



DEPARTMENTAL NEWSLETTER - CHEMICAL ENGINEERING
VOLUME-1, Issue-02
(January –April 2022)

(Ranking of the best 100 tech-enabled
Engineering Colleges in the Country)

Ranking

53 (All India), 42 (Private Colleges), 07 (west Zone)



Volume 1: Issue 02 (January to April -2022)

DEPARTMENTAL NEWSLETTER - CHEMICAL ENGINEERING

VOLUME 1: ISSUE 02 (JANUARY TO APRIL -2022)

Academic Year 2021-22

Editorial Team

Student Editor: Miss Pallavi Radaye

Faculty Editor: Prof. Nitish D. Galande

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Vision of the Chemical Engineering Department:

“Produce employable graduates through a multidisciplinary approach, equipping them with chemical engineering knowledge and research skills, for the welfare of society.”

Mission of the Department

M1: Impart knowledge and understanding of the diverse fields of chemical engineering profession through curriculum.

M2: Develop chemical engineering professional and research skills to become technically competent professionals.

M3: Inculcate the importance of social and life-long learning.

Program Educational Objectives (PEOs)

PEO1: Graduates of the program will apply chemical engineering principles in engineering practice.

PEO2: Graduates of the program will have technical or professional careers in chemical engineering or in the diverse fields of chemical engineering such as biochemical engineering, energy and environmental engineering etc.

PEO3: Pursue higher study and / or continuously upgrade the knowledge with personal and professional growth for collective advancement of society.

Programme specific outcomes (PSOs)

POS1: Create Chemical Engineering solutions for problems and processes while taking into account separation operations, reaction kinetics, environmental issues, waste treatment and, modelling and simulation.

PSO 2: Foster the industrial chemical production process through efficient design and modifications by applying the principles of Chemical Engineering.

PSO 3: Demonstrate responsible professional behaviour by integrating ethical considerations, promoting safety, communicating effectively, and engaging in

Program Outcomes (POs) are as follows:

1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, and engineering fundamentals to solve complex chemical engineering problems.
2. **Problem Analysis:** Identify, formulate, and analyze complex engineering problems to reach substantiated conclusions using principles of mathematics, natural sciences, and engineering sciences.
3. **Design/Development of Solutions:** Design solutions for complex engineering problems that meet specified needs with appropriate consideration for public health, safety, and environmental concerns.
4. **Investigation of Complex Problems:** Conduct research-based investigations, including designing experiments, analyzing data, and synthesizing information to provide valid conclusions.
5. **Modern Tool Usage:** Select, apply, and adapt appropriate techniques, resources, and modern engineering tools, including prediction and modeling, to solve complex engineering activities.
6. **The Engineer and Society:** Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues relevant to professional engineering practice.
7. **Environment and Sustainability:** Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics, responsibilities, and norms of the engineering practice.
9. **Individual and Team Work:** Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and society at large through reports, presentations, and documentation.
11. **Project Management and Finance:** Demonstrate knowledge of engineering and management principles to manage projects in multidisciplinary environments.
12. **Life-long Learning:** Recognize the need for, and engage in, independent and lifelong learning in the broadest context of technological change.

Message from the Principal



Dear Readers,

It gives me immense pleasure to present **Volume-1, Issue-02** of the **Departmental Newsletter – Chemical Engineering** for **January to April 2022**. This inaugural edition marks a significant milestone in documenting the academic, research, and co-curricular achievements of our students and faculty.

The **Department of Chemical Engineering** has always been committed to fostering **innovation, industry collaborations, and excellence in education**. The efforts taken by our faculty and students in research, technical advancements, and skill development are commendable. Participation in various **guest lectures, workshops, and national-level competitions** reflects the department’s dedication to holistic learning.

I sincerely appreciate the **editorial team** for their hard work in bringing this issue to life. I encourage students to stay curious, explore new opportunities, and continue striving for excellence in their academic and professional journeys.

Best wishes to the entire Chemical Engineering team for continued success!

Dr. Sandip Gharat
Principal

Message from the Head of the Department



Dear Readers,

It is with great pride that I present **Volume-1, Issue-02** of the **Departmental Newsletter – Chemical Engineering** for **January to April 2022**. This newsletter serves as a platform to showcase the **academic excellence, research endeavors, industrial collaborations, and extracurricular achievements** of our students and faculty members.

The **Department of Chemical Engineering** is committed to fostering an **innovative and industry-oriented learning environment**. Our faculty members continuously strive to impart knowledge that bridges the gap between academia and industry, ensuring that our students are well-prepared for the challenges ahead. Participation in **guest lectures, technical workshops, research publications, and national-level events** highlights the dedication of our students toward professional growth.

I extend my heartfelt gratitude to the **editorial team** for their efforts in compiling this issue. Let us continue working together to achieve new heights of success.

Best Regards,

Dr. Shyam P. Tekade

Head, Department of Chemical Engineering

Message from the Faculty Editor



Dear Readers,

It is my pleasure to present **Volume-1, Issue-02** of the **Departmental Newsletter – Chemical Engineering** for **January to April 2022**. This newsletter is a testament to the **hard work, dedication, and achievements** of our students and faculty members in the field of Chemical Engineering.

This edition highlights **research contributions, industrial collaborations, guest lectures, student achievements, and extracurricular activities** that define our department's commitment to academic and professional excellence. It is inspiring to witness the enthusiasm of our students in exploring new knowledge, participating in technical events, and excelling in various domains.

I extend my sincere gratitude to the **editorial team, faculty, and students** for their valuable contributions in making this newsletter possible. I hope this publication serves as an inspiration for continuous learning, innovation, and success.

Best Regards,

Prof. Nitish D. Galande

Faculty Editor

Prof. Nitish D. Galande

Faculty Editor

Message from the Student Editorial Coordinator



Dear Readers,

It is with great enthusiasm that I present **Volume-1, Issue-02** of the **Departmental Newsletter – Chemical Engineering** for **January to April 2022**. This newsletter is a reflection of the **hard work, dedication, and achievements** of our students and faculty members. It highlights the **academic, research, industrial, and extracurricular** activities that define our department's commitment to excellence.

Being a part of this editorial journey has been a truly enriching experience. I am grateful for the opportunity to work alongside **talented faculty members, students, and contributors** who have made this issue possible. Their efforts in research, innovation, and professional growth deserve to be celebrated.

I extend my heartfelt thanks to everyone involved in bringing this newsletter to life. May this serve as a source of motivation for all students to **strive for excellence and make meaningful contributions** to the field of Chemical Engineering.

Best Regards,

Miss. Pallavi Radaye

Student Editorial Coordinator

Volume 1: Issue 02 (January to April -2022)

DEPARTMENTAL NEWSLETTER - CHEMICAL ENGINEERING VOLUME 1: ISSUE 02 (JANUARY TO APRIL -2022)

Academic Year 2021-22

Editorial Team

Student Editor: Miss Pallavi Radaye

Faculty Editor: Prof. Nitish D. Galande

SHODH 2022: A PLATFORM FOR INNOVATION AND RESEARCH

The **Chemical Engineering Department** successfully participated in **Shodh 2022**, held on **26–27 March 2022**. This event provided an excellent platform for **SE, TE, and BE students** to showcase their research, innovative ideas, and technical knowledge.

Shodh 2022 aimed to **foster a research-driven mindset** among students, encouraging them to explore advancements in **chemical engineering and related fields**. The event featured **paper presentations, technical discussions, and knowledge-sharing sessions**, allowing participants to interact with industry experts and academicians.

The participation of our students in such a prestigious event reflects their **dedication, enthusiasm, and commitment to academic excellence**. Their research contributions not only enhance their learning experience but also contribute to the growth of the field. We encourage students to continue engaging in such **technical forums** to develop their research capabilities and broaden their professional horizons.

GUEST LECTURE ON "EXPECTATIONS OF CHEMICAL INDUSTRY FROM FRESHERS"

The **Chemical Engineering Department** organized an insightful guest lecture on **8th February 2022** for **BE students**, featuring **Col. Digvijay Katkar, Vice President – Project & HR, Aastrid Life Science Pvt. Ltd., Mahad**.

The session focused on the **expectations of the chemical industry from fresh graduates**, providing students with valuable insights into **industry requirements, skill sets, and career opportunities**. Col. Katkar emphasized the importance of **technical knowledge, problem-solving abilities, adaptability, and professional ethics** in excelling within the chemical sector.

Students gained firsthand knowledge of the **practical challenges, industrial trends, and essential competencies** required for a successful career. The session also included an interactive Q&A, allowing students to clarify their doubts regarding **job prospects, industry standards, and professional growth**.

The department extends its gratitude to **Col. Digvijay Katkar** for sharing his expertise and guiding students towards a **bright future in the chemical industry**.

LECTURE SERIES ON "MINISTRATION IN CHEMICAL INDUSTRIES"

The **Chemical Engineering Department** successfully organized a **three-session lecture series** on **8th, 15th, and 22nd February 2022**, delivered by **Ms. Mahrukh, PMRF, IIT Bombay**. The sessions were exclusively designed for **BE students**, providing in-depth knowledge on various aspects of **ministration in chemical industries**.

Throughout the lectures, **Ms. Mahrukh** elaborated on the **role of process management, safety protocols, and operational efficiency** in chemical industries. She discussed **industry best practices, risk assessment methodologies, and innovative solutions** that enhance industrial performance and sustainability.

The interactive nature of the sessions allowed students to **engage in discussions, ask questions, and understand real-world applications** of chemical engineering concepts. Her expertise and insights helped students bridge the gap between **academic learning and industry expectations**.

The department extends its heartfelt appreciation to **Ms. Mahrukh** for her valuable contribution and guidance in shaping future chemical engineers.

NATIONAL SCIENCE DAY CELEBRATION – 28TH FEBRUARY 2022

The **Chemical Engineering Department** enthusiastically celebrated **National Science Day** on **28th February 2022**, with active participation from **SE, TE, and BE students**. This event aimed to **honor the contributions of Indian scientists** and foster scientific curiosity among students.

The celebration featured **seminars, technical presentations, and interactive discussions** highlighting the importance of science and technology in shaping modern industries. Students showcased **innovative projects, posters, and models**, emphasizing advancements in chemical engineering and sustainable solutions for industrial challenges.

A special session was conducted on "**The Role of Science and Innovation in Chemical Industries**", where faculty members and guest speakers shared insights on emerging trends, research opportunities, and industrial applications.

The event was a **great success**, encouraging students to explore **new ideas, engage in research, and contribute to the scientific community**.

ALUMNI LECTURE ON "PREPAREDNESS FOR GATE EXAM" BY MR. SANDESH MORE

The **Chemical Engineering Department** organized an **Alumni Lecture** on **22nd January 2022**, featuring **Mr. Sandesh More**, who provided valuable insights on **GATE exam preparation**. The session was attended by **SE, TE, and BE students**, eager to understand the strategies for excelling in this competitive examination.

Mr. More shared his **firsthand experience** of preparing for the **Graduate Aptitude Test in Engineering (GATE)**, discussing key aspects such as **time management, subject-wise study plans, and effective problem-solving techniques**. He also provided **guidance on reference materials, mock tests, and revision strategies**, helping students enhance their preparation.

The interactive session allowed students to **clarify doubts, gain motivation, and develop a structured approach** to succeed in the GATE exam.

The **department extends its gratitude** to Mr. Sandesh More for his valuable contribution and looks forward to more such enriching alumni interactions.

STUDENT ACHIEVEMENT: CHAVAN SHANTANU SECURES FIRST RANK AT SHODH 2022

We are delighted to announce that **Chavan Shantanu**, a talented student of the **Chemical Engineering Department**, has secured **First Rank** in **Shodh 2022**, a

National Level Project Presentation Competition held at **GIT Level** on **19–20 March 2022**.

Shodh is a prestigious platform that encourages students to **showcase their innovative research and technical expertise**. Chavan's outstanding project presentation demonstrated **exceptional analytical skills, creativity, and a deep understanding of Chemical Engineering concepts**. His achievement reflects **dedication, perseverance, and passion for research and innovation**.

The department extends its **heartiest congratulations** to **Chavan Shantanu** for this remarkable accomplishment. We encourage all students to **participate in such events**, enhancing their **technical knowledge and professional growth**.

Keep up the excellent work, and continue to strive for academic and research excellence!

STUDENT ACHIEVEMENT: GURAV NANDAKUMAR SECURES FIRST RANK AT SHODH 2022

We are proud to announce that **Gurav Nandakumar**, a dedicated student of the **Chemical Engineering Department**, has secured **First Rank** in **Shodh 2022**, a **National Level Project Presentation Competition** held at **GIT Level** on **19–20 March 2022**.

Shodh is a prestigious event that provides a platform for students to **present their innovative research and technical ideas**. Gurav's exceptional project presentation highlighted **his analytical skills, problem-solving abilities, and deep understanding of Chemical Engineering concepts**. His achievement is a testament to his **hard work, determination, and passion for research**.

We extend our **heartfelt congratulations** to **Gurav Nandakumar** for this outstanding accomplishment. The department encourages all students to participate in such competitions, **fostering knowledge enhancement, technical growth, and professional development**.

Keep up the great work, and continue to excel in research and innovation!

STUDENT ACHIEVEMENTS: FIRST RANK AT SHODH 2022

We are thrilled to announce that our students **Chavan Shantanu, Gurav Nandakumar, and Mhatre Akanksha** secured **First Rank** in the **Shodh 2022 – National Level Project Presentation Competition**, held at **GIT Level on 19–20 March 2022**.

Shodh 2022 is a prestigious platform that recognizes outstanding research and innovation among budding engineers. Our students showcased their technical expertise, problem-solving skills, and innovative approach through their research presentations, earning them this remarkable achievement.

Their success highlights the dedication, hard work, and passion for excellence that our department nurtures. We congratulate them on this well-deserved recognition and wish them continued success in their future endeavors.

Keep aiming high and inspiring others!

STUDENT ACHIEVEMENT: KAMLESH DIGASKAR AT CHEMCONFLUX 22

We are proud to announce that **Kamlesh Digaskar**, a dedicated student of the Chemical Engineering Department, successfully presented a research paper at the **International Conference on Technological Interventions for Sustainability – ChemconFlux 22**, held at **Motilal Nehru National Institute of Technology (MNNIT) Prayagraj from 14–16 April 2022**.

ChemconFlux 22 is a prestigious international platform where researchers and students share innovative ideas, advancements, and sustainable solutions in chemical engineering and allied fields. Kamlesh's presentation demonstrated in-depth knowledge and a research-driven approach, making a mark among scholars and industry professionals.

His participation reflects the department's commitment to fostering research excellence and innovation. We extend our heartfelt congratulations and encourage all students to actively engage in such esteemed conferences.

Keep up the great work and continue striving for excellence!

STUDENT ACHIEVEMENT: PRATHAMESH CHAVAN AT CHEMCONFLUX 22

We are delighted to share that **Prathamesh Chavan**, a student of the **Chemical Engineering Department**, successfully presented a research paper at the **International Conference on Technological Interventions for Sustainability – ChemconFlux 22**, held at **Motilal Nehru National Institute of Technology (MNNIT) Prayagraj from 14–16 April 2022**.

ChemconFlux 22 is a renowned international platform that brings together researchers, academicians, and industry professionals to discuss cutting-edge innovations and sustainable advancements in chemical engineering. Prathamesh's participation highlights his dedication to research and academic excellence, making a significant contribution to the department's legacy of innovation.

We congratulate **Prathamesh Chavan** on this remarkable achievement and encourage all students to take inspiration from such opportunities to enhance their knowledge and technical expertise.

Keep striving for excellence!

STUDENT ACHIEVEMENT: PRATIK SUTAR AT CHEMCONFLUX 22

The **Chemical Engineering Department** is delighted to acknowledge the participation of our students in the **International Conference on Technological Interventions for Sustainability – ChemconFlux 22**, hosted by **Motilal Nehru National Institute of Technology (MNNIT) Prayagraj from 14–16 April 2022**.

Our students who presented research papers at this esteemed conference include:

- **Kamlesh Digaska**
- **Prathamesh Chavan**
- **Pratik Sutar**
- **Aniket Kumbhar**
- **Deep Velhal**

Their contributions highlight the department's commitment to fostering research and innovation. Participating in such high-level conferences provides invaluable exposure, knowledge enhancement, and networking opportunities with experts in the field.

We commend their dedication and encourage all students to engage in research and academic pursuits that contribute to the advancement of Chemical Engineering.

Congratulations and best wishes for future endeavors!

STUDENT PARTICIPATION IN PRESTIGIOUS CONFERENCES – AZEOTROPY 2021 & SCHEMCON 2022

The **Chemical Engineering Department** is proud to acknowledge the outstanding participation of our students in national-level conferences, demonstrating their commitment to academic excellence and professional growth.

AZEOTROPY 2021 – IIT BOMBAY (8-22 MARCH 2022)

- **Ankit Pawar** – Served as a **Campus Ambassador**, representing our institution at this esteemed chemical engineering event.
- **Gauri Kanade** – Participated in the **Luminescence – Lecture Series**, gaining insights from leading experts.

SCHEMCON 2022 – NIT WARANGAL (23-24 SEPTEMBER 2022)

- **Pawankumar Prasad** – Presented a **research paper**
- **Prasad Chavan** – Presented a **research paper**
- **Gautami Narhari** – Presented a **research paper**

Their active participation in such prestigious events enhances both their knowledge and our department's reputation. We commend their efforts and encourage all students to seize similar opportunities for learning and networking.

Congratulations to all participants!

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EDITORIAL TEAM

- **Editor-in-Chief:** Prof. Nitish Galande
- **Student Coordinators:** MS. Vaishnavi Deshmukh
Department of Chemical Engineering
Academic Year 2022-23.

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