



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. XXI Jan 2022– June 2022

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*
- ♦ *Consultancy for Chemical Engineering & Allied Processes*
- ♦ *Teacher Guardian Scheme*
- ♦ *Excellent Self-Study Material*



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?

Chemical Engineering Department

The department was established in 1996 and having an intake of 30 students at four years Bachelor of Engineering in Chemical Engineering. The department is approved by AICTE, affiliated to Kavayitri Bahinabai Chaudhari North Maharashtra University (KBCNMU), Jalgaon and attained NBA accreditation in 2005, 2008 & 2014. The dept. has a team of qualified, experienced & dedicated faculty having 25 years average experience with several publications in peer reviewed National and International Journals & Conferences.

The department has 11 labs including Mass Transfer I & II, Fluid Flow Operation, Mechanical operation, Instrumentation, Process Control, Chemical Reaction Engineering, Chemical Technology, Computer lab, Project lab and Research lab. These labs are equipped with latest equipment like Cooling tower, Bubble cap distillation column, Temperature, pressure & flow control trainer, Packed bed, Stirred tank & Plug flow reactors. The Computer lab is equipped with software's like Aspen HYSYS while Project & Research labs are equipped with photo catalytic reactor, Cone penetrometer apparatus, FTIR Spectrophotometer etc. The dept. also has facilities for testing vegetable oils, detergents & effluents & provides consultancy in related areas. The department has smart classrooms and good collection of books and project reports in departmental library.

The department is actively encouraging students to undertake research – oriented & Start – Up related projects. The faculty provides technical assistance & guidance as well as facilitating financial assistance through various schemes. The department conducts expert lectures, seminars / Add-on courses regularly to update students about latest trends & developments in different areas of studies. The department has organized several International conferences. The department has signed MoU with institutes & industry for providing Industrial visits / training to students. The students are encouraged to participate in National / State level events like Dipex project competition, IChE events.

The department has completed 5 projects (total Rs 5 lakh funded by DST), 2 projects (total Rs 2,62,000/- funded by UGC) & 1 project (Rs 1,52,000/- funded by SSRPS). Our students are regular recipients of Gold Medal from KBCNMU, have received grants from funding agencies and won awards in state level project competitions. Students are facilitated and get successfully placed in reputed organizations like Reliance Industries, Lupin Limited, Thermax Limited, Gujrat, Ambuja Exports, Macleods Pharmaceuticals, etc., while several students are pursuing higher studies/working overseas.

All the laboratories of the department are recognized research lab for PhD by Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon.

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

DATE	EVENT NAME	EVENT DESCRIPTION
03/03/2022 to 09/03/2022	Add-on Course	Thirty hour duration Add-on Course on “Emerging Trends in Chemical Engineering” conducted for TE & BE Chemical Engineering students.
05/04/2022	Mock Drill of Fire Extinguisher	Mock drill of fire extinguisher for the students of chemical & biotechnology department conducted at open space of college campus
18/04/2022	Traditional Day	Traditional Day observed by departmental students as a celebration of India's diverse culture.
22/04/2022	Group Day	Group day was observed, in which groups of student & faculty wore similar themed outfits.
25/04/2022	Saree & Tie Day	As a diverse offerings of culture, saree day & tie day celebrated by the students of Chemical Engineering.
26/04/2022	Fresher's Welcome & Farewell	Welcome for F.E.Chemical Students and Direct Second Year admitted Students & also Farewell to Final Year batch (2021-22) was organized.
19/05/2022 to 25/05/2022	Add-on Course	Thirty hour duration Add-on Course on “Analysis of Waste Water by Various Chemical and Biochemical Laboratory Methods” conducted for SE Chemical & Biotechnology Engineering students.
30/06/2022	Tree Plantation	Tree plantation conducted at SSBT's COET Campus



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

Merit No.	Name of the Student	SGPA
1	PATIL VAISHNAVI SANJAY	9.65
2	PATIL HARSHAD RAJENSRA	9.50
3	SHENDE GAURAV SATISH	9.50
4	MORIS VAIBHAV PRAKASH	9.45
5	PAWAR HIMANSHU BHARATSING	9.30
6	KOKANE YOGESH GOVINDA	9.30
7	BHADANE NARENDRA DYANESHWAR	9.30
8	CHAUDHARI PRAGATI PRAKASH	9.25
9	ZAMBARE DEVENDRA NARENDRA	9.15
10	RAJPUT TANMAY SURESHSING	9.00

Class wise Toppers of Chemical Engineering in KBCNMU Dec.2021 Exam

Class	Name of the Student	SGPA
S.E.	PATIL VAISHNAVI SANJAY	9.65
T.E.	DESALE ARPITA PRADEEP	9.43
B.E.	PRASAD JAYWANTRAO PATIL	9.43

Milestone 2K22

Event	Participants	Title	Prize Distribution
Paper Presentation M2K22	Amolkumar Thakur & Kedar Patil	Synthesis of Iron Oxide Nanoparticles (First Prize)	 A photograph showing a man in a white shirt presenting a certificate to a man in a yellow shirt. A woman in a white shirt stands next to the man in the yellow shirt. A banner in the background reads 'WELCOME MILESTONE 2K22 Department of Chemical Engineering & Technology'. A GPS overlay shows the location: Bambhori Pr. Chandsar, Maharashtra, India, with coordinates 2083+245, Bambhori Pr. Chandsar, Maharashtra 425002, India, Lat 21.01455°, Long 75.502939°, and timestamp 19/04/22 04:09 PM.
	Suyog Patil & Arpita Desale	Paper pulp from Groundnut Shell (Second Prize)	 A photograph showing a man in a white shirt presenting a certificate to a woman in a white shirt. A man in a white shirt stands next to the woman. A banner in the background reads 'WELCOME MILESTONE 2K22 Department of Chemical Engineering & Technology'. A GPS overlay shows the location: Bambhori Pr. Chandsar, Maharashtra, India, with coordinates 2083+245, Bambhori Pr. Chandsar, Maharashtra 425002, India, Lat 21.014508°, Long 75.502934°, and timestamp 19/04/22 04:08 PM.

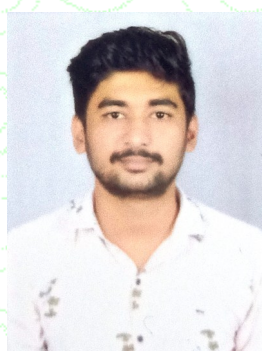
Placements 2021-22*



Gaurav Pardeshi
Infosys



Altaf Sheikh
Infosys



Uddesh More
Sidarth Carbochem
Chemicals, Jalgaon



Kalpesh Bawa
Pacific Organics Pvt. Ltd,
Mumbai

Congratulations!

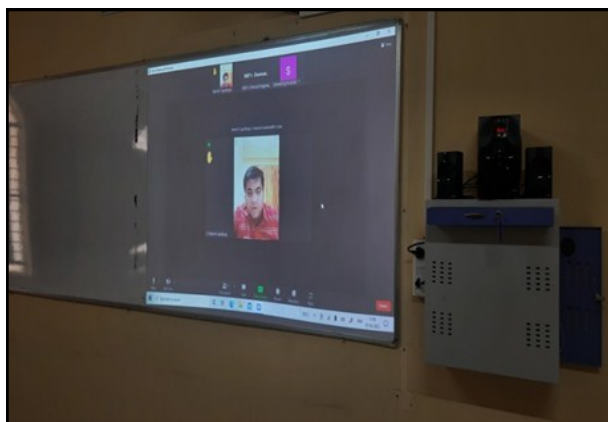
Add-on Course on “Emerging Trends in Chemical Engineering”

Department of chemical engineering conducted full time one week add on course on “Emerging Trends in Chemical Engineering” during 03-09 March, 2022.

As resource persons faculty members of Chemical Engineering Department Dr. V.R.Diware (HOD), Dr.S.A.Thakur, Mr. V.P.Sangore, Dr. N.Y.Ghare, Ms. S.S.Baniya and Alumni Mr.Ajey Chavan, Mr. Manish Upadhyay explained participants regarding newer technologies for solving energy, environment and safety issues.

Topics of Add on Course:

- ◆ Advances in Piping Design
- ◆ Recovery of Inorganic Acids from Pickling Wastewater
- ◆ Energy Efficiency and Chemical Industry
- ◆ Fuel Cell Technology
- ◆ Evaporation in Food Processing & Hygienic Design Aspect
- ◆ Nanoparticles and Their Applications in Foam Stabilization
- ◆ Multiphase Reactions
- ◆ Chemical & Petrochemical Market Scenario
- ◆ Nanocatalysis: Applications in Chemical Industry
- ◆ Hazard and Operability (HAZOP)
- ◆ Cleaner Technology and its Applications in Chemical Production
- ◆ Sewage Treatment by Membrane Bioreactor



The course content signifies vital role of emerging trends in the development of energy efficient and environment friendly production processes to the participants. More than 90% participants rated add on course in excellent category by strongly agreeing regarding relevant content and applicability of the course for their overall development.

Add-on Course on “Analysis of Waste Water by Various Chemical and Biochemical Laboratory Methods ”

Department of chemical & biotechnology engineering jointly conducted one week (30 Hours) add on course on “Analysis of Waste Water by Various Chemical and Biochemical Laboratory Methods”.

As resource persons faculty members of Chemical Engineering Department Dr. N.Y.Ghare, Mr. V.P.Sangore, Ms. S.S.Baniya and faculty members of Biotechnology Engineering Mrs.Sarika S.Pawar, Mr.Jayant Parpalliwar, Mr. Swapnil Khillare explained participants regarding chemical and biochemical instrumental techniques of analysis of waste water.

Participants also underwent hands on training on instruments like pH meter, Conductivity meter, Colourimeter, DO Meter, TDS meter etc. for waste water analysis.

Topics of Add on Course:

- ◆ Introduction to Chemical and Biological Methods of Analysis
- ◆ Hardness & pH Analysis of Waste Water
- ◆ Colorimetric & Conductometric Techniques of Analysis
- ◆ Conductance Measurement & Concentration Analysis of Waste Water
- ◆ DO and BOD Analysis of Waste Water
- ◆ Analysis of Samples for DO and BOD of Waste Water
- ◆ COD of Waste Water
- ◆ Analysis of Samples for COD of Waste Water
- ◆ Biological Examination of water: Algae, Bacteria and Protozoa
- ◆ Biochemical Activities of Bacteria in Waste Water
- ◆ Water Pollution and Biological Treatment of Wastewater
- ◆ Biological Process for Wastewater Treatment



Event Snaps

Tree Plantation



Mock Drill of Fire Extinguisher



Milestone/ Project Presentations



Cultural Day's Celebration



Fresher's Welcome



Why are chemical engineers commonly called 'Universal Engineers'?

- Since they possess in-depth knowledge of engineering and chemistry, they combine the two subjects in jobs across industries like the oil and gas industry, food industry, energy industry, chemical, and related products, utility companies, pharmaceuticals, and government departments. Their work mainly involves converting natural or waste materials into useful or less harmful chemical products.

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

