



K.K. Wagh Polytechnic, Nashik

Department of Chemical Engineering

Chem
Sphere





Newsletter



2023-24

Department of Chemical Engineering

CHEM SPHERE



VISION



To Develop Department as Nationally Acclaimed Center for Diploma in Chemical Engineering.

MISSION



Committed to groom students into Quality Chemical Engineers by imparting Technical Knowledge, with emphasis on Value Based Education, developing Enterprising Skills, Safe and Eco-friendly Outlook thereby contribute in development of Industry, Society and Nation



PROGRAM OBJECTIVES

- PO1: Basic and Discipline Specific knowledge
- PO2: Problem Analysis
- PO3: Design/Development of Solutions
- PO4: Engineering Tools, Experimentation and Result
- PO5: Engineering Practices For Society, Sustainability and Environment
- PO6: Project Management
- PO7: Lifelong Learning

What is Chemical Engineering ?



Chemical engineering occupies a unique position at the interface between molecular sciences and engineering. Intimately linked with the fundamental subjects of chemistry, biology, mathematics, and physics — and in close collaboration with fellow engineering disciplines like materials science, computer science, and mechanical, electrical, and civil engineering — chemical engineering offers unparalleled opportunities to do great things.

Chemicals play indispensable role in our life. Every moment of life demand use of appropriate chemicals for making better living. Fuel like LPG, Diesel, Kerosene, LNG and CNG, Fertilizers, Agrochemicals, Pharmaceutical, Paints, Cements, Plastics, Flavour and Fragrance manufactured by chemical industries are the gift of chemical engineers to the mankind. To manufacture these items and offer allied services, there is great demand for chemical engineering.



About Department



The institutions offering this course are very less. Out of all engineering seats at national level; less than 0.5 % of seats are for Chemical Engineering Course. Understanding the scarcity and demand; the course was started in 1998. We believe in overall development of students and it is our philosophy that every student is like diamond, therefore all efforts are directed for polishing them so that their worth will increase and they will glitter everywhere they go. A department has to its credit many success stories where complete transformation of an ordinary student to successful professional has taken place. Our efforts are very well recognized at State and National level. Chemical department has received so far a grant of around 15 lacs for arranging events, updating facility and networking with industry. India's first revolution has been green revolution i.e. in agricultural; at present also India is set for another green revolution which aims for green manufacturing.



About Department



Lab 1: Computer lab

This lab consists of a bunch of computers where all the technical work can be carried out and first year students get to learn about technical skills such as Microsoft word, power point presentation and etc . which is taught in the subject ICT in first semester .

Lab-2 : Mass & Heat Transfer

This lab consists of several equipment's of heat and mass transfer which are used to conduct practicals and understand the mass and heat transfer operations.



Lab-3 : Environment Engineering lab

This lab is used to do research and study about environmental safety such as water treatment processes ,improve air quality, solid waste management and several more.



About Department

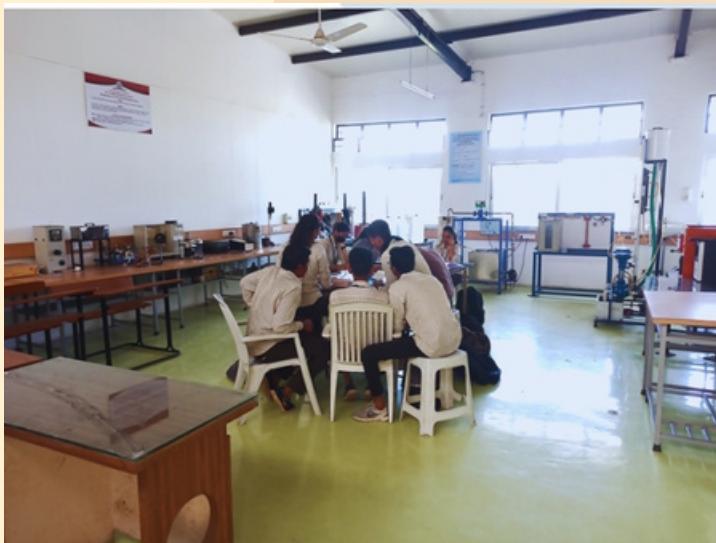


Lab-4 : Chemical Technology lab

This lab consists of various types of chemicals And chemical handling equipment's which are used to conduct practicals and teaches us the about the behavior of various chemicals with safety

Lab-5 :Mechanical & Fluid Operation lab

This lab consist of several mechanical and fluid flow equipment's such as jaw crusher, ball mill ,plate and frame filter press , venture meter , orifice meter, rotameter, u- tube manometer and etc.



Lab-6 : Process Instrumentation & Control lab

This lab is used to study about various electrical equipment's and their functioning which are used in chemical plants.



The Scope of Chemical Engineering



The scope of chemical engineering is broad and varied, covering many industries such as pharmaceuticals, energy, materials, food, and biotechnology. Chemical engineers are involved in designing and developing processes that convert raw materials into useful products, optimizing industrial operations, and implementing new technologies that improve efficiency and sustainability.

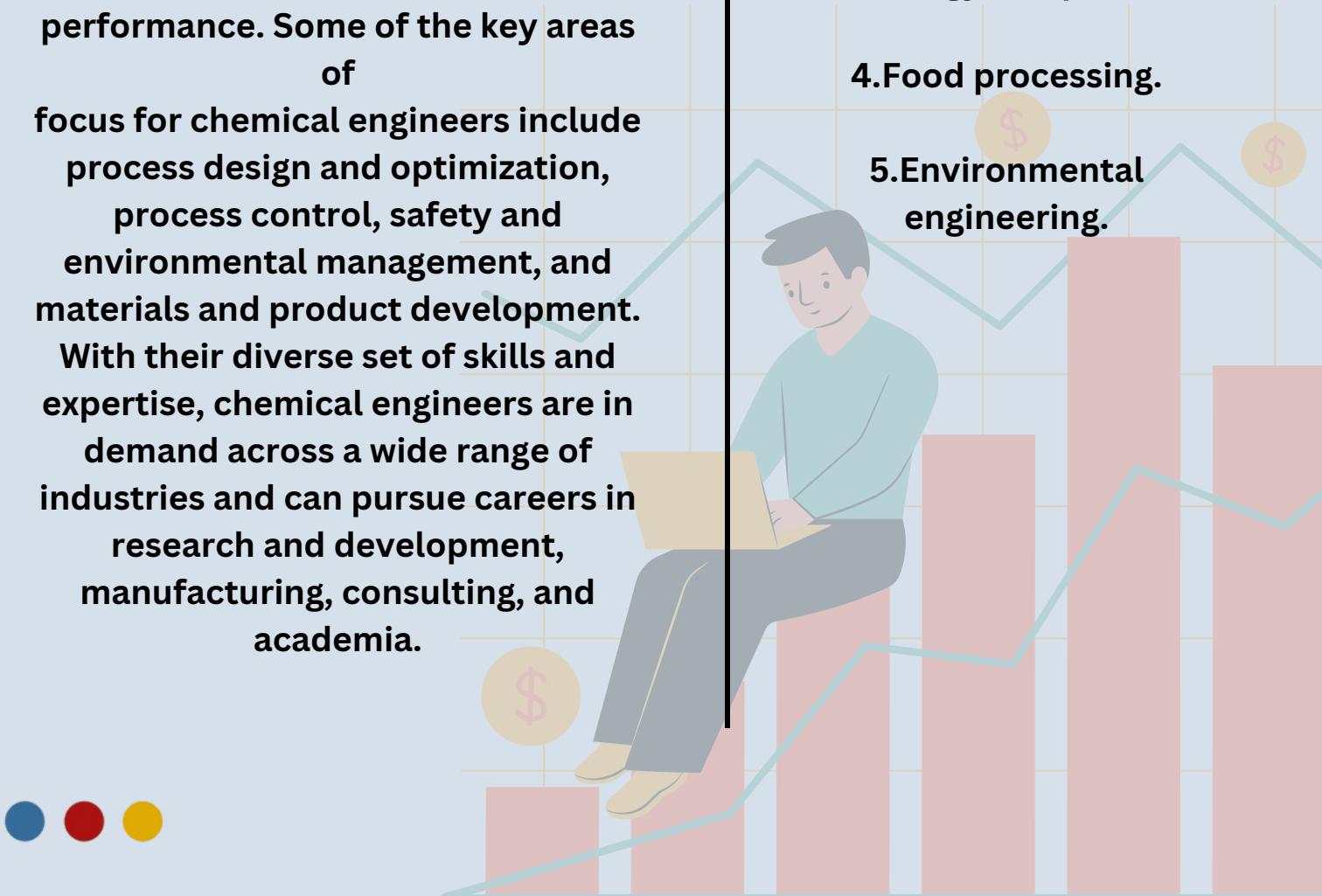
They may work on projects such as designing and constructing chemical plants, researching new materials, developing new chemical products, and identifying ways to reduce waste and improve environmental performance. Some of the key areas of

focus for chemical engineers include process design and optimization, process control, safety and environmental management, and materials and product development.

With their diverse set of skills and expertise, chemical engineers are in demand across a wide range of industries and can pursue careers in research and development, manufacturing, consulting, and academia.

Chemical engineering has a vast scope in India due to the country's rapidly growing economy and industrialization. Some of the areas where chemical engineering finds its application in India include:

1. Petroleum and petrochemicals.
2. Pharmaceuticals.
3. Energy and power.
4. Food processing.
5. Environmental engineering.



Famous chemical Engineers in the World



Mr. Mukesh D. Ambani - is a Chemical Engineer from the Institute of Chemical Technology, Mumbai (erstwhile the University Department of Chemical Technology, University of Mumbai). He pursued an MBA from Stanford University in the US. He has been on the Board of Reliance since 1977. He initiated Reliance's backward integration journey – from textiles to polyester fibres and further onto petrochemicals and petroleum refining, and going upstream into oil and gas exploration and production. He created multiple new world-class manufacturing facilities involving diverse technologies that have raised Reliance's petrochemicals manufacturing capacities from less than a million tonnes to about 21 million per year .



Aditya Birla- Aditya Birla, the late Indian industrialist and businessman, held an undergraduate degree in chemical engineering from the Massachusetts Institute of Technology (MIT). This educational background provided him with the skills and knowledge to lead the chemical businesses of his family's conglomerate, the Aditya Birla Group. As a chemical engineer, Aditya Birla was involved in the development and implementation of the group's chemical manufacturing processes. He also played a key role in the expansion of the group's chemical businesses, which produced a wide range of products such as carbon black, viscose staple fiber, and chemicals for use in the textiles, agrochemicals, and pharmaceutical industries.



Famous chemical Engineers in the World



Carl Bosch (27 August 1874 – 26 April 1940) was a German chemist and engineer and Nobel Laureate in Chemistry. He was a pioneer in the field of high-pressure industrial chemistry and founder of IG Farben, at one point the world's largest chemical company. After World War I Bosch extended high-pressure techniques to the production of synthetic fuel via the Bergius process and methanol. In 1925 Bosch helped found IG Farben, and was the first head of the company. From 1935, Bosch was chairman of the board of directors. He received the Siemens-Ring in 1924 for his contributions to applied research and his support of basic research. In 1931 he was awarded the Nobel Prize in Chemistry together with Friedrich Bergius for the introduction of high pressure chemistry.



Raghunath Anant Mashelkar - also known as Ramesh Mashelkar, (born 1 January 1943) is an Indian Chemical Engineer, born in a village Mashel in Goa and brought up in Maharashtra. He is a former Director General of the Council of Scientific and Industrial Research (CSIR). He was also the President of Indian National Science Academy (2004-2006), President of Institution of Chemical Engineers (2007) as also the President of Global Research Alliance (2007-2018). He was also first Chairperson of Academy of Scientific and Innovative Research (AcSIR). He is a Fellow of the Royal Society, Fellow of the Royal Academy of Engineering (FREng), Foreign associate of US National Academy of Engineering and the US National Academy of Sciences.



K.K. WAGH POLYTECHNIC, NASHIK
Chemical Department(Academic Year 2023-24)

Staff Information

Sr. No.	Name of Staff	Designation	Qualification	Mobile No.	Email Id	Photo
1.	Dr. Pravin Sukharaj Bhandari	HOD	Ph.D.	9970031004	psbhandari@kkwagh.edu.in	
2.	Dr. Satish Sukdeo Rikame	Lecturer	Ph. D	8600626264	ssrikame@kkwagh.edu.in	
3.	Mr. Pravin Madhukarao Pathak	Lecturer	M.E (Chem)	9960593455	pmpathak@kkwagh.edu.in	
4.	Mr. Mahendra Nana saheb Shete	Lecturer	B.E (Chem.) Advanced Diploma In Industrial Safety	8087508165	mnshete@kkwagh.edu.in	
5.	Mrs. Yojana S. Kumawat	Lecturer	M. Tech (Chem)	8888857832	yskumawat@kkwagh.edu.in	
6.	Mrs. Jyoti H. Nihalani	Lecturer	B.E (Chem)	9822994044	jhnihalani@kkwagh.edu.in	
7.	Ms. Ayeshasiddika Burhan Shaikh	Lecturer	B.E (Chem)	7650962275	abshaikh@kkwagh.edu.in	
8.	Mr. Dilip S. Malode	Tech. Assistant	Diploma in Chemical Engg.	9011133874	dsmalode@kkwagh.edu.in	
9.	Mr. Sachin Balasaheb Jadhav	Tech. Assistant	Diploma in Computer Technology	7350561717	sbjadhav@kkwagh.edu.in	
10.	Mr. Rahul Gulab Kakad	Attendant	B.A	7798027142	rgkakad@kkwagh.edu.in	

CHESA

Chemical Engineering Student's Association

Working Committee 2023-24



Chairman:-Dr. P. S. Bhandari (HOD)



Co-ordinator:-Mr. M. N. Shete



President:- Arkan Mirza



Vice-president:- Yash More



K.K. WAGH POLYTECHNIC, NASHIK

Chemical Department(Academic Year 2023-24)

CHEMICAL ENGINEERING STUDENT ASSOCIATION (CHESA)

Sr. No.	Post/ Committee Name	Name of Student with Class	
1.	President	Aryan Mirza (TYCH)	
2.	Vice President	Yash More (SYCH)	
3.	Secretary	Kaveri Shirke (FYCH)	
4.	Expert Members	1.Mohammed Ali (TYCH) 2.Soham Dhangar (SYCH)	
5.	Sports Committee	1.Ankit Aher (TYCH) 2.Ayan Raje (SYCH)	
6.	Decoration Committee	1.Ishwari Pandit (TYCH) 2.Shraddha Vaidya (SYCH) 3.Gayatri Rikame (SYCH)	
7.	Treasurer Committee	1.Bhavesh Sawale (TYCH) 2.Omkar Wagh (SYCH)	
8.	Anchoring Committee	1.Asheesh Shinde (TYCH) 2.Soham Dhangar (SYCH)	
9.	Discipline Committee	1.Tanmay Pagar (TYCH) 2.Arshad Baig (TYCH) 3.Omkar Shinde (TYCH) 4.Sai Chitte (TYCH) 5.Tushar Borse (SYCH)	
10.	Cultural Committee	1.Yash Khairnar (TYCH) 2.Pradnya Unhale (TYCH) 3.Uday Chavan (SYCH)	
11.	Photoshoot Committee	1.Abhinav (TYCH)	2.Soham Saskar (SYCH)
12.	Refreshment Committee	1.Faiz Shaikh (TYCH) 2.Aman Aute (TYCH) 3.Ishwari Pandit (TYCH) 4.Kadambari Dhaktode (TYCH)	
13.	Travel Arrangement	1. Bhavesh Khaire (TYCH) 2.Nikhil Ganguarde (SYCH)	
14.	Girls Representative	1.Snehal Yeole (TYCH) 2.Gayatri Rikame (SYCH) 3.Aboli Mahajan (SYCH)	

Toppers

WINTER 2023



Rank	First Year	%	Second Year	%	Third Year	%
1st	Sanskars Lokhande	87.01%	Soham Dhangar	91.03%	Yash Khairnar	93.33%
2nd	Aayush Jadhav	75.71%	Prapti Bhor	86.42%	Mohd. Ali Dahoodwala	92.56%
3rd	Gaurav Sonawane	75.54	Bhoomi Somvanshi	86.3%	Pradnya Unhale	91.44%

Toppers

SUMMER 2024

Rank	First Year	%	Second Year	%	Third Year	%
1st	Sanskars Lokhande	84.87%	Soham Dhangar	91.03%	Yash Khairnar	93.72%
2nd	Prithviraj Jagtap	75.83%	Prapti Bhor	87.87%	Mohd. Ali Dahoodwala	93.11%
3rd	Shubham Ghuge	75.33%	Bhoomi Somvanshi	84.64%	Pradnya Unhale	92.06%



Industrial Visits..



Godavari Biorefineries LTD



Good Drop wine cellers pvt ltd



Sahyadri Farms



Industrial Visits..



Align Industries



Bio medical waste



United heat exchanger



Guest Lectures



Guest lecture on an occasion of Foundation Day of Chemical Department celebrating 25th Anniversary on the topic “Environmental Social Governance” by Mr. Prashant Deore,



Guest lecture on an occasion of Foundation Day of Chemical Department celebrating 25th Anniversary by Mr. Prashant Naik & Mr. M. R. Mirza

Guest lecture on “ Industrial Concept of Chemical process Technology” by Mr.Raghunath Vishroop



Guest Lectures



**Personality Development
Training Program conducted
by Mr. Abhay Bag,
Motivational Trainer, The
Art of Success)**

 **K. K. Waghr Education Society's,
K K WAGH POLYTECHNIC, NASHIK.**
INDUSTRIAL SAFETY & CHEMICAL ENGINEERING DEPARTMENT
Accredited by NBA, affiliated to MSBTE, Mumbai.
Approved by AICTE, New Delhi.

Resource Person


On the occasion of "National Safety Day 2024"
Industrial Safety, Chemical Engineering Students Association (CHESA)
in association with IE(I) Students Chapter and ISTE Chapter & IIC invites
you for **(OPEN TO ALL & FREE BUT WITH LIMITED PARTICIPANTS)**

**Online Expert talk on
"Focus on Safety Leadership for ESG Excellence"**

 Date: 04/03/2024,
Time: 02:00 pm

 **Meeting ID: 6135960075
Passcode: 54321**

**Shri. Govind Pitre,
Shashwati Consultancy Services,
35 years of experience,
agpp.scs@gmail.com
Contact: 9922419763**

Safety week celebration pitre expert talk



Campus Placement



2023-24



**K. K. Wagh Education Society's,
K. K. Wagh Polytechnic, Nashik
Campus Placement 2023-24**


Akshada Waje

Student of **Chemical Engineering**

Department placed in 

.... Also placement activity of 1 company  **in progress**

Congratulations!



**K. K. Wagh Education Society's,
K. K. Wagh Polytechnic, Nashik
Campus Placement 2023-24**


Rutuja Borade

Student of **Chemical Engineering**

Department placed in 

.... Also placement activity of 1 company  **in progress**

Congratulations!



**K. K. Wagh Education Society's,
K. K. Wagh Polytechnic, Nashik
Campus Placement 2023-24**


Mayur Shirole

Student of **Chemical Engineering**

Department placed in 

.... Also placement activity of 1 company  **in progress**

Congratulations!



Campus Placement



2023-24


**K. K. Wagh Education Society's,
K. K. Wagh Polytechnic, Nashik
Campus Placement 2023-24**


Student of **Chemical Engineering**

Department placed in  

Harshali Dhondage

.... Also placement activity of 1 company    

Congratulations! **in progress**

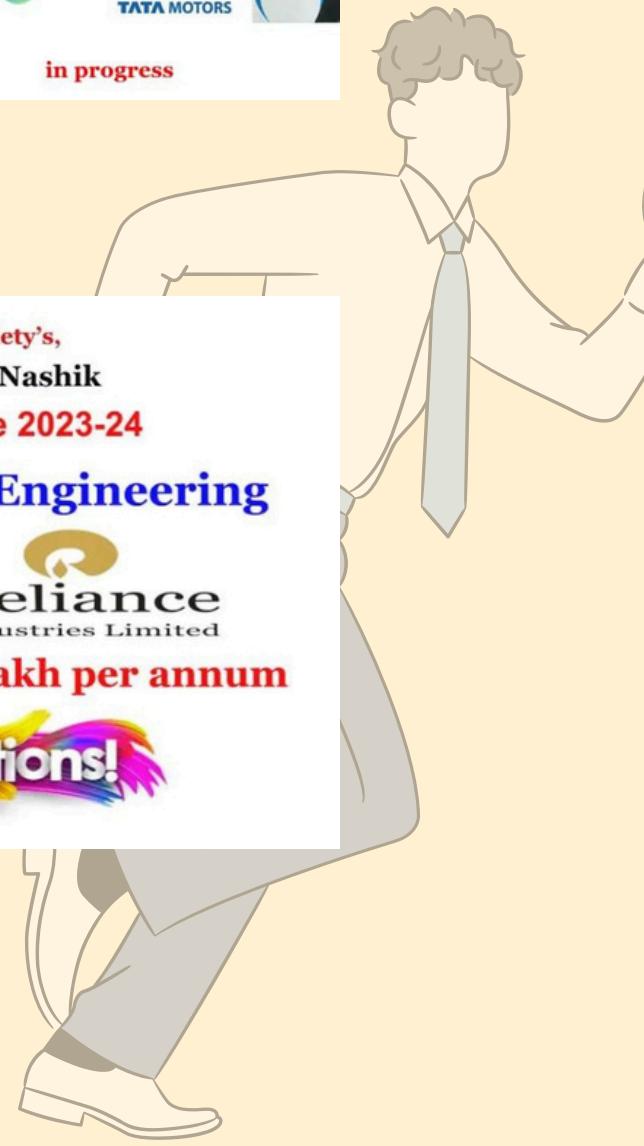

**K. K. Wagh Education Society's,
K. K. Wagh Polytechnic, Nashik
Campus Placement Drive 2023-24**


Student of **Chemical Engineering**

Department placed in 

Package Offered:- *4.2* Lakh per annum

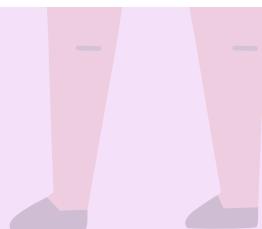
Congratulations!



Student Corner



Photography by Prapti Bhor and Ayush Atey



Student Corner



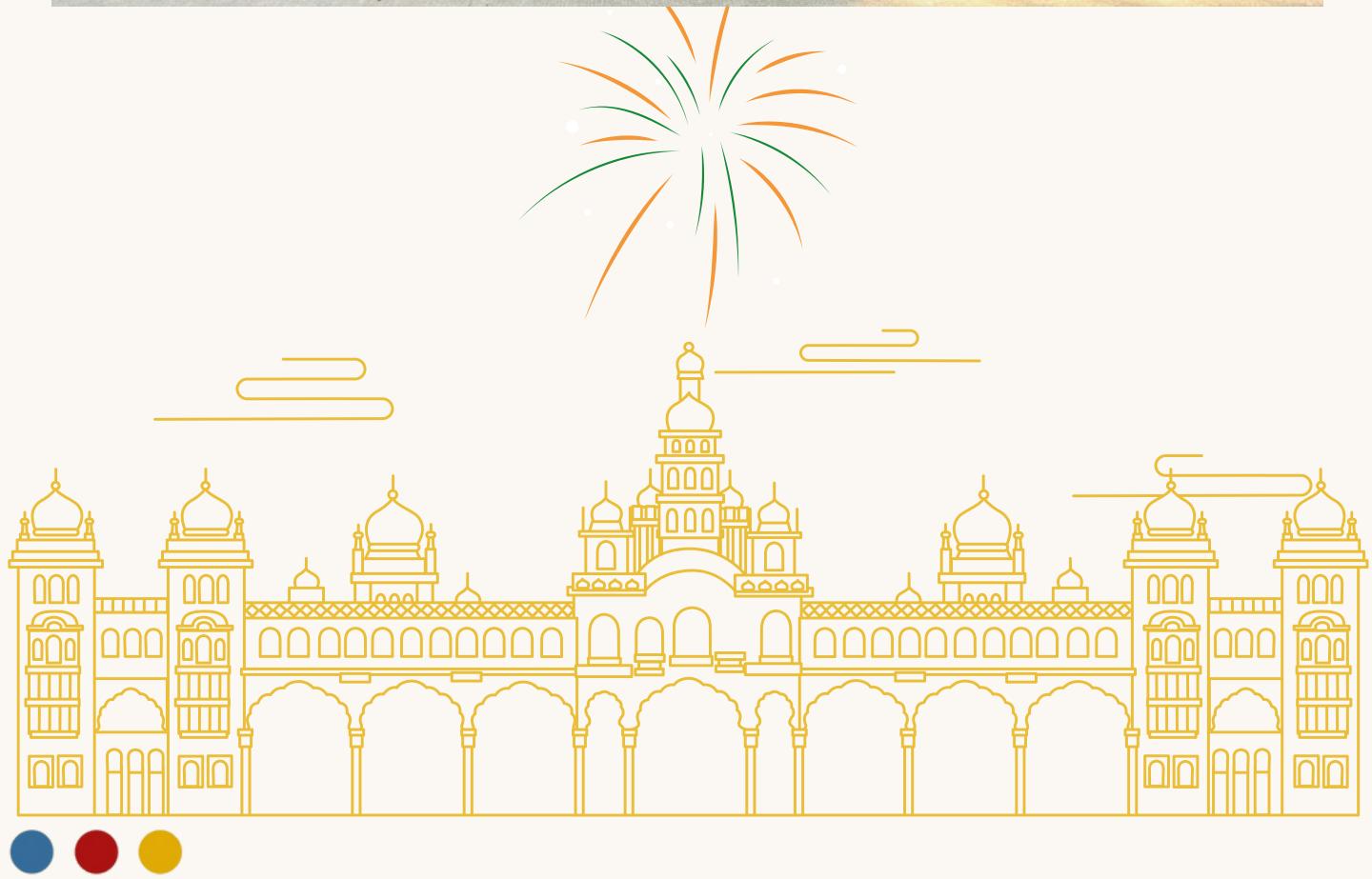
*Amazing
Artworks
By
Aayush Atey
(SYCH)*



Cultural Events



Cultural Events



Achievements of Department



- Funding received (Received grants more than 13.74 lakh) from:
- AICTE, New Delhi for establishment of Industry Institute Partnership Cell
- AICTE under MODROBS scheme for modernization of laboratory.
- EDII, Ahmedabad under DST-NIMAT scheme for organizing
- Entrepreneurship Awareness Camp
- AD MAD Show Competition was organized on an occasion of 25 years of Foundation day of Chemical Department on 8th September 2023
- Chemical Engineering Department organized NASCENT 2024 – MSBTE Sponsored State Level Technical Paper Presentation Competition on 02th February 2024.



Technical Event



Achievements of Department



Celebrating 25th years of Foundation Day of Chemical Department

Innovation day was celebrated by organizing Guest lecture on the topic “Innovation and IPR” on 17th Oct 2023 at Vishwakarma hall.



Faculty Achievements



- 1. Dr.Pravin Bhandari completed PhD from ICT Mumbai. He has published 5 papers in peer reviewed journals.**
- 2. Dr.Pravin Bhandari is recognized reviewer for two Elsevier journals Chemical engineering Processing : Process Intensification and South African Journal of Chemical Engineering. Completed review 12 times for international papers.**
- 3. Team mentored by Dr.Pravin Bhandari and Prof.Mrs.Yojana Kumawat received first prize of 1 Lakh in Smart India Hackathon organized by the Ministry of Education's Innovation Council at Reva University, Bengaluru.**
- 4. Dr. Satish Rikame has completed PhD from SVNIT, Surat with Five publications. He has 3 patents on his name.**
- 5. YouTube videos developed by Prof.Mahendra Shete related to testing of Chemical Purity are very much appreciated by peoples and reached widely.**
- 6. Every faculty has launched courses on Udemy platform and started a YouTube Channel.**
- 7. Prof. Pravin Pathak has published 21 paid Udemy courses.**
- 8. Prof. Pravin Pathak published a book on “Industrial Safety Management”.**
- 9. Prof. Mahendra Shete, Prof. Yojana Kumawat, Prof. Pravin Pathak, Dr.Satish Rikame, Dr.Pravin Bhandari have developed eContent and question bank for Chemical Engineering courses offered by MSBTE.**
- 10. Dr.Satish Rikame and Prof.Mahendra Shete have contributed as an editor for a Marathi book on Environmental studies published by Maharashtra State Board of Technical Education, Mumbai.**



Faculty Participation



1. **Dr. P. S. Bhandari** worked as reviewer for **Brazilian Journal of Chemical Engineering** and **Chemical Engineering Processing: Process Intensification**(Elsevier).He also worked as Judge for National Level Event “**Chemfest 2024**” organized by Department of Chemical Engineering, KKWIEER.
2. **Mrs. Y. S. Kumawat** completed 8 weeks NPTEL course on “**Biological Process Design for Wastewater Treatment**” from **January –March 2024**
3. All Staff have done Short Term Training program in various chemical industries
4. **Dr. P. S. Bhandari, Mr. P. M. Pathak, Mr. M. N. Shete and Mrs. Y. S. Kumawat** have participated in K scheme Curriculum Revision in February and March 2024
5. **Dr. P. S. Bhandari and Mrs. Y. S. Kumawat** prepared Manual of “**Fundamentals of Chemical Engineering and Material of Construction(FCEM)**
6. **Dr. P. S. Bhandari** participated in Curriculum Development in K Scheme of MSBTE for First Year, 2nd Semester, Subject **Fundamentals of Chemical Engineering(FCE)**
7. **Mr. P. M. Pathak** worked as moderator for Chemical and Process Safety Management subject by MSBTE from 3rd Nov to 11th Nov 2023. He also Completed NPTEL the 12-week course “**Hydrogen Energy:Production, Storage, Transportation & Safety**” by Swayam from July to Oct 2023.
8. **Mr. M. N. Shete** participated in 1-day FDP on “**Training program for Faculty about Internal and Institutional Growth**” by MSBTE at GGSP,Nashik on 31st Oct 2023
9. Many more FDP and workshop are attended by all faculty members in academic year 2023-24



Memorable Moment



Dr. P. S. Bhandari was felicitated for winning “ Best Teacher Award” on 16th February 2024



Student Achievements



Sharayu Wakchaure and Aarti Nagare won 2nd Prize in project presentation competition organized by Chemical Engineering Department, KKWIEER on 05/04/2024



KKW's Boys & Girls from Badminton team for winning Inter college Final matches held at Nashik Gymkhana, Shalimar, Nashik on 18th Jan 2024 .



Student Achievements



Asheesh Shinde TYCH for winning zonal level weightlifting championships

held at Gymkhana Dept,K K Wagh Poly ,Nashik on 06th Feb 2024.



KKW's volleyball GIRLS team for magnificent win in E2 zonal level final match

**against M.S.Gosavi Poly,Nashik Held at MSGP, Nashik
Total 8 Teams were Participated..**



Student Achievements



Sr. No	Name of Student	Event	Sponsoring authority	Level	Date	Rank/ Participation
1	Sharayu Wakchaure	Project Presentation competition (Chemfest2k24)	KKWIER, Nashik (Chemical Dept.)	National	5/4/2024	2nd Price
2	Aarti Nagare					
3	Shehal Yeole					
4	Kadambari Dhaktode					
5	Sharayu Wakchaure	Paper Presentation competition (Chemfest2k24)	KKWIER, Nashik (Chemical Dept.)	National	4/4/2024	2nd Price
6	Rutuja Borade					

Sr.No.	Event	Name	Class	Zonal	Inter-Zonal
1	Badminton (Boys)	Mohammed Ali Asif Dahoodwala	TYCH	Winner	Quarter-Final
2	Badminton (Girls)	Pradnya Milind Unhale	TYCH	Winner	-----
3	Kabaddi (Boys)	Sumeet Bhausaheb Pacharne	TYCH	Semi-Final	-----
4	Volleyball (Girls)	Sharayu Vilas Wakchaure	TYCH	Winner	Semi-Final
9	Cricket (Boys)	Ankit Aher	TYCH	Runner-Up	-----
11	Power Lifting	Asheesh Shinde	TYCH	Runner-Up	

Two students: Sharayu Waghchaure (TYCH) and Aboli Mahajan (SYCH) from Chemical Department are selected as Campus Ambassadors of K K Wagh Polytechnic, Nashik for the event “ChemTECH World Expo” Mumbai which is scheduled in March 2024.





Alumni



Alumni meet was arranged on 18 March 2024 at Dubai .



Annual general meeting of Alumni association of KKWP ,Nashik was arranged on 16 Mar 2024 at principal office .



Industry owner Alumni meet was arranged on 01 Mar 2024





It is immense pleasure to write message for first publication of Departmental Newsletter Chesa 0078 Updates (CHEMOSPHERE).

In the era of information and communication technology, where every minute is bringing in new ideas and issues. The journey of chemical engineering started in the year 1998. Around 500 students passed out. We could connect with many but not with all so continuously there was a thought; can we keep our all alumni and stakeholders in the arena of Chesa 0078 Updates (CHEM-SPARX). This made me to explore the possibility by the faculty of our department Mrs. J.H. Nihalani. I shared idea with her and some student's.

Chesa 0078 Updates (CHEMOSPHERE) is a platform to provide information about different affairs in chemical engineering and industry sector in addition to this the events and updates in the department, achievements, and student's articles will also be part of CHEMOSPHERE. We also plan to publish interview of alumni or an entrepreneur taken by our students and profile of one reputed industry.

I hereby congratulate all members on the occasion of first issue. I also appeal our alumni to share some updates, achievements and development for publication in newsletter.

Best wishes

Dr. P.S. Bhandari
(H.O.D)
Chemical Dept.





Dear Aspirant students,

It's my heartfelt pleasure to invite you in our family which always dedicated to achieve for humanitarian goals and morality through developments in technical field from last 28 years.

In an era of stiff competition, success can only be achieved if one makes the right kind of endeavor at the right time and in the right direction. "Success will never lower its standard to accommodate us. We have to raise our standard to achieve it.

Your aspiration and craving for knowledge is completely quenched by our assets- Hon. Board of Directors, Faculty and all the staff members by the time you step in. We not only believe in teaching but inspiring young, dynamic and magnetic minds for nation building as they are carved out finely. Therefore, we have an excellent combination of industry professionals and academicians on our faculty, who provide a holistic view of the nuances of engineering operations and life skills to our students.

I wish all the success to you.

Prof. P.T. Kadave
Principal
K. K. Wagh Polytechnic, Nashik.

EDITORIAL TEAM

Editor:- Dr. P.S. Bhandari

Staff Coordinator:- Mrs. J.H.Nihalani

Students:-

Uday Chavan (TYCH)

Prapti Bhor (TYCH)