

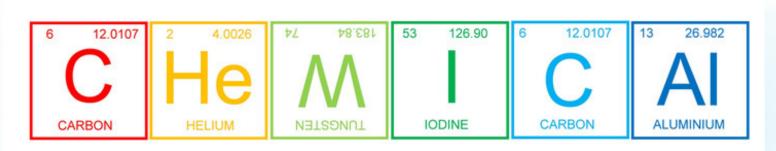


#### V.V.P.

#### ENGINEERING COLLEGE

AICTE Approved & Affiliated to GTU, Ahmedabad

July-Dec 2023-Vol. 11



## ENGINEERING DEPARTMENT







### V.V.P. Management



Shri Kaushikbhai Shukla Trustee



Shri Harshalbhai Maniar Trustee



Dr. Sanjivbhai Oza Trustee



Dr. Narendrabhai Dave Trustee

#### **Message from Principal**





Dr. Tejas Patalia

Welcome to V.V.P. Engineering College, a world class center for excellence in technical education. We are a leading technological institute of India, a home to a wide range of academic departments, providing best education in the major areas of technology and services in the area of research and consultancy.

We are proud and distinct through our global technical perspective, cosmopolitan character and being deeply rooted in the high Indian traditional culture, heritage and values. You would enjoy the challenges and opportunities we offer.

We look forwards to welcoming the engineering aspirants to a place of genuine intellectual excellence for an unforgettable simulating experience in the world of existing and emerging technologies, Welcome back to Future....

#### About the Institute



Vyavsayi Vidhya Pratishthan (V.V.P.) Engineering College is established by Rajkot Nagrik Sahakari Bank Ltd. to promote excellence in engineering education. The trust was founded in 1996 with an objective of meeting technical requirements of Gujarat. V.V.P. Engineering college has been matching ahead with a vision of transforming aspiring engineers to industry ready engineers, serving the nation at large.

The disciplined academic environment strengthening technical foundation of the students, is the unique identity of V.V.P. Innovation, creativity, team-spirit, entrepreneurship add to the scholastic achievements of the students and give them opportunities to enhance their personalities. The transparent governance and dedicated teaching by the qualified faculties make V.V.P. one of the most sought for engineering colleges of Gujarat.

With the best theoretical and practical teaching in the well-equipped classrooms and laboratories, V.V.P. is also well known for its modern library, wi-fi campus, training & placements programs, expert lectures and strong alumni network.

Needless to say that V.V.P. Engineeering College keeps no stone upturned in directing students towards research activities like the practice of research paper writing, patent drafting, paper presentation and poster presentation. Students having interest in sports & Cultural Activities also find a convenient environment and guidance here, through various club activities.

#### Vision

To be an exemplary institute, transforming students into competent professionals with human values.

#### Mission

- To provide a conducive academic environment for strengthening technical capabilities of the students.
- To strengthen linkage with industries, alumni and professional bodies.
- To organize various co-curricular and extracurricular activities for overall development of the students.
- To practice good governance and conduct value- based activities for making students responsible citizens.

## Message from Head of the Department





#### Dr. Piyush Vanzara

Chemical Engineering Department of V.V.P Engineering College, Rajkot is a pioneer department in Saurashtra - Kutch region functions with the motto of driving the process industries by producing the quality minds and believe in inculcating moral value among pupil.

The department also takes pride in being nearest to the world's largest chemical industry, Reliance Industries Limited, Jamnagar.

The department is well collabrated with industries for Environment Audit (NABL accredited and GPCB recognised schedule-I auditor), Extended in house learning program, Faculty Exchange Program, Expert talk, Industrial visits, Research project, Campus placement etc. The Department is also blessed with experienced faculty member holding Ph.D and Master Degree from Reputed Universities of the country. Proud alumni of the department are also shining in a variety of sectors all across the globe.

I Welcome you all to one of the best Chemical Engineering Department of Gujarat which is the hub of chemical industry in the country.

# Chemical Engineering Department Vision

To be evolved as a leading resource of competent chemical engineering professionals with human values.

#### Mission

- To develop technical competence among students for solving problems of chemical and allied industries.
- To provide platform for overall development of students along with technical proficiency through co-curricular and extra- curricular activities as well as academic, alumni, research and industrial collaborations.
- To nurture human values in students by addressing social and environmental aspects.

#### Program Educational Objectives (PEOs)

- Apply knowledge of chemical engineering to address real-world issues.
- Establish successful career with professional ethics in chemical industries, academia and research institutes.
- Establish as chemical engineering professionals with teamwork, leadership, effective communication, innovative thinking and problem-solving skills.
- Influence society by agglomeration of human values along with sustainable technologies.

#### Program Specific Objectives (PSOs)

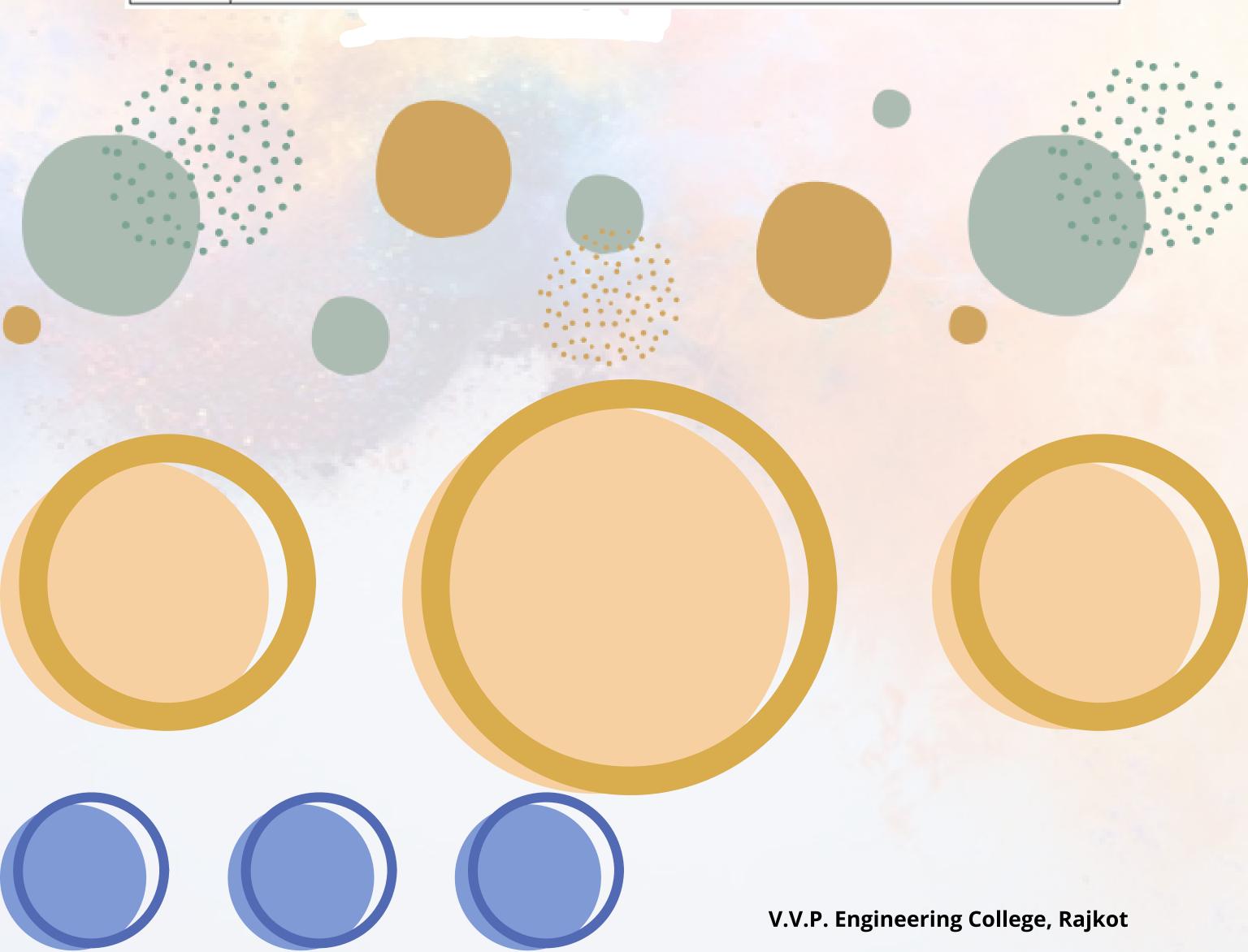
On successful completion of program, graduates will be able to:

- Apply knowledge of basic sciences, unit operations and unit processes to identify and solve problems of chemical and allied industries.
- Design innovative, economic, greener and safer processes and equipment using fundamentals of thermodynamics, kinetics, materials and energy balances.
- Model, simulate, control and optimize chemical engineering processes.

## INDEX



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3	Departmental Activities (Expert Lectures,		
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#### **GLIMPSES OF PLACEMENT 2023**





## GLIMPSES OF PLACEMENT 2023



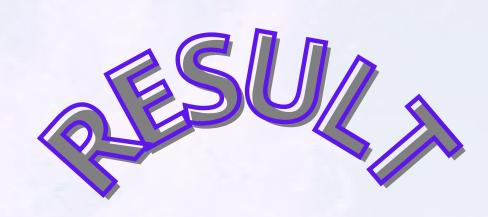
# Congratuations





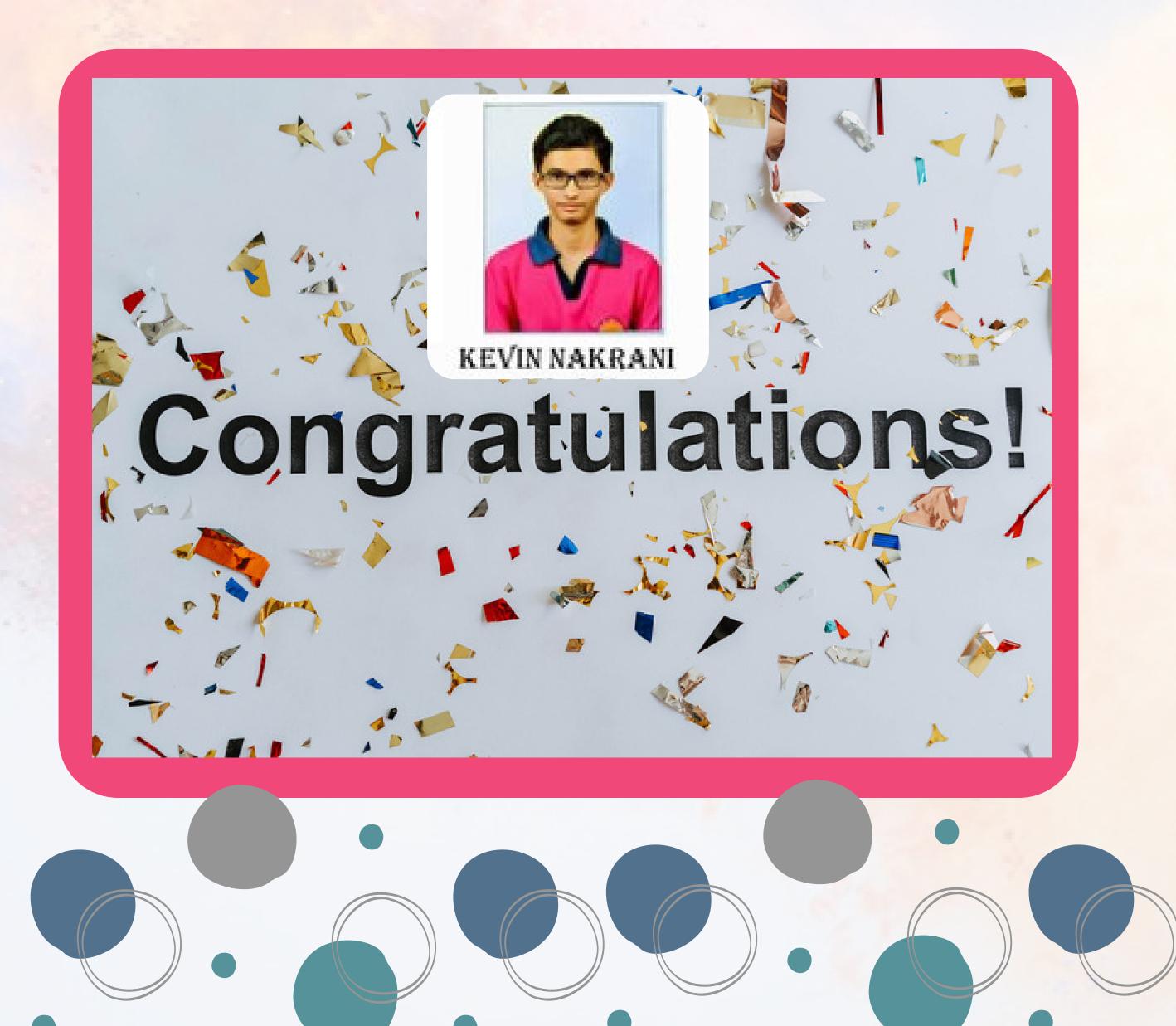
**Ankita Thaker** 

www.vvpedulink.ac.in info@vvpedulink.ac.in 91732 15401





# Mr. Kevin Nakrani secured 3 Rank in Semester 6 Exam in GTU



Ms. Cherish Savsani (5th Sem Student)

• Selected as GTU Representative in Badminton for AIU (National Level) Competition





- 7th Sem student Dharmesh Bariya was part of V.V.P. Engineering college's Cricket team. The VVP Team won the Championship title in the GTU Zonal Level Competition.
- 5th Sem student Cherish Savsani won College Level Championship in Badminton and Table Tennis in V.V.P. Spirit 2023 Sept 2023.
- 1st Sem Students Kaku Vivek and Multani Vozef both were College Level Champion in Carrom in V.V.P. Spirit 2023.







Ad – Mad Competition was organized by STANDARDS CLUB of V.V.P. Engineering College in collaboration with Bureau of Indian Standards (BIS). This competition was co-coordinated by Mrs. Dhara Ankit Upadhyay.





- Nishit Vyas
- Dev Ranipa
- Hardik Patel
- Om Dhaduk



Above team of students from 5th Semester Chemical Engineering won the 2nd Prize.

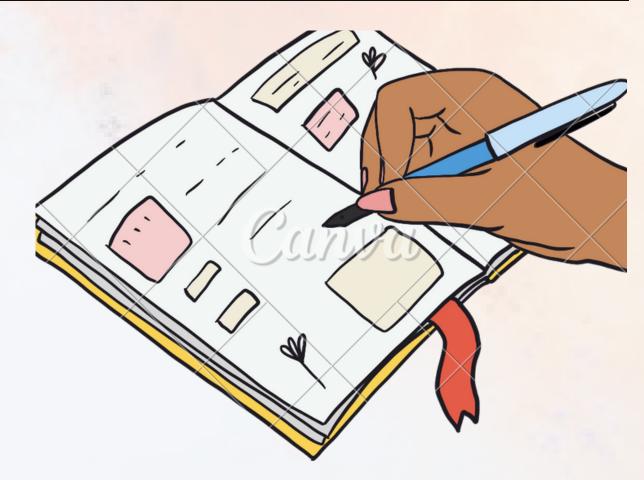
NON TECHNICAL EVENT



#### Faculty Paper Publication/Presentation

Name of Faculty	Other Authors	Title	Journal (Month_Year) / Conference (Date)
Dr. Piyush B. Vanzara	Jigesh Mehta, Anand Metre, Mathurkum ar S Bhakhar, Vishal Shah, Pratima Wadhwani	Characteristics and Physiochemical Properties of Deep Eutectic Solvents: A Comprehensive Review	Indian Journal of Natural Sciences (Oct_2023)
Dr. Piyush B. Vanzara	Richa A. Modi, Milan R. Gohel	Advanced treatment of pharmaceutical and Tyre wastewater with the help of low- pressure reverse osmosis membrane.	Sustainability, Agri, Food and Environmental Research (2023)
Dr. Piyush B. Vanzara	Swaprabha P. Patel, Ashish M. Gujarathi, Vinod V. Kumar	Insight into kinetic parameters tuning of lactic acid fermenters	Biomass Conversion and Biorefinery (Aug_2023)



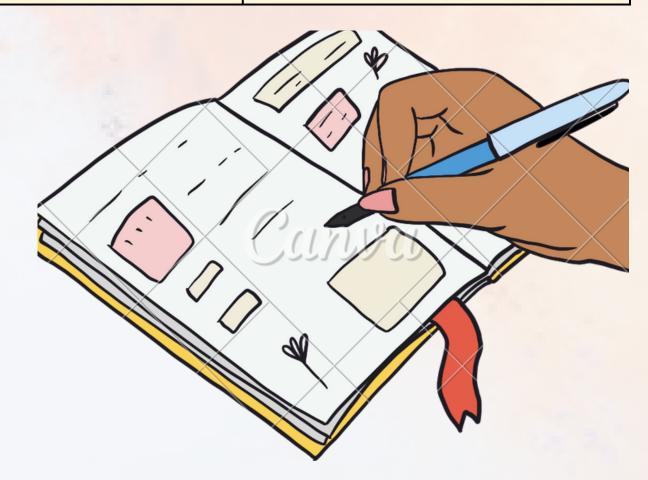




#### Faculty Paper Publication/Presentation

Name of Faculty	Other Authors	Title	Journal (Month_Year) / Conference (Date)
Dr. Vyomesh M. Parsana	Rizwan Ghumara, Ankita Raijada, Karnav Patel, Kedar Joshi, Ravibhai Bhola, Sabera Bijani, Vicky Jain, and Chirag Patel	Measurement, Correlation, and Thermodynamic Properties of the Solubility of Bisphenol Z (BPZ) in Nine Mono and (Tetrahydrofuran + 1-Propanol) Binary Solvents	Journal of Chemical & Engineering Data 2023, 68 (2698-2712)
Mrs. Dhara Ankit Upadhyay	Dr. Piyush B. Vanzara, Kajal J. Sareriya	"Methodology For Extraction of Essential Oils: A Review"	IJFMR in the volume 5 issue 4 July -August 2023







- Dr. PIYUSH B. VANZARA has participated in the one week self-sponsored online short-term course on "Advances in Energy and Environment for Sustainable Development" jointly organized by Department of Chemical Engineering and Center for Energy & Environment, Dr BR Ambedkar National Institute of Technology, Jalandhar during June 1-5, 2023
- Dr. PIYUSH B. VANZARA as a IQAC Coordinator has actively participated in two days workshop on National Institutional Ranking Framework (NIRF) and National Board of Accreditation (NBA) jointly organised by Internal Quality Assurance Cell (IQAC) GTU and LD College of Engineering during 24-25 Aug 2023.
- Dr. PIYUSH B. VANZARA has Participated in the one-day Workshop on "International Conventions on Chemicals and Waste" on 12 September, 2023 held at Gujarat Pollution Control Board, Gandhinagar, Gujarat-382 010
- Dr. Vyomesh Parsana has participated and successfully completed One Week ISTE Approved Faculty Development Program (Self-Financed and Multidisciplinary) on "Research Grants & Patent" (Hybrid Mode) organized by Dept. of Computer Science and Engg., KBPCOE, Satara in association with DBATU, Lonere & ISTE, New Delhi from 4th December, 2023 to 8th December, 2023.



- Dr. Darshana Bhatti has received Elite silver medal for NPTEL/Swayam course on Physico-chemical processes for water and wastewater treatment from Jan- Apr 2023 with 83%.
- Dr. Darshana Bhatti has attended the online workshop on Basic data analysis using SPSS during 6 Dec- 15 Dec 2023 organised by Bala's VV Academy Chennai.
- She has also participated in Online Faculty Development Programme on Recent Trends in Exergy and Sustainability during 21 Aug- 25 Aug 2023 organised by MIT, School of engineering, Pune Maharashtra.

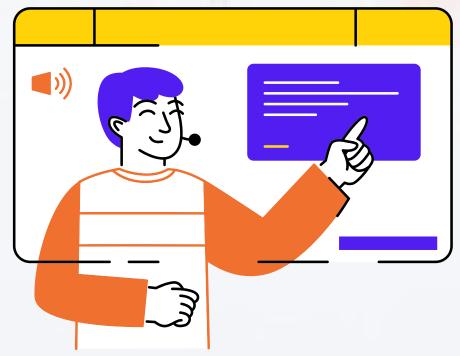
- Mr. Ajinkya Mukund Patwardhan has received Elite Nptel Certificate for completion of course on 'Transport Phenomena on Non-Newtonian Fluids. from July-Oct 2023.
- Total Number of Candidates certified in this course were 13.

• Mr. Priyank Dineshbhai Khirsariya has participated in National Level One Week Faculty Development Programme on "Research Methodology", organized by the Department of Mechanical Engineering, Padm. Dr. V. B. Kolte College of Engineering, Malkapur in association with IQAC Cell, SGBAU, Amravati, ISTE Faculty Chapter of VBKCOE-Malkapur, IE(I) Aurangabad Local Chapter & IQAC-VBKCOE, Malkapur during 2 May- 6 May 2023.





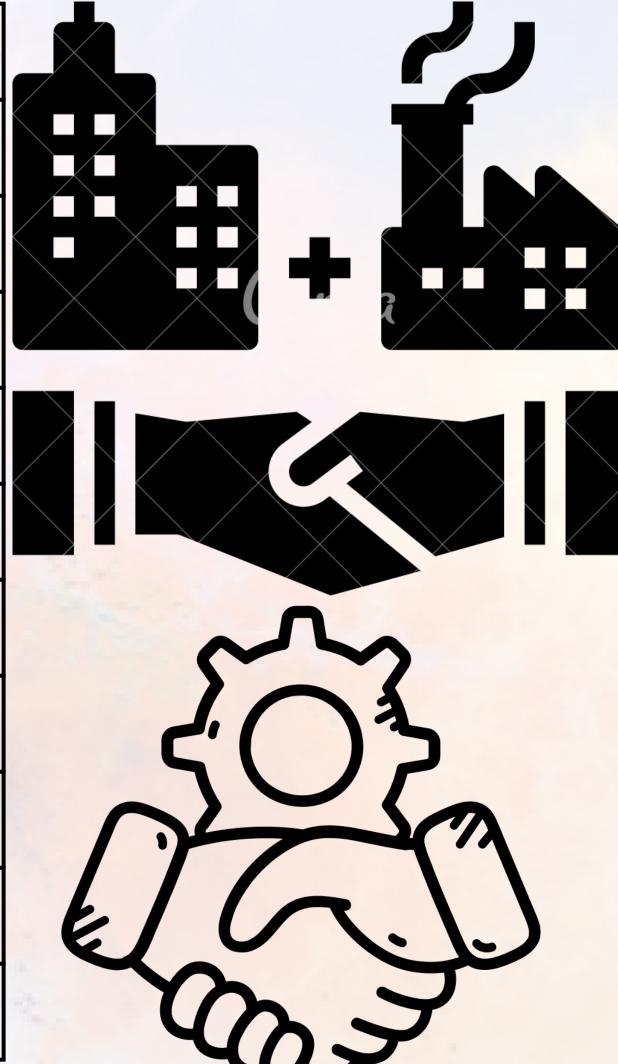
- Mr. Pratik Kishorbhai Koradiya has participated in National Level One Week Faculty Development Programme on "Research Methodology", organized by the Department of Mechanical Engineering, Padm. Dr. V. B. Kolte College of Engineering, Malkapur in association with IQAC Cell, SGBAU, Amravati, ISTE Faculty Chapter of VBKCOE-Malkapur, IE(I) Aurangabad Local Chapter & IQAC- VBKCOE, Malkapur during 2 May- 6 May 2023.
  - Mr. Rahul G.Vaidya participated in the AICTE Recognized Faculty Development Programme on Materials Characterization Techniques Conducted by Applied Science Department from 04/12/2023 to 08/12/2023 (One Week) at NITTTR, Chandigarh
  - Mrs. Dhara Upadhyay attended swayam nptel course on mechanical operations from July 2023 to October 2023 and also participated in the AICTE Recognized Faculty Development Programme on Materials Characterization Techniques Conducted by Applied Science Department from 04/12/2023 to 08/12/2023 (One Week) at NITTTR, Chandigarh





MOU SIGNED BETWEEN CHEMICAL ENGINEERING
DEPARTMENT OF VVP ENGINEERING COLLEGE RAJKOT
AND DIFFERENT INDUSTRIES

AND DIFFERENTIII	<u>VU</u> U
NAME OF COMPANY	
U-FRESH MILK AND FOOD PRODUCTS PVT LTD.	
SUGAM POLYTECH PVT LTD	
MEGPIE CHEMICALS	
SARTHI CHEM PVT LTD	
GIRIRAJ MILK PRODUCTS PVT LTD	
ASHUTOSH RUBBER PVT LTD	
ROYAL PACKAGING RAJKOT	
RISTON PAPER MILL PVT LTD	
RHODIUM MASTER	
EPP COMPOSITES PVT LTD	1



- MoU is signed for industrial visit and training, guest lectures and placement of students
- Faculty Exchange Program between V.V.P. Engineering College and ESSAR Oil ltd. Jamnagar (Expert lectures by ESSAR Officials for V.V.P. students to impart industrial aspects & Expert Lectures by V.V.P. faculties to deliver theoretical aspects to ESSAR employees) (continued since July 2016).

#### Expert Lectures



Process Intensification for Chemical Industries by Prof. (Dr) Shirish Sonwane (Professor, Department of Chemical Engineering, National Institute of Technology, Warangal)



- Dr. Shirish Sonwane shared different case studies of Chemicals production where micro reactors were used.
- He encouraged the students to design their own microreactors and concentrate on research of these microreactors.
- Dr. Sonwane supported the students for research.
- He explained different aspects of Micro reactors like its type, its design, its working, its advantages and its uses.
- Dr. Sonwane has many years of experience of research in Micro reactors.



DATE: 16/10/2023

TIME: 8:30 am to 10:00 am

VENUE: P. D. C. Auditorium, VVPEC

**TARGETED AUDIENCE: Sem 3, 5, 7 Chemical** 

**Engineering Department Students** 



#### Skill Development Programme



Chemical Engineering department organized a Skill Development Program on "Multi-Effect Evaporator" on 1<sup>st</sup> September 2023 for 7<sup>th</sup> sem students. In the first session, Mr. Pratik Koradiya explained the basic aspects of an evaporator. Along with that, he also explained multiple effect evaporation with respect to increase economy of evaporator. In the second session, Mr. Jilesh Pandya explained about the process design of Muti-Effect Evaporator and concept of boiling point elevation. This programme was coordinated by Mr. Priyank D. Khirsariya.









V.V.P. Engineering College, Rajkot

#### Skill Development Programme



The topics covered in the course included chromatography, mass spectrometry, spectroscopy, and X-ray diffraction (XRD) for material characterization. The session combined theory of analytical techniques with demonstration of instruments to aid students in understanding the applicability of common analytical methods. 3rd Semester Chemical Engineering Students has visited Center of Excellence in Drug Discovery, NFDD Complex, Department of Chemistry and Physics Saurashtra University, Rajkot along with Dr. S.S.Korgaokar. This Skill Development Programme was organized for 3rd Semester Chemical Engineering Students on 30/09/2023.









#### Skill Development Programme



In the first session, Dr. Dipesh Kundaliya explained the basic aspects of Energy Audit and Energy management on 12th August 2023. Along with that, he also shown the working of Energy Audit instruments with explanation. Energy Audit instruments such as flow meter, Lux meter and thermal Imager.

In the second session, Mr. Rahul Vaidya explained about the performance evaluation of Boilers, Furnaces, Cooling Towers and Heat Exchangers. He also demonstrated the Energy Audit instruments such as stack monitoring Flue gas Analyser, Thermal Imager, Ultrasonic Flowmeter and Power meter.

Dr. Alpesh Adesara, Associate Professor and Head of the Electrical Engineering Department, delivered a session on 'Energy Efficiency in Electrical Utilities' and explained about the basics of Energy. Along with that, he has given number of daily life examples that how to save the energy to enhance the performance of electrical utilities. .

In the last session, a link of quiz was shared among the students and certificates provided online.



Skill Development Programme was organised for 5th Semester Chemical, Mechanical and Electrical Engineering Students



#### Parents Meeting







The parents meeting was organized by Chemical Engineering Department on Saturday, 4<sup>th</sup> Nov 2023 in Mechanical Operation Lab at 9:00 am.

After this, parents met the individual faculty members where they have discussed about the academic performance of the students like class attendance, marks in mid semester and overall discipline in the department, etc. The programme was coordinated by Mr. Priyank Khirsariya.



#### Industrial Visit

Visit to RSPL Pvt. Ltd., Dwarka

Chemical Engineering department organized industrial visit at RSPL Pvt Ltd., Dwarka on 22/09/2023 for the students of 7th semester. Mr. Jilesh Pandya and Mr. Nayan Vaishnani accompanied the students during the visit. At the learning centre the production head gave a quick introduction of himself and asked the students in which field were they interested in such as process design, production, equipment design, etc. Some of the key brands of the company are - Ghadi detergent, Red chief (shoes), Xpert (dish wash), Namaste India (milk), Pro - ease (sanitary pads), Furo (shoes) and Pro - ease lovings (diaper pants).







Visit to Balaji Industries, Dhokaliya, Rajkot

On 16th September 2023, 3rd and 5th semester chemical engineering students visited Balaji Industries, under the guidance of Mr. Rahul G. Vaidya and Mr. Nayan Vaishnani.Mr. Manoj Patel and Mr Jay Mehta (VVP Alumni) explained the process for the production of different range of chemical compounds. Generally, they treat Brass Ash with sulphuric acid and then water for 12 hours. Then sent for filtration and cooling. After that, the crystals of zinc sulphate will be collected. They discussed the product's well- known precise processing, uniform composition and purity.A technical session was conducted in which Mr. Jay Mehta, along with Mr. Manoj Patel cleared the doubts of the students.





V.V.P. Engineering College, Rajkot

#### Industrial Visit



Visit to Apricot Foods Pvt Ltd, GIDC, Metoda, Rajkot

3rd and 5th semester chemical engineering students visited Apricot Foods Pvt Ltd plant on 16th September 2023. It is an entirely semiautomatic plant and at the GIDC metoda. It has a vast product portfolio with more than 45 different variants and 80 SKUs, spanning across categories like namkeens, potato chips, extruded snacks, fryums and popcorn. Students visited understood the whole process of production of Potato Wafers, starting from storage to packaging. Students also learned importance of Image **Processing** the Techniques being used in the production lines. This reduces the number of human personnel required for inspection and also increases the accuracy by discarding products having minute defects that are not even visible to the human eyes. Lastly, company personnels clear the queries which has been raised by the students and also offered the wafers.







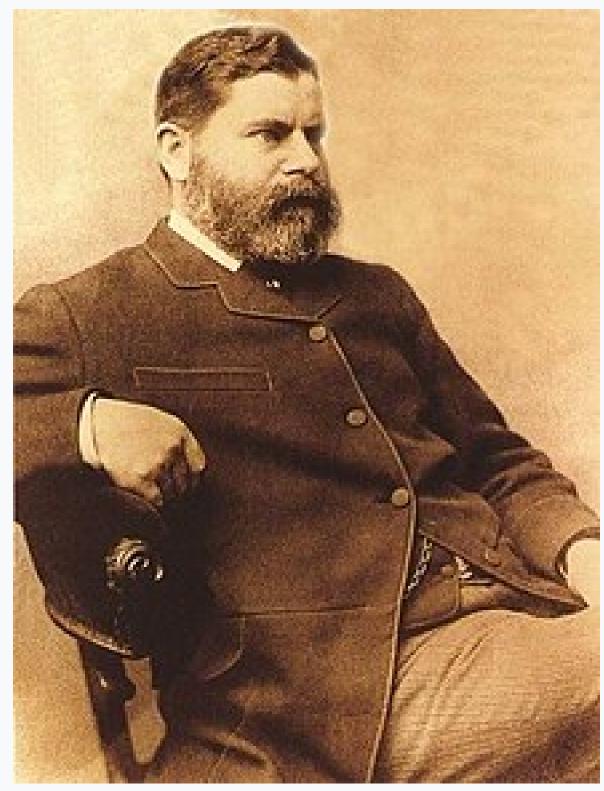
"The first chemical engineering course was delivered by George at the University of Manchester in 1887"



Arthur D Little is often thought of as the 'American father' of chemical engineering.

He also developed the concept of unit operations.









#### વી.વી.પી. એન્જીનીયરીંગ કોલેજના વિદ્યાર્થીઓ માટેની પ્રતિજ્ઞા

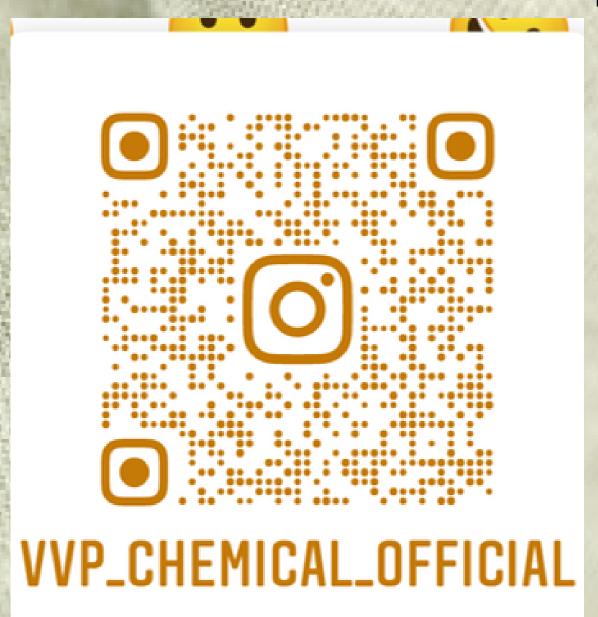




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