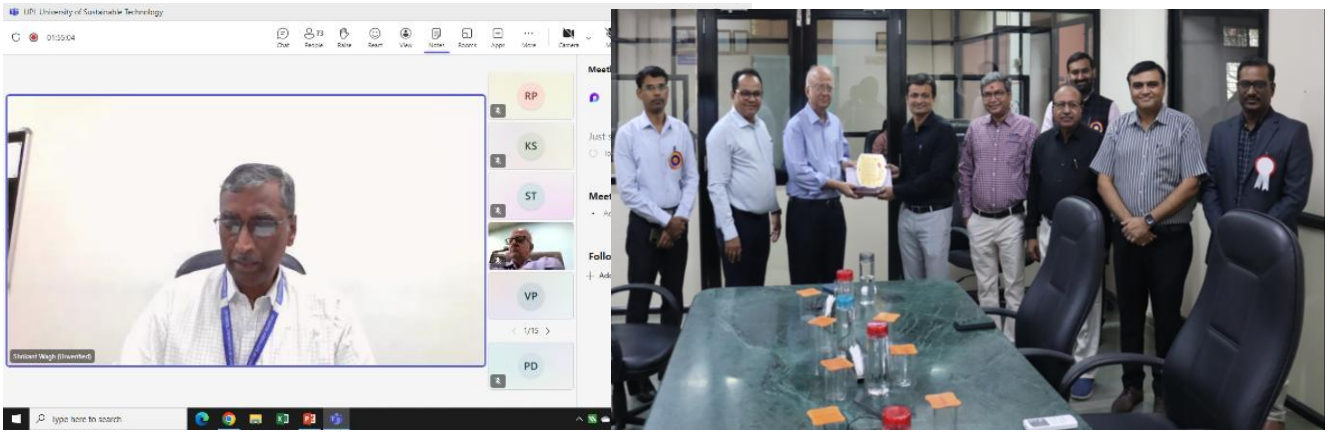
The program saw active participation from 135 attendees representing 65 organizations, who appreciated the interactive and insightful sessions.

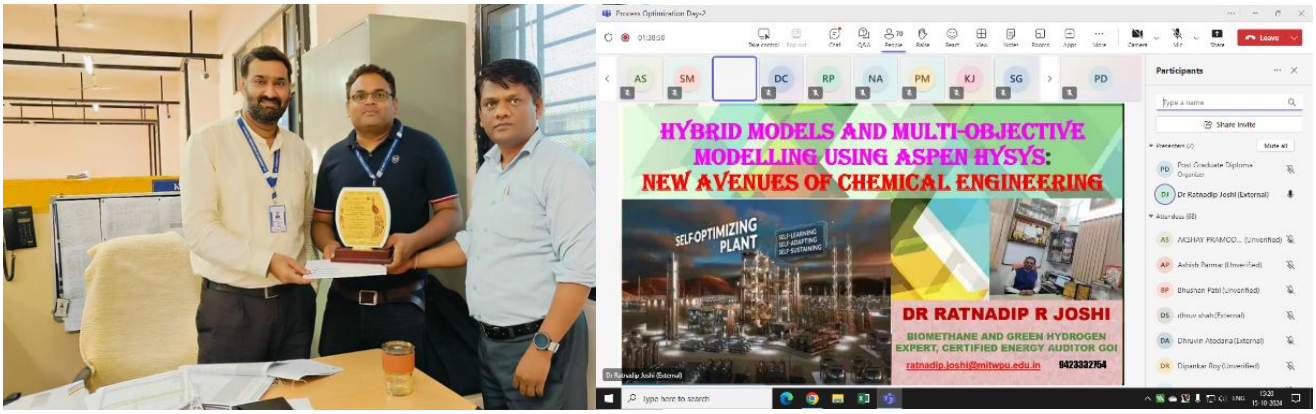


One-week Online Faculty Development Program on Process Optimization

Cont…

The valedictory session featured an address by Prof. Saumyen Guha, followed by concluding remarks from Shri B. D. Dalwadi, Chairman of IIChE-ARC.





The program was successfully coordinated by Mr. Sunil Badgujar, Assistant Professor, along with Ms. Renuka, Dr. Hemant Balsora, and other department members.

EVENTS

One-day seminar on Honing Your Research Skills

Chemical Engineering Department in collaboration with the IIChE, RAC, and IQAC organized one-day seminar on Honing Your Research Skills for PG and PhD students today. It was organized on 16th Nov.

The seminar consisted of 6 sessions delivered by Prof. Shrikant Wagh, Dr. Alok Gautam, Dr. Krunal Suthar, Dr. Swapna Panda, Dr. Rakesh Sinha, and Dr. Sandip De. Topics covered included the importance of graphical analysis, selecting an appropriate journal, techniques for writing various sections of a paper, reference management tools, data analysis, and measuring uncertainties.

Other Activities

5S Orientation to newly admitted students – 29th July 2024

The Department of Chemical Engineering conducted a 5S Orientation for newly admitted students to introduce them to the principles of 5S—a method for organizing workspaces and improving efficiency. The sessions were delivered by department 5S coordinator – Mr. Mitul Parikh along with Mr. Nirmal Patel.

The goal of the session was to encourage students to maintain a clean, organized, and efficient environment in both academic and professional settings.

Other Activities

Departmental Meeting with K. Srivatsan Sir – 23rd July

Chemical Engg. faculty and staff members were introduced, and their brief profiles were presented. The syllabus was discussed at length. Mr. K. Srivatsan consented to be present during the next online BoS (Board of Studies) meeting.

Conference @CSIR - CSMCRI

Mr. Subhash Mawaskar, M.E., Chemical Engineering student, presented a poster under the guidance of Dr. Swapna Rekha Panda at an international conference on Materials and Membrane for Water and Energy at CSIR-CSMCRI.

Other Activities

VISIT TO PLASMA EXHIBITION – 11th July 2024

B.E. Chemical Engineering students of Semester-5 visited the PLASMA EXHIBITION-2024 at Smt. P. D. Shroff Sankardeep Vidhyalay, Ankleshwar on 11th July 2024. They explored various experimental miniatures demonstrating plasma generation and interacted with experts from the Institute of plasma Research, Gandhinagar.

Other Activities

Parents Teachers Meeting was organized for newly admitted CtoD & DtoD Students on 31st August 2024

Student Start-up and Innovation (SSIP) Orientation Session

Dr. Ravindra Kanawade, SSIP department coordinator delivered orientation session to semester-1 students of BE and Diploma, Chemical Engineering on 26th July 2024

Other Activities

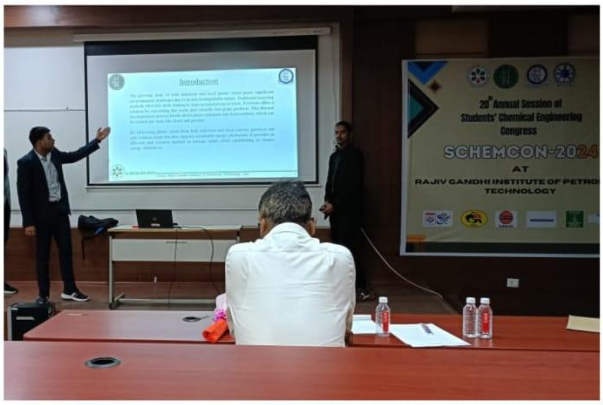
ABHYUTTHAN 2024

Department of Chemical Engineering organized **ABHYUTTHAN-2024**", its prestigious **Academic Awards Ceremony**. A total of 237 and 325 students were awarded in the morning session and afternoon session, respectively. Shri Gaurav Chandra, unit head from Gujarat Guardian Ltd. And Shri Sushil Kumar, former President of Reliance Industries Ltd. graced the occasion as the Chief Guest of the program in presence of hon. President of University and other esteemed dignitaries.

Other Activities

IIChE Students Shine at SCHEMCON 2024 with Innovative Research Presentations

Eight Chemical Engineering students from the IIChE Students' Chapter of UPL University presented their research work at the IIChE National Conference, SCHEMCON 2024, held on 20th – 21st September 2024 at RGIPT, Amethi. Their research topics included green hydrogen, carbon capture, converting plastic waste to energy, and the application of artificial neural networks in chemical engineering.During the conference, the students also had the opportunity to meet Prof. G. D. Yadav from ICT Mumbai and Mr. S. I. Thakar, the National President of IIChE.



Other Activities

Internship Presentation of BE VII students

On November 13th – 14th, 2024, BE 7th Semester students successfully presented their project work. The presentations showcased their practical skills, industry insights, and personal growth from internships. Students highlighted their reports, challenges faced, and solutions implemented, demonstrating a strong grasp of real-world applications.

Internship Presentation of DE V students

The presentation was organized for the D.E. Semester-5 students in the month of August. During the session, they showcased the knowledge and skills acquired during their 14-day industrial training internship.

Other Activities

Project Reviews: Post Graduate Student (M.E. III)

The project reviews for M.E. Semester-3 students were conducted three times during the semester to assess their progress and provide constructive feedback. During these sessions, students presented their ongoing work, showcasing their research findings, methodologies, and future plans. Each review session offered an opportunity for students to engage in in-depth discussions with departmental experts, who provided valuable insights and suggestions to enhance the quality and direction of their projects. The following is a glimpse of the project review conducted on 15th Sep. 2024

Other Activities

Global Summit on Process Safety

Dr. Ravindra Kanawade *and Dr. Omprakash Mahadwad*, along with the UPL team, participated in the 8th CCPS (Center for Chemical Process Safety) Global Summit on Process Safety held in Mumbai from November 25th – 27th, 2024. Experts in process safety shared the latest trends and insights during the sessions.

Dr. Dinesh K. Pandey visited ITI Vagra on November 28, 2024, to address students from various sections. He discussed their role in environmental conservation and explored job opportunities available after completing a diploma or BE.

Congratulations to all the graduates of the Master's in Chemical Engineering program on this special occasion of the 2nd Convocation!

Other Activities

One day Technical Symposium on Distillation

The department of Chemical Engineering, UPL University of Sustainable Technology organized a one-day symposium on “Downstream Processing: Separation & Purification of Biological Components using Distillation” on 30th November 2024. The event was hosted by the Department of Chemical Engineering under the IIChE–SRICT Student Chapter and drew over 100 participants, including industry professionals, academicians, researchers, and postgraduate students. Representatives from leading companies such as GFL, Reliance, UPL Ltd., Sun Pharma, Glenmark, Bharat Rasayan, GACL, GNFC, Heubach Colour, Element Chemilink, Apex Pharma, BEIL, Gharda Chemicals, GIL, Coromandel, ETL, Piramal Pharma, Meghmani Industries, JB Pharma and few other attended the event.

Prof. (Dr.) Shrikant J. Wagh inaugurated the symposium with a welcome address, setting the tone for insightful discussions. Shri B. D. Dalwadi emphasized the significance of the event by sharing real-world examples. Shri Ashok A. Panjwani (President, UPL University) shared the inspirational stories of Dr. Gharda. The Chief Guest, Shri Uttam Kumar Khatri (VP, Gharda Chemicals), shared his experiences and encouraged us for hosting such an engaging and relevant event.

One day Technical Symposium on Distillation

Cont…

The technical sessions were delivered by distinguished experts, including Dr. Sanjay Chavan (Avishkar Agro), Mr. Subrat Satpathy (Cohance Life Sciences), Mr. Govind Thombre (UPL Ltd.), and Dr. Nilesh Mali (CSIR-NCL), who presented advancements in distillation and separation technologies. Sessions were highly interactive and received widespread appreciation from the participants.

Certification Course on Chemical Plant Operator

(Six-month course – Every Saturday)

The first batch of the Certification Course for Plant Operators, comprising 28 participants, was successfully completed. The final exam was conducted in October, preceded by a mock training session. A mock MCQ test and viva were organized for the candidates, with faculty members from various departments involved in teaching the course conducting the mock viva.

First batch of Plant Operator Course – appearing for mock test

Commencement of Second Batch of Plant Operator Course

The second batch of the Plant Operator Course has commenced with a total of 31 participants. The 6-month program, which began on 21st September 2024, will cover topics such as process safety, unit operations, soft skills, basic maintenance, and utility fundamentals

Certification Course on Chemical Plant Operator

(Six-month course – Every Saturday)

Testimonial:
The Impact of UUST's (plant operator)Training Program

My name is Akshay Kumar Ray. I successfully completed the Plant Chemical Operator Course at UPL University of Sustainable Technology (UUST). This course significantly enhanced my technical skills, industry knowledge, and problem-solving abilities. It provided me with a strong foundation in both the practical and theoretical aspects of plant operations and industry standards, preparing me to excel in my career.

Akshay Kumar Ray

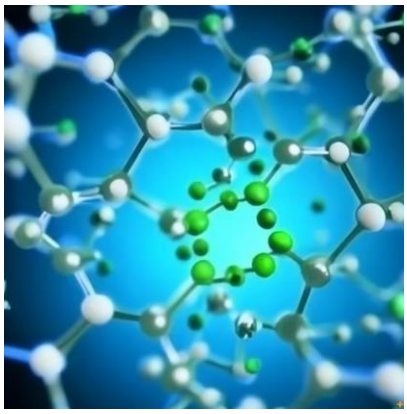
Testimonial of Growth:
The Transformative Learning at UUST

Meetkumar Girishbhai Mistry

My name is Meetkumar Girishbhai Mistry, and I am proud to have successfully completed the Plant Operator Course at UPL University of Sustainable Technology (UUST). This course enriched me with valuable technical knowledge, practical skills, and hands-on experience in plant operations. I am deeply grateful for the faculty's guidance and the excellent learning opportunities at UUST. This accomplishment inspires me to continue my academic journey and advance in my career.

Catalyst Development: A Key to Sustainable Chemical Industry Growth

By Dr. Dinesh Pandey, Asst. Professor, Chemical Engineering



Catalyst play a crucial role in improving the yield and selectivity of desired product more likely through an energy efficient reaction pathway. As result separation in downstream becomes easier and cost effective and thereby improve the overall economy of the chemical plant/industry.

Catalyst is not only potent enough to provide higher product yield but also facilities moderate reaction conditions of temperature and pressure and hence reduce the design cost and operational hazards of conducting a chemical reaction. The large no of reactions carried out in different chemical industries such petrochemical, fertilizer, polymer, agrochemicals, etc. involves different types of catalysts based on noble metals such as Ru, Rh, Au, Ag, Pt, Pd, and non-noble metal Cu, Ni, Fe, Zn, etc.

Non noble Therefore, catalyst are found to be effective, however these are not mush stable under harsh reaction conditions, moreover noble metal-based catalysts are active and stable, but they are costly. Therefore, designing a highly active, selective, stable, cost effective and environmentally benign catalyst is a big challenge before the researchers.

Further, most of Indian chemical industries are dependent on imported catalysts. Therefore, developing indigenous catalyst with said characteristics are always desirable. Catalyst R&Ds, national institutions and industries are now coming forward to develop our catalysts.

VINAYAK SONAWANE
BE CHEMICAL ENGINEERING
(SEM-7)

INTERNSHIP CHRONICLES

As a final-year chemical engineering student, I had the privilege of completing a 2-month summer internship at ONGC Hazira, one of India's largest oil and gas companies. This experience provided me with a comprehensive understanding of the oil and gas industry's operations, challenges, and best practices.

During my internship, I gained valuable insights into the gas processing plant's operations, including the Gas sweeting unit , Gas dehydration unit (GDU), Dew point depression unit (DPD), Liquified petroleum gas(LPG unit)and fuel gas system. I observed the importance of safety protocols, emergency response planning, and environmental regulations in the industry. I gained valuable industry insights, developed essential skills, and built a professional network. This experience has instilled in me a passion for the oil and gas industry, and I look forward to applying my skills and knowledge in future endeavors.

Production of fuel grade products through pyrolysis of Industrial plastics waste

By Aakash Mandal, Kaushal Sonagra, Harsh Prajapati, Karan Manavadariya
B.E. Semester-V, Chemical Engg.,UPL University

Plastics play a crucial role in modern life due to their versatility, durability and wide range of applications. Despite their advantages, plastic waste is a major environmental issue. Plastic waste management can be practiced in an effective manner by converting plastic waste into useful fuel grade products by pyrolysis. Pyrolysis of plastic waste to fuel is an innovative process that converts plastic materials to useful fuels-oil, gas and char. This process involves heating plastic waste at high temperatures in an oxygen free environment causing the long polymer chains breakdown into shorter hydrocarbon molecules.

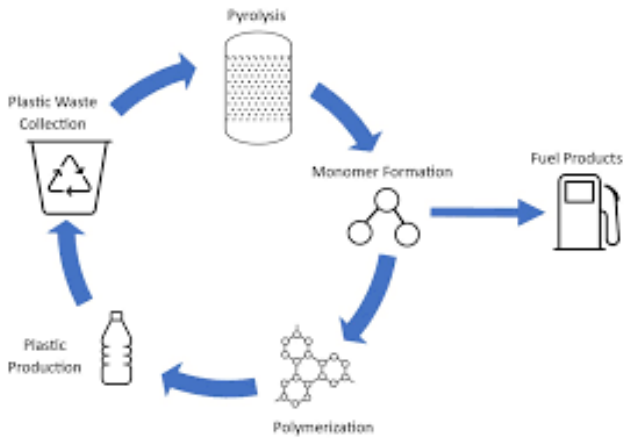


Fig. Plastic Recycling Via Pyrolysis.
Source:
http://large.stanford.edu/courses/2023/ph240/lajoie1

In the present work, Industrial waste plastics are collected and after pretreatment , pyrolysis waste plastic is carried out in fixed bed reactor in the temperature range of 300-450 °C, heating rate 10 °C/min with 5 LPH N2 flow rate. The yields and characterizations of products obtained from pyrolysis experiments were thoroughly investigated. The feedstock used in this investigation yielded up to 60% oil, 25% gases, and 15% by weight char.

References:

1. Hemant Kumar Balsora, Kartik S, Jyeshtharaj Bhalchandra Joshi, Abhishek Sharma, and Anand Gupta Chakinala, Artificial Neural Network-Based Models for the Prediction of Biomass Pyrolysis Products from Preliminary Analysis, Ind. Eng. Chem. Res. 2023, 62, 36, 14311–14319

Kinetics of CO2 capture and syngas production via reforming

Patel Meet Manishbhai, Jay Sandipbhai Kayasth, Roopam Jiban Debnath
B.E. – V, Chemical Engineering

Methane dry reforming (DRM) is an essential process in the field of sustainable chemical engineering, where methane (CH_4) and carbon dioxide (CO_2) are converted into syngas, a mixture of carbon monoxide (CO) and hydrogen (H_2). CO2 is captured for the atmosphere using the Direct Air Capture (DAC) technology. DRM operates at high temperatures between 700°C and 1100°C, DRM not only provides a valuable feedstock for chemical production, including methanol and synthetic fuels, but also helps in mitigating greenhouse gas emissions by utilizing CO_2. However, one of the significant challenges in DRM is the deactivation of catalysts due to carbon deposition, which can reduce the efficiency and longevity of the process.

This project aims to explore and develop robust catalysts capable of withstanding the high-temperature conditions and resisting carbon build-up, thereby ensuring the sustainability and industrial viability of DRM. By addressing these challenges, the project seeks to enhance the efficiency of syngas production while contributing to environmental sustainability through the reduction of CO_2 emissions. This research holds the potential to advance industrial applications of DRM, promoting cleaner energy production and offering significant environmental and economic benefits. The findings of this project could play a crucial role in the future of sustainable chemical processes.

Article Presented in SCHEMCON 2024

IIChE-SCHEMCON 2024
20th – 21st September 2024

Artificial neural network-based model for prediction of biomass pyrolysis kinetics

Vidhit Gandhi, Dipali Patel, B.E. – VII, Chemical Engineering

Biomass is a potential renewable and carbon-neutral source can be used for sustainable energy generation. Biomass typically have a heating value in the range of 15-20 MJ/kg, which indicates the potential for their valorization. Pyrolysis is a promising thermochemical conversion technology for the extraction of bioenergy and valuable chemicals from the biomass in the form of bio-crude, gas and bio-char that have wide range of applications. The kinetics play a great role in product distributions and is very useful in the selection and design of reactors and for optimizing process parameters for large-scale pyrolysis units. To investigate pyrolysis kinetics, thermogravimetric analysis (TGA) is mainly utilized, in which weight loss data is subjected to intensive calculation to estimate the kinetic parameters. Given the economic implications, it is vital to theoretically investigate the kinetics of biomass pyrolysis using mathematical models before conducting actual experiments. Artificial neural networks (ANNs) are useful for estimating the non-linear relationship between input and output data because they can approximate arbitrary nonlinear functions. Furthermore, ANNs do not require a mathematical definition of the processes involved, and their learning and adaptability allows the systems to update themselves.

In this work, an ANN model is developed using MATLAB NN toolbox for the prediction of kinetic parameters (activation energy, frequency factor and order of reaction) for the thermal decomposition of biomass. The wt. % of cellulose, hemicellulose and lignin of different biomass are considered as input of the network which are obtained from published literatures. The ANN model is trained with Levenberg-Marquardt algorithm as the training function and tansig-purelin as the network transfer function. The network is trained for different number of neurons, and it has been observed that the network predicting the best result when neurons is 22, 18 and 29 for Pre-exponential factor, activation energy and order of pre-exponential respectively. Results shows that the ANN methodology precisely predicts experimental data with high correlation coefficient as 0.92, 0.91, and 0.87 for pre-exponential factor, activation Energy and order of reaction respectively.

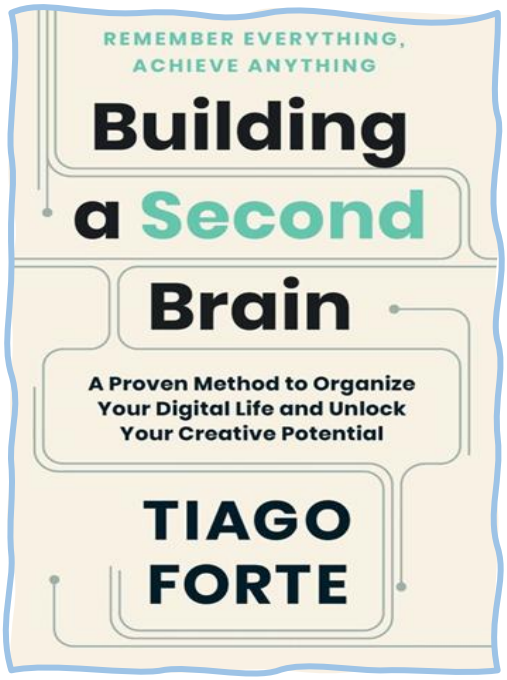
Note: The work was presented during SCHEMCON by students under the guidance of Dr. Hemant Balsora and Mr. Kartik Iyer

Book Recommended: Simplify Life with Building a Second Brain

- Chintan Modi, Asst. Professor, Chemical Engineering Department

Reading this book can help anyone discover the full potential of your ideas and translate what you know into more powerful, more meaningful improvements in your work and life by Building a Second Brain.
If you are in your 20's consider reading this book!

Building a Second Brain by Tiago Forte



Practical Lessons from this book to implement in your life

1) CODE Method (Capture, Organize, Distill, Express)

This is the core framework for managing information where you capture valuable insights, organize them systematically, distill them to their essence, and express them through creative work.

2) Digital Gardens.

Your digital notes should be treated like a garden that grows over time, not just a storage space. Regular cultivation, pruning, and organization help ideas mature and connect.

3) Progressive Summarization.

Instead of processing all information at once, highlight and summarize content in layers over time. This makes the review more efficient and helps surface the most important ideas.

4) Projects Over Categories

Organize information based on active projects rather than abstract categories. This ensures your knowledge system serves practical purposes rather than becoming a theoretical archive.

CHEMICAL ENGINEERING MAGAZINE ARTICLES

A Journey from M.E.to Lecturer

Myself Renuka Ravi Nasane, and I am honored to share my academic journey with you. I successfully completed my Master of Engineering in Chemical Engineering at UPL University, Ankleshwar, Gujarat, with the invaluable support and guidance of the university's esteemed faculty. Their mentorship played a pivotal role in my academic accomplishments, and I am truly grateful for their encouragement.

As part of my ME program, I undertook a research project titled Experimental Study of Plastic Pyrolysis on Auger Reactor, under the expert supervision of Dr. Hemant Balsora. This project focused on investigating innovative methods for converting plastic waste into valuable by-products through pyrolysis. The research not only deepened my understanding of sustainable chemical engineering practices but also equipped me with the technical expertise to address real-world environmental challenges.

After completing my ME, I was honored to join UPL University as a lecturer. This opportunity has allowed me to contribute to the same institution that played a significant role in shaping my career. It is immensely fulfilling to mentor students and inspire them to excel in their academic pursuits.

I extend my heartfelt gratitude to UPL University for providing a platform for my personal and professional growth, and I look forward to contributing to its legacy of excellence.

- Ms. Renuka Nasane, Lecturer, Department of Chemical Engineering

एक युग के निर्माता

कुंदन जैसा था जिनका ध्यान,
रसायन अभियांत्रिकी का मिलता था जहा सारा ज्ञान,
कृषि और विज्ञान को नई राह दिखाने वाले।
आदर्शों और मूल्यों से भरा हे जिनके जीवन का सार,
सपनों को हकीकत में
वचन को कर्म में
और कर्म को जिसने श्रम में बदला हे।
वो ही पद्मश्री " श्री के की घरड़ा" हे
याद रहेगा हमेशा आपका हर योगदान।
मंत्र तुल्य शब्दो का होगा सदा गुणगान।
आपके व्यकतिव्य का हस्ताक्षर हर किसी में मन पर हे,
आपकी प्रेरणा से जीवन होगा हमारा सदा प्रवाहवान।

- कृणाल सुथार
(आलोचक: हेमंत बलसोरा)

ALUMNI Column

Mr. Deep Raj Patil, a 2017 alumnus and Process Engineer at Aarti Industries, delivered two guest lectures on 30th Sep and he also generously donated several chemical engineering books to our Gharda Technical Library.

Dr. Krunal Suthar and Mr. Girish visited UPL Ltd. Unit-12 for a program ‘career leap’. They also held a meeting with alumni working at UPL Ltd. Unit-12 (Om, Vishmay, and Pratham Dua) to understand topics they wish they had learned as students while they pursued BE with us. They suggested topics such as - reading P&IDs, scale-up concepts, project management, and process economics in detail.

ALUMNI Column

I'm excited to share my journey, which began as a Chemical Engineering student at SRICT's 2015-19 batch and has led me to Canada, where I'm building a career in Quality Management.

Currently, I ensure processes and products meet the highest industry standards. My experiences at Aarti Industries Ltd and Alkyl Amines Chemicals Ltd provided valuable industry insights before I pursued further education in Canada. I completed courses in Process Quality Engineering and Project Management, which sharpened my skills in quality control and project management. Reflecting on my time at SRICT, I appreciate the strong foundation it provided, from academic rigor to the invaluable support from professors, administration, and Panjwani Sir. Initiatives like PLI and 5S shaped my technical and managerial abilities, preparing me for the challenges I face today.

As I continue my professional journey in Canada, I often reflect on the lessons and friendships I gained at SRICT. I am grateful to all those who have supported me along the way.

- *Nisarg Dabhi, Admission batch 2025-19*

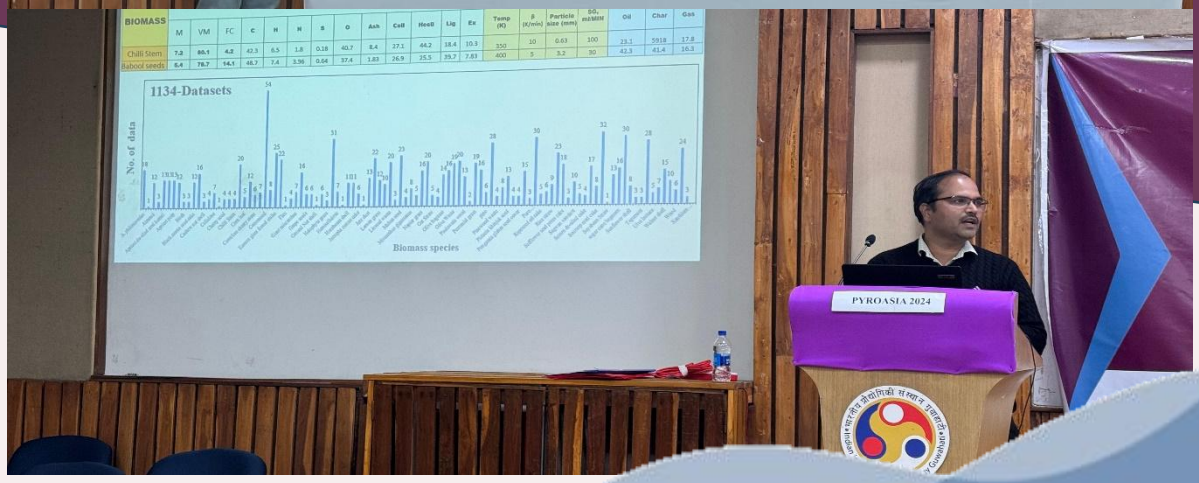
I am pleased to share my journey from being a Chemical Engineering student at SRICT (2021–2024 batch) to becoming a 'Graduate Trainee' at Lanxess India.My time at SRICT played a pivotal role in shaping my career.

The support, guidance, and motivation from the department, administration, and especially Panjwani Sir made a significant difference during this period.The rigorous course structure, along with initiatives like PLI, 5S, and various co-curricular and extracurricular activities, provided a strong foundation and prepared me for professional challenges.The learnings, experiences, and challenges I faced during this time have shaped my skills and confidence, helping me achieve my goals.I am truly grateful to everyone who has been part of this journey and supported me along the way.

- *Vishwam, Admission batch 2021-24*

Dr. Hemant Balsora Wins Best Presentation at Pyrolysis Symposium

Dr. Hemant Balsora from the Chemical Engineering Department has been awarded the Best Oral Presentation at the 4th International Symposium on Analytical and Applied Pyrolysis, held at IIT Guwahati on November 28–29, 2024.He presented his research on "Prediction of Biomass Pyrolysis Product Yield Using Artificial Neural Network-Based Machine Learning Models."



Faculty Success Stories: Mastery in Aspen and Energy Technologies

Ms. Shraddha Pandya, Lecturer in the Chemical Engineering Department at UPL University of Sustainable Technology, successfully completed a 12-week NPTEL Certificate Program on "Aspen Plus Simulation Software" from July to October 2024.


Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

SHRADDHA GAURANGKUMAR PANDYA

for successfully completing the course

Aspen Plus® Simulation Software - A Basic Course for Beginners

with a consolidated score of 88 %

Online Assignments	20.31/25	Proctored Exam	67.35/75

Total number of candidates certified in this course: 555

Jul-Oct 2024

(12 week course)

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

Indian Institute of Technology Guwahati

swayam

Roll No: NPTEL24CH71S852700271 To verify the certificate No. of credits recommended: 3 or 4


Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

HEMANT KUMAR BALSORA

for successfully completing the course

Energy Conversion Technologies (Biomass and Coal)

with a consolidated score of 70 %

Online Assignments	22.5/25	Proctored Exam	47.25/75

Total number of candidates certified in this course: 235

Jul-Sep 2024

(8 week course)

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

Indian Institute of Technology Guwahati

swayam

Roll No: NPTEL24CH48S147200013 To verify the certificate No. of credits recommended: 2 or 3

Dr. Hemant Kumar Balsora, Assistant Professor in the Chemical Engineering Department at UPL University, successfully completed an 8-week NPTEL Certificate Program on "Energy Conversion Technologies (Biomass and Coal)" from July to September 2024.

Glimpse of Chemical Engineering Students participating and winning Various Sports Events

Chemical Engineering Team Wins Gold at ACCQC 2024

The team *Chemozale* — Chemical Engineering students Vrunda Patel, Deepak Singh, and Dipali Patel—secured the Gold position at the **12th Convention on Quality Concepts (ACCQC 2024)** organized by QCFI Ankleshwar Chapter on September 21, 2024.

Dr. Hemant Balsora Honored with Ph.D. at Manipal University Convocation

The Department of Chemical Engineering is proud to announce that Dr. Hemant Balsora has been conferred with a Ph.D. degree during the convocation ceremony held at Manipal University on 20th Oct 2024, Dr. Balsora's research focused on the topic "Kinetics and Product Distribution of Biomass Pyrolysis Using Analytical and Machine Learning Approach". His work delved into the intricate mechanisms of biomass pyrolysis, combining traditional analytical methods with modern machine learning techniques to enhance the understanding and prediction of pyrolysis kinetics and product outcomes.

UPL University Cadets Shine at CATC Camp

Keya Prajapati, Aakash Mandal, and Sunil Singh showcased their talents at the CATC camp in Rajpipla. Keya took the spotlight as the contingent commander, leading over 300 cadets and proudly representing UPL University in the drill and parade competition. She was nominated for the prestigious Best Cadet award, an incredible recognition of her leadership skills.

Meanwhile, Aakash Mandal shined in the debate competition, emerging as a winner and bringing pride to the university. Their achievements at CATC camp are a testament to their dedication and excellence in NCC activities.

Advancing Nanotechnology: Sunil Badgujar's Presentation at GOLD-CT 2024

Mr. Sunil Badgujar, Assistant Professor in the Chemical Engineering Department, presented his Ph.D. research titled "Ultrasound Assisted Coprecipitation Synthesis of Metal Oxide Nanoparticles" at the Second International Conference on "Global Opportunities for Latest Developments in Chemistry and Technology" (GOLD-CT-2024). The conference was held at Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon, on September 18-19, 2024. The event featured 248 poster presentations and 67 spoken presentations.

RECENTLY PUBLISED TECHNICAL ARTICLES (Jul – Nov 24)

Sr. No.	Article detail	Author
1	Debromination of Pyrolytic oil from waste printed circuit boards by catalytic thermo chemical reactions with Ca(OH)2 and ZSM-5, Biomass and Bioenergy, Volume 190, November 2024, 107382	**Alok Gautam**, Shina Gautam, Vaibhav Pandere
2	Detailed analysis of downdraft gasifier using different parameters for biomass gasification: a review, EMERG: energy. environment. efficiency. resources. globalization, 2024, vol 10, issue 1, p94	Contractor Endrick; Mehta, Kushal; **Gautam Alok**; Thattil Aditi, Gautam, Shina
3	Estimation of density and viscosity of deep eutectic solvents: Experimental and machine learning approach, Asia-Pacific Journal of Chemical Engineering, Volume19, Issue6, November/December 2024, E3151	**Dhruv Patel, Krunal J. Suthar, Hemant Kumar Balsora, Dhara Patel, Swapna Rekha Panda**, Nirav Bhavsar
4	Current Status and Challenges in the Commercial Production of Polyhydroxyalkanoate-Based Bioplastic: A Review, Processes 2024, 12(8), 1720	**Alok Gautam**, Shina Gautam, Juily Pawaday, Rekha Karshanbhai Kanzariya and Zhitong Yao
5	Blown Film Extrusion Process for Polybags: Technical Overview and Applications, Advances in Chemical Engineering and Science, 14, Oct 2024, 188-201	**Badgujar, S.,** Asthana, S., **Kanawade, R., Suthar, K**., Solanki, A., Nagaraj, K., Bilkhu, M.S., Sutar, H. and **Panda, S.R.**
6	The promise of Trichoderma formulations: insight from bibliometric analysis, Studies in Fungi 9: e014, 2024	**Panda SR,** Mishra KK, Kumar V, Wagh AK

Student's Corner

Harsh Singh Shines at National Level Competitions in Chemical Engineering

Harsh Singh, B.E. Sem-5 participated in 7 camps and successfully defeated 5 groups from Gujarat, including Vadodara, Rajkot, VV Nagar, Jamnagar, and Ahmedabad. He also represented Gujarat state and the Baroda group at the prestigious Thal Sainik Camp (TSC) held in Delhi.

In NCC, the Thal Sainik Camp (TSC) and the Republic Day Camp (RDC) are considered the most significant camps held at the national level in Delhi. Harsh's achievements highlight his dedication and exemplary performance in these competitive events.

7-Day NSS Camp Held at Thava Village

A 7-day NSS camp was successfully conducted at Thava Village, focusing on community development and social awareness. The program was graced by the esteemed presence of trustee members of Shree Gram Kelvani Mandal and Principal Mrs. Ranjanben Vasava, who appreciated the participants' efforts. **Yash**, a dedicated student from Chemical Engineering (B.E. Semester-7), actively participated in the camp alongside **Dr. Dinesh Pandey**, contributing to various impactful activities throughout the event.

Student's Corner

Chemical Engineering Students Shine at Tech Fest

The Chem-O-Car, a small, chemically powered vehicle designed and built by students, was a highlight of the event. This competition, often organized by engineering societies, challenges participants to power their vehicles using chemical reactions, ensuring they travel a specified distance and stop precisely while carrying a specific load.
The event was successfully conducted on 26th September 2024 under the guidance of faculty coordinator Mr. Nirmal Patel, with student coordinators Rohan Patel and Maulik Patel leading the initiative.

Another event - The Engineering Egg: The event challenges participants to apply their engineering skills to design and build models that protect an egg from breaking. Under the guidance of faculty coordinator Mr. Mitul Parikh, and with student coordinators Vrunda Patel and Roopam Debnath leading the initiative, the event was successfully held on 27th September 2024.

Student's Corner

Non-Tech Event: IPL Auction

The IPL Auction event challenges participants to use their strategic skills to build a team by bidding for players with higher points. The objective is to create a team with the best overall average points. The event was successfully conducted on 26th September 2024, under the guidance of faculty coordinator Mr. Dhruv Patel, with student coordinators Kishan Patel, Darshan Desai, Vansh Gohil, and Rohan Patel leading the initiative.

SCHEMCON 2024: Chemical Engineering Students Make Their Mark

Chemical engineering students from semesters 5 and 7 had the remarkable opportunity to present their innovative research work at the prestigious IIChE national conference, SCHEMCON 2024. The event was held on September 20-21, 2024, at RGIPT, Amethi, and brought together leading academicians, researchers, and professionals in the field of chemical engineering from across the country.

The students' research projects covered diverse and forward-thinking areas critical to sustainable development and technological advancement. Topics included green hydrogen production, carbon capture and sequestration, converting plastic waste into energy, and the application of artificial neural networks to optimize chemical engineering processes. These cutting-edge studies highlighted the students' commitment to addressing global challenges through innovative solutions.

In addition to presenting their work, the students had the privilege of interacting with esteemed figures in the field. Prof. G. D. Yadav, a renowned chemical engineering academic from ICT Mumbai, and Mr. S. I. Thakar, the National President of IIChE, shared their insights and experiences, inspiring the students to continue their pursuit of excellence in chemical engineering.

SCHEMCON 2024:
Chemical Engineering Students Make Their Mark

Cont..

The conference was particularly memorable for Patel Meet Manishbhai, Roopam J. Debnath, and Jay Sandipbhai Kayasth, who received the second prize for the Best Poster Presentation. Their research, titled "Kinetics of CO_2 Capture and Syngas Production via Reforming," was commended for its relevance and alignment with the conference theme, "Waste-to-Energy Conversion for a Greener Future." Their work demonstrated innovative approaches to tackling carbon emissions while producing valuable syngas, making a significant contribution to the energy sector.

Vidhit Gandhi, a final-year B.E. student, secured the third prize in the Paper Presentation category. His research, "Artificial Neural Network-Based Models for Predicting Pyrolysis Kinetics," was presented under the theme, "Smart Tools in Chemical Engineering." Vidhit's work showcased the application of advanced computational techniques to model and predict the behavior of complex chemical processes, offering insights into improving efficiency and sustainability.

SCHEMCON 2024 proved to be a platform where young chemical engineers could showcase their talent, gain valuable exposure, and connect with pioneers in the field. It was an inspiring and enriching experience for all participants, highlighting the potential of chemical engineering to drive innovation and sustainable development.

We are delighted to present the 14th issue of CHEMEZINE - the Chemical Engineering e-Magazine. This edition captures the vibrant activities, events, and celebrations conducted throughout the semester for both students and faculty. As editors, our aim is to make this magazine informative, engaging, and a true reflection of our department's dynamic culture. We have strived to cover most of the events and accomplishments, and we extend our sincere thanks to all stakeholders for their contributions.

Looking ahead, we encourage even greater involvement from everyone. We invite intriguing, unpublished articles from students and staff members of the Chemical Engineering department for upcoming editions. As we prepare for the Summer 2025 session, we are excited about the promising opportunities and activities it holds. Your suggestions are always welcome as they help us grow and improve. We look forward to your active participation in shaping the future of CHEMEZINE. Happy reading, and we hope to hear from you soon!

Upcoming Eventing	Tentative date
Refresher Course on Reaction Hazard Assessment	18th Jan 2024
MATLAB Training Program	Jan 2025
IIChE Students activity	Feb 2025
Students-Alumni Interaction: Meeting Chemical Engineering Alumni	February 2025
Seminar on making students industry ready	April 2025
One day workshop – MS Excel for Chemical Engineering	Jan 2025
Parent Teacher Meet	March 2025
One day workshop – ChemCad (Process Simulator)	March 2025

EDITORIAL BOARD

Festive Moments and Heartfelt Wishes: Celebrations in the Chemical Engineering Department