



SSBT's College of Engineering & Technology, Bambhori, Jalgaon
(Included under section 2 (f) and 12(B) of the UGC Act, 1956)
Grade B ++ (2.91) NAAC Accredited
Department of Chemical Engineering

MOMENTUM

News Letter Vol. No. XX July 2021– Dec 2021

VISION

Today we carry the flame of quality education, knowledge and progressive technology for global societal development; tomorrow the flame will glow even brighter.

MISSION

To provide conducive environment for preparing competent, value added and patriotic chemical engineers of integrity of par excellence to meet global standards for societal development.

Salient Features of Chemical Engineering Programme:

- ◆ *Experienced, Qualified & Research Oriented Faculty*
- ◆ *Program Accredited Thrice by NBA*
- ◆ *Modern and Well Equipped Laboratories*
- ◆ *Excellent Results*
- ◆ *Research Facilities*
- ◆ *Departmental Library with Internet Facility*
- ◆ *Long Tradition of Gold Medalist in University Exams*
- ◆ *ASPEN HYSYS Software*
- ◆ *Consultancy for Chemical Engineering & Allied Processes*
- ◆ *Teacher Guardian Scheme*
- ◆ *Excellent Self-Study Material*

About the Department:

The Chemical Engineering Department has got the NBA Accreditation by National Board of Accreditation (NBA) Committee constituted under AICTE with effect from 15-02-2005 for 3 Years and re-Accredited for 5 Years from 19/08/2008 and again re-Accredited for 2 years with effect from 01/07/2014.

Department of chemical engineering came into existence in 1996 with starting of B.E. programme in Chemical Engineering. The department is having highly qualified and experienced faculty and modern infrastructural facilities. The department is engaged in teaching and research in chemical engineering & related areas.

This department caters to needs of B.E. Chemical engineering course as prescribed by the Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon (M.S.). All the laboratories are spacious & equipped with modern & sophisticated equipments, machinery and softwares.

Programme Educational Objectives (PEOs) of Chemical Engineering Department

1. Core Knowledge

To provide the quality education in the field of basic sciences, mathematics, chemical engineering and allied technologies to pursue higher education and research for global socioeconomic development.

2. Employment

To motivate the students for gaining value added knowledge and real world exposure by industrial training, visits and workshops.

3. Professional Competency

To build a chemical engineer of integrity and par excellence with professional and ethical values.

Programme Outcomes (POs) of Chemical Engineering Department

PO1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12 Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSOs) of Chemical Engineering Department

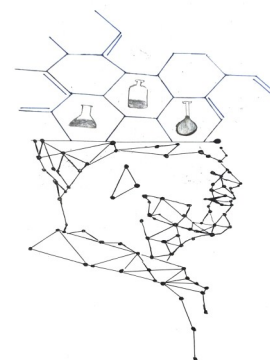
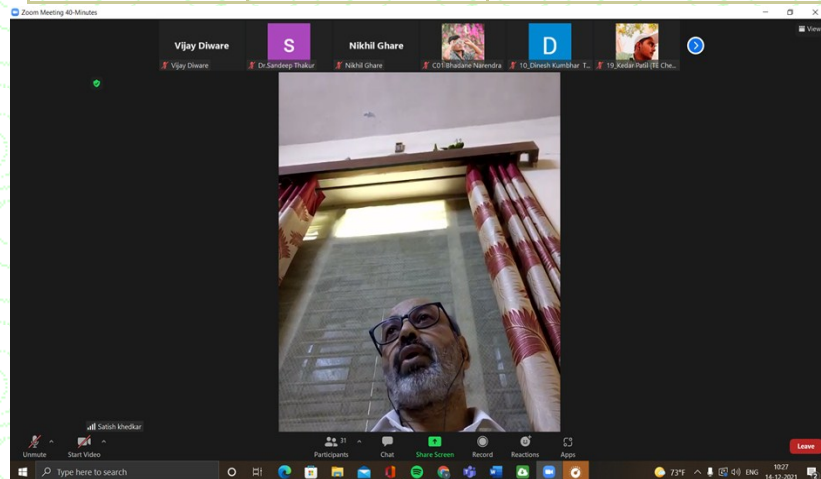
PSO1 How are you able to apply basic principles of science, mathematics and chemical engineering skills in interpreting and analyzing experimental data for societal development?

PSO2 How are you able to design and provide solutions to problems in the development of chemical and allied industries?

PSO3 How are you able to display multidisciplinary approach for providing techno-economical and eco-friendly solutions?

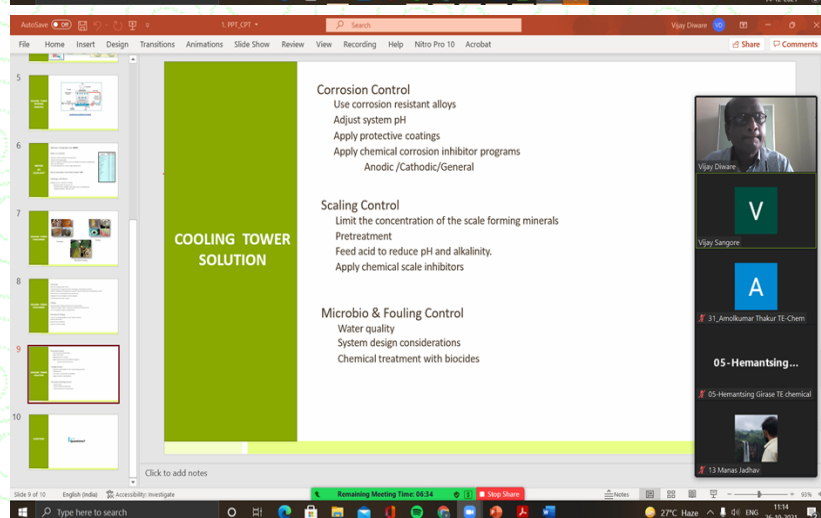
Activities Conducted by Chemical Engineering Department in Academic Year 2021-22 (Term-I)

DATE	EVENT NAME	EVENT DESCRIPTION
19/09/2021	Webinar	A webinar for the student of Chemical Engineering Department was conducted by Resource Person Mr. Thota Shivaji, Founder & CEO of Aaharya technologies (OPC) Private limited, Mumbai on “Design of Distillation Column & Heat Exchanger using Aspen Hysys Software”.
26/10/2021 to 30/10/2021	Add-On Course	A thirty hour duration Add-On course on “Career Development in Chemical Process Industries” conducted for the students of SE,TE & BE Chemical Engineering students.
20/11/2021	Sketch Competition	Sketch competition conducted on the theme “Future of Chemical Engineering”
02/12/2021	Alumni Lecture	Alumni Mr. Surhud Patil, Assistant System Engineer, Tata Consultancy Services (TCS), Chennai delivered lecture on the topic “Career Opportunities for Chemical Engineers in IT Sector”
14/12/2021	Expert Lecture	Prof. S.V.Khedkar delivered a expert lecture under Energy Club on “Energy Management in Recent Scenario” on National Energy Conservation Day.



NAME :- HARSHAD RAJENDRA PATIL
 CLASS :- S.E CHEMICAL
 ROLL NO :- 08
 TOPIC :- FUTURE OF CHEMICAL ENGINEERING.

(Handwritten signature)



Name - Kokane Yogesh Govinda
 Class - S.E Chemical
 Roll No. - 06
 WhatsApp No. - 9322952286



HOW PRINCIPLES OF GREEN CHEMISTRY CAN HELP IN PROTECT ENVIRONMENT

(Handwritten signature)

B.E. Chemical Engineering Top Ten Students in KBCNMU Dec.2021 Exam (A. Y. 2021-22)

Merit No.	Name of the Student	SGPA
1	PRASAD JAYWANTRAO PATIL	9.43
2	UDDESH RATAN MORE	9.43
3	JIVANLAL MAHADU PATIL	9.43
4	KRANTI DIPAK PATIL	9.29
5	RAVIRAJ SANJAY BORSE	9.14
6	REVATI VASANT NIKAM	9.14
7	MANAS JITENDRASING JADHAV	9.14
8	SANDIP ISHWAR BADGUJAR	9.14
9	KANCHAN RAJARAM PATIL	9.00
10	KALPESH SUBHASH PATIL	9.00

T.E. Chemical Engineering Top Ten Students in KBCNMU Dec.2021 Exam (A. Y. 2021-22)

Merit No.	Name of the Student	SGPA
1	DESALE ARPITA PRADEEP	9.43
2	MANSURI NILOFAR PARVEEN	9.43
3	PATIL JANHAVI ASHOK	9.38
4	PATIL KEDAR SUNIL	9.29
5	KINAGE VAIBHAV GAJANAN	9.29
6	JADHAV BHAGYASHRI EKNATH	9.29
7	THAKUR AMOLKUMAR RAJENDRA	9.19
8	GIRASE KAUSHAL RUPSING	9.19
9	MUDE AACHAL PRABHAKARRAO	9.14
10	SHIRAME RAHUL SUNIL	9.14

Placements 2020-21

				
Harshal Patil Unimark Remedies Ltd. Vapi	Vaibhav Patil Unimark Remedies Ltd. Vapi	Abhishek Chankapure Unimark Remedies Ltd. Vapi	Nimish Shastri Wockharst Pharmaceuticals	Roshan Tejane Wockharst Pharmaceuticals
				
Arbaz Khan Unimark Remedies Ltd. Vapi	Yograj Tayde Unimark Remedies Ltd. Vapi	Iram Javed Shaikh Resistotech Industries Ltd. Nashik	Darshan Thakare Gujarat Ambuja Export Ltd.	Prashant Patil Navitas Alpha Renewables Pvt.Ltd.

Achievements of Alumni

In the "Third Year" of "The Shram Sadhana Engineers Alumni Association (SEA) Awards" for outstanding contribution the three categories:

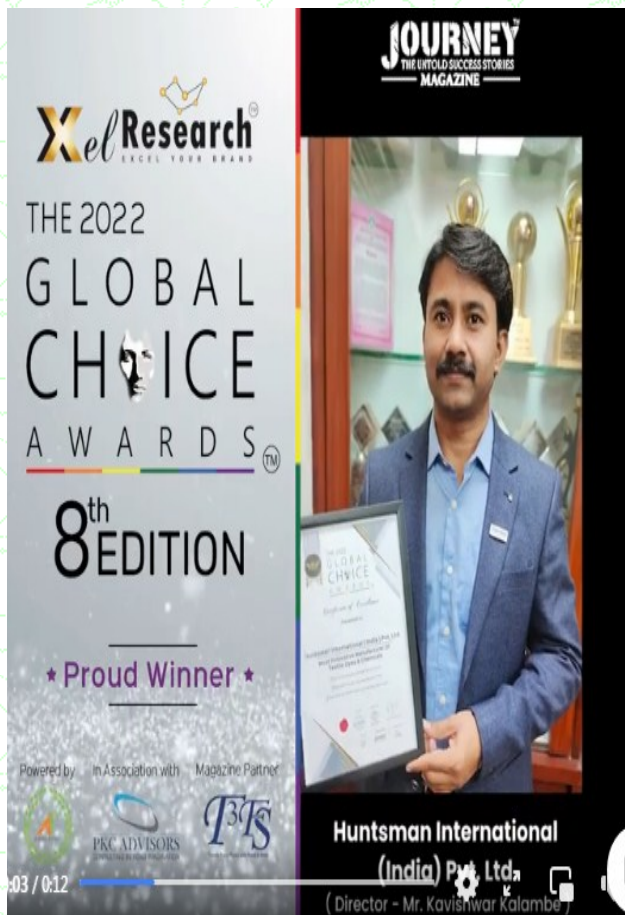
- Best Entrepreneur
- Best Engineer
- Best Social Personality

Nominations were invited from all Alumni through google form. A link of registration was shared on social media.

It was a Proud moment for Chemical Engineering Department as our alumnus "Er.Rajesh Dhabale" received Best Entrepreneur award in Male category.

Alumnae "Er.Neelambika Basavraj (Er.Prachi Shete)" received Best Entrepreneur award in Female category. They are awarded in Online Alumni Meet which was conducted on 14 Nov.2021

Mr.Kavishwar kalambe, Director, Huntsman International (India) Pvt.Ltd received award for his Outstanding & Commendable job to the Society and Mr. Chetan Ambekar, Sr. Production Engineer ,Godrej Industries Limited received awards for his outstanding leadership qualities.



CONGRATULATIONS!

Brief Report of Add on Course (Online)

“Career Development in Chemical Process Industries”

Date and Venue / Location: 26-30 October 2021, ZOOM Online Platform.

Aim / Purpose: To enable Chemical Engineering students to become Competent Professionals.

Objectives: To acclimatize students about

- production practices
- technology
- EHS (environment, health and safety) issues
- available opportunities & skills required

Participant’s Profile: 52 Students from S.E., T.E., and B.E. Chemical Engineering.

Description about the Program: As resource persons Faculty Members of Chemical Engineering Department, Dr. V.R.Diware (HOD), Dr.S.A.Thakur, Shri V.P.Sangore and Dr. N.Y.Ghare conducted 5 days (30 Hours) add on course “Career Development in Chemical Process Industries” and explained participants regarding engineering and management principles, technology for solving issues and how to become industry ready.

Feedback & Analysis: More than 90% participants rated add on course in excellent category by strongly agreeing and 10 % replied as agreed by replying to online Google feedback form.

Outcomes: The course successfully defined the use of theoretical knowledge in the practical working context by understanding various industrial manufacturing methods and requirements.

Recommendation: The orientations on various topics sow the seed of curiosity and inquisitive nature, hence are required to be conducted once in a Term every Academic year.

Dr.S.A.Thakur

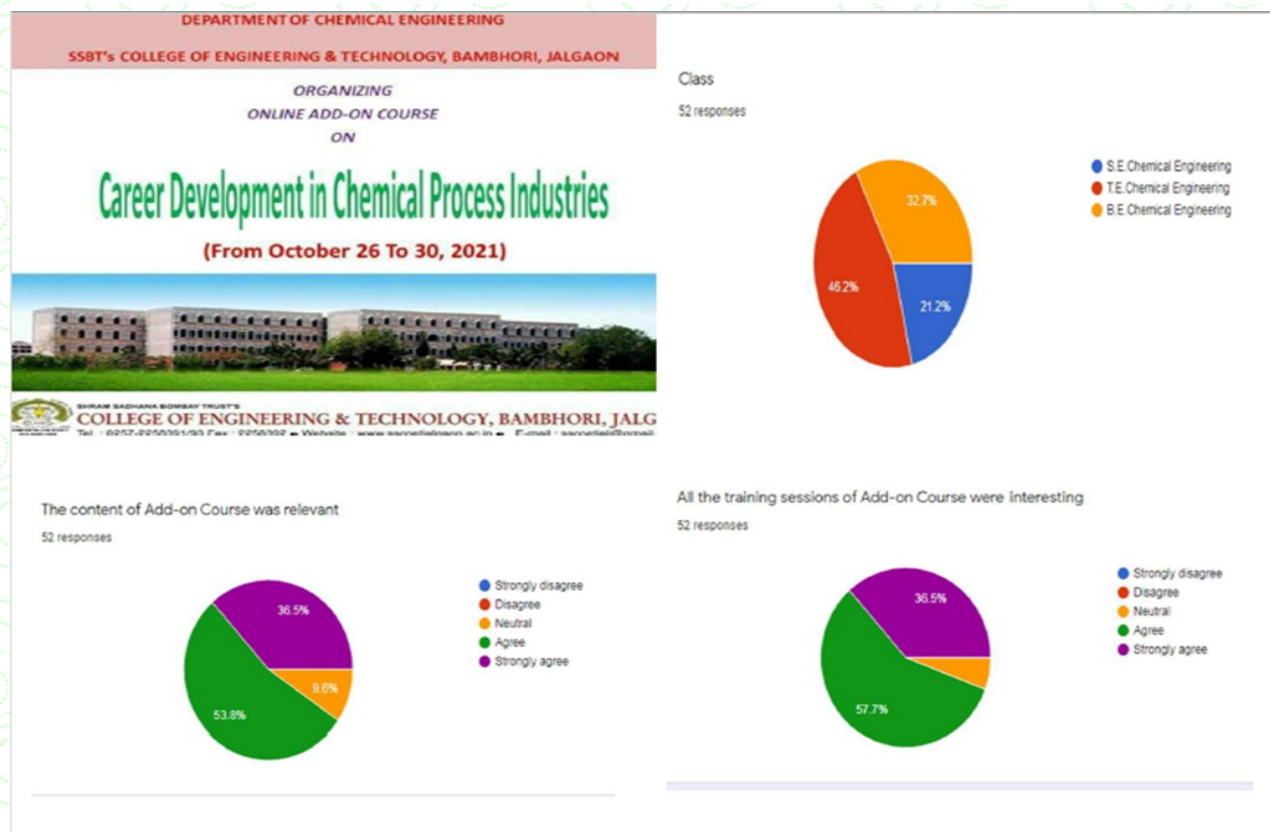
Course Coordinator

Shri V.P. Sangore

Course Coordinator

Dr.V.R.Diware

HOD (Chemical Engineering)



Future of Chemical Industry in India

India's chemical industry is extremely diversified and de-licensed (except for certain hazardous chemicals) and can be classified into speciality chemicals, bulk chemicals, agrochemicals, petrochemicals, polymers and fertilisers. The industry's product offerings encompass a vast basket of more than 80,000 commercial products.

India ranks fourth after the United States, Japan and China in production of agro-chemicals and accounts for approximately 16 percent of global production of dyes and dye intermediaries.

Industry Size

Per government data, the Indian chemical industry was worth USD 178 billion in 2019 and is expected to grow to USD 304 billion by 2025 at a compound annual growth rate (CAGR) of 9.3 percent. It is expected to attract investments of Rs 8 lakh crore by 2025.

Speciality chemicals constitute 22 percent of the total chemicals and petro-chemicals market in India. The speciality chemical industry grew from around USD 18 billion in 2014 to USD 32 billion in 2019 and is expected to be worth USD 64 billion by 2025 at a CAGR of 12.4 percent, says a report by JM Financial Research.

India's share in the global speciality chemicals market increased from 3 percent in 2015 to 4 percent in 2019. This is expected to reach 5.5 percent by 2025.

Recent Trends

The pandemic shook the chemical industry just as it did other sectors, and in H1FY22, the majority of companies witnessed a slump in their operating margins. Gross margins contracted and operating costs jumped significantly.

Gross margins were impacted as raw material prices soared because producers in China had to cut production due to energy crises (power shutdowns due to a shortage of coal) and unavailability of major raw materials due to supply chain constraints.

Operating costs were impacted by higher freight costs due to a shortage of containers and higher power and fuel costs due to a significant jump in coal and gas prices.

However, chemical producers are optimistic about the future as demand remains robust.

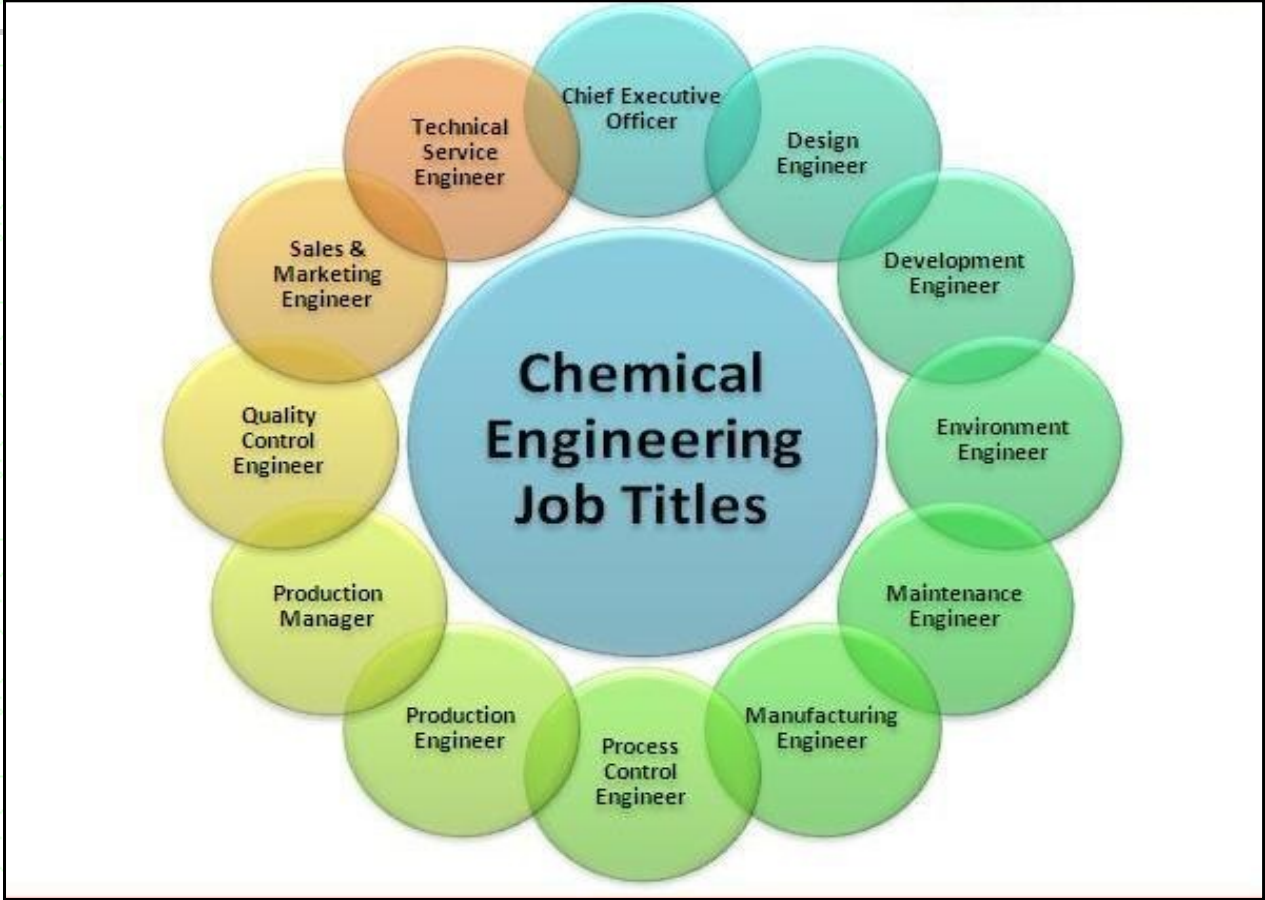
Alternative to China

There have been reports in the global press that the United States will slap investment and export sanctions against more Chinese companies, including biotechnology, health care and tech firms. Chances of more companies getting added to the banned list are high but it remains to be seen if any chemicals companies will be on the list.

Regardless, this can result in a shift in the focus of multinationals, which may want a reliable alternative to China to avoid further disruptions in supply. Indian chemical companies are well positioned to benefit from such a shift and garner a major chunk of the pie.

Indian chemical producers such as Clean Science have done process innovation while companies such as Deepak Nitrite, Navin Fluorine, Galaxy Surfactants and Fine Organics have filed several patents to improve their processes, said JM Financial. These measures put the Indian players in a good position to give their Chinese counterparts stiff competition.

Source: A report by JM Financial Research ,DEC, 2021



News Letter Committee

Faculty Members: Dr. V R. Diware (Editor) Mr. V.P.Sangore (Content Organizer)

Student Coordinators : Vaishnavi Patil (SE), Amolkumar Thakur (TE) , Jivanlal Patil (BE)



Dr.V.R.Diware
Head, Chemical Engineering



Prof. (Dr). G. K. Patnaik
Principal

