AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
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The newsletter of Department of Chemical Engineering

CHEMIXIR

December 2019 to May 2020 **Month Of Release : May 2020**

Principal: Dr. D. S. Bormane | Head of Dept.: Dr. P.N.Dange | Editor: Prof. P. S. Tadkar

From Principal's Desk:

It is good to see the latest edition of newsletters of Chemical Engineering Department. On this occasion of publication of this newsletter I introduce to you an entirely new approach of learning in our college. An approach, where traditional methods of learning go hand in hand with modern learning techniques, keeping up with the current trends and technology.

We facilitate our students to excel academically and to develop their personalities in diverse fields. To this end, we have complemented academics with other developmental activities such as performing arts, sports, hobbies and technical clubs, to name a few.

Each student is encouraged to explore their areas of interest and to develop their talent to the maximum. Our teaching staff is dedicated and knowledgeable in their subjects. They have a passion to pass on this enthusiasm to each student and to inculcate in them the spirit of curiosity and learning.

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Things were never in their places,
There were still some lost pieces.
The puzzle was about to be completed,
But their fates cheated.

They were meant to be together,
To share memories and glories forever.
Their love was inevitable,
The time spent was memorable.

But the love birds were separated,
And all memories faded.
Ironically, their fates brought them again,
To the same story which once began.

Suyasha Ghatol

From the Editor's Desk….

It gives us great pleasure to hand over to you "CHEMIXIR" the newsletter of Chemical engineering department.

The department has 19 staff members and more than 220 students. All of us are involved in number of activities and working for development of the department. The Newsletter is a common platform to showcase the talents of the department. It also provides for showcasing of achievements and efforts taken by one and all which contribute towards department strengths. It is our attempt to get maximum contribution from staff and students to come together and interact through this newsletter. We try to pick the moments of guest lectures conducted by department, various industry visits carried out, competitions organized, achievements and participation by students and staff. We hope this newsletter will help in its own way to achieve our goal & realize our vision progressively.

Hope you will find this newsletter informative. Your suggestions for improvement in the newsletter are welcome.

Editors

1. Programmes:

UG : BE (Chemical Engg.)
PG : ME (Chemical Engg.)

2. Faculty position:

Professors :	02
Asso. Professors	: 01
Asst. Professors	: 10

3. Supporting Staff :06

From HOD's Desk…

Department of Chemical Engineering was established in the year 1996, with an intake capacity of 40 students for UG which was increased to 60 students in 1997. The PG program was started in 2011 with an intake of 18 students. The Department has well-qualified and experienced faculty with an average experience of 8-10 years. Faculty is also involved in research & professional activities inside & outside the campus. They are encouraged to upgrade their knowledge and qualifications The department was successful in giving consistently good academic results in last three years and motivating the students to involve in extra curricular and co-curricular activities like paper presentation, Project competition leading towards all-round development of our students. The Department has well-equipped laboratories with sophisticated equipment. We have organized number of workshops and seminars for the students and staff.

इतनी सी है जिंदगी

वो कामयाबी से हमारे जलते गएं ।
पर हम नयी नयी उँची बुलंदियों छूते रहें।किस्मत ने लिखा था हमारी कामयाबी को छूना ।
फिर भी अहंकार को कभी अपना न होने देना।
केहता रहा दिल हमारा आ गर्व से कभी फुलें ।
थोड़ीसी कामयाबी से ना इतना झूलों ।
आखिर आता ही क्या है अपने साथ।
अगर जाना ही है उपर खाली हाथ।

Shrikesh Jagdale

Moments

Department of Chemical Engineering in association with Spoken Tutorial IIT B organized online National Level Faculty Development Program on Process Simulation Using DWSIM during 28 April to 03 May 2020 for Teaching and Non Teaching Staff. DWSIM is an open-source CAPE-OPEN compliant Chemical Process Simulator. It allows the user to conduct experiments and analyze data using advanced models and operations. The simulator allows Chemical Engineering students and Chemical Engineers to run the simulations and get a better understanding on a phenomenon. DWSIM is capable of generating distillation curves, petroleum characterizations and helps us to create new compounds that can be used in experiments, along with the existing ones. It had more than 50 Participants**.(Coordinator: Mr Pravin S Tadkar**)

द्वंद्व

रस्त्यावरच्या सिग्नल वरती मी भूक पळताना पाहिलिय.
पोटासाठी त्याने आयुष्य लाल हिरव्या दिव्या मध्येच वाहिलंय.
अंगावरती फाटलेला सदरा, पोटामध्ये उसवलेली भूक होती.
तरीही डोळ्यामध्ये कातर कातर स्वाभिमानाची रेख होती.
दुभाजकाच्या कट्यावरती भिविष्याचा वेध होता.
चिमुकल्या डोळ्यात सकाळपासून भाकरीचा शोध होता.
काचेच्या त्या सीमेवर जिवनाची खरी मेख होती.
काचेच्या आतून अमिरी तर बाहेरून गरिबी जळत होती.
आयुष्याच्या या द्वंद्वामध्ये मन उदास होते.
सिग्नल सोडून गेल्यावर त्यांचे आयुष्य पुन्हा माझ्यासाठी आभास होते.

Ajay Katwate

Workshop conducted on 12 June 2020 from 7.00 pm – 8.30 pm on Entrepreneurship Development and instead of job, do startup- Workshop for SE/ TE and BE Chemical (19 participants)

Speaker:- Mr. Hasit Trivedi, Associate with AERF & Founder member of renewable energy consultancy, ARENEC, Pune

Student Coordinator: - Ms. Dikshita Mehata and Ms. Shivani Ninal, AIChE Students' Chapter

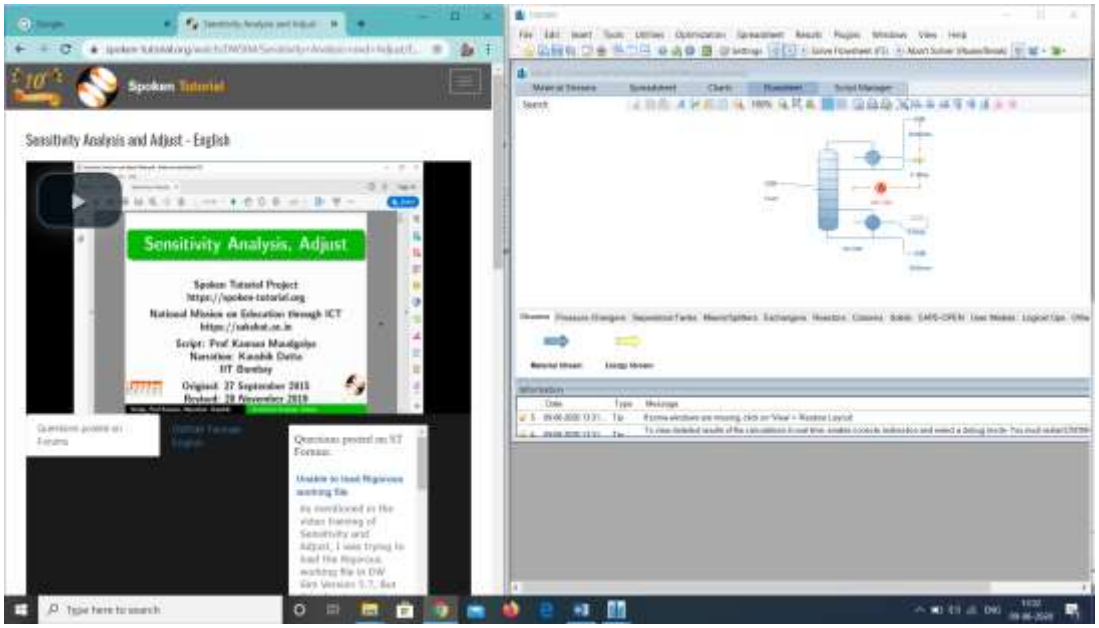
Faculty Coordinator: Mr. P M Warke

Faculty Advisor: Dr P N Dange

Zoom App Link: https://uso2web.zoom.us/j/81091827993 Password: 322159

Department of Chemical Engineering, AICHE Students Chapter in association with Spoken Tutorial IIT B organized online National Level one Week Workshop on Biogas Plant 20 to 27 May 2020 for Students, Teaching and Non Teaching Staff. Biogas refers to a mixture of different gases produced by the breakdown of organic matter in the absence of oxygen. Biogas can be produced from raw materials such as agricultural waste, manure, plant material, sewage and food waste. It is a renewable energy source and in many cases exerts a very small carbon footprint. Biogas is primarily methane (CH_4) and carbon dioxide (CO_2) and may have small amounts of hydrogen sulfide (H_2S), moisture and siloxanes. This energy release allows Biogas to be used as a fuel; it can be used for any heating purpose and cooking. To build a family type Biogas plant, a 12 ft by 8 ft of land is required. Once constructed, the lifespan of a Biogas plant is approximately 25 years. Biogas plants are easy to use and the maintenance is quite simple. The minimum cost for building a Biogas plant is between Rs 20,000 to Rs 23,000/-. This amount may, however, vary from place to place. The Government also provides subsidies for building a Biogas plant. A nutrient-rich natural manure is obtained from the slurry generated by the Biogas plant. The wet slurry waste can be directly used as manure in the fields. The slurry can be dried and powdered and stored for use later in the fields. Total Participation was 350. **(Coordinator: Mr Pravin S Tadkar**)

Department of Chemical Engineering, AICHE Students Chapter in association with Spoken Tutorial IIT B organized online National Level 5days Workshop on DWSIM 11 to 15 May 2020 for Students. DWSIM is an open-source CAPE-OPEN compliant Chemical Process Simulator. It allows the user to conduct experiments and analyze data using advanced models and operations. The simulator allows Chemical Engineering students and Chemical Engineers to run the simulations and get a better understanding on a phenomenon. DWSIM is capable of generating distillation curves, petroleum characterizations and helps us to create new compounds that can be used in experiments, along with the existing ones. It had more than 50 Participants. **(Coordinator: Mr Pravin S Tadkar**)



Sr. No.	Name of Student	Achievements
1	Ketan Suresh Patil	1. Coursera - Oil and Gas Course Completed
2	Pranav Rupchand Pawar	1. Completed DWSIM workshop organized by AICHE Student chapter, AISSMSCOE, Pune
3	Siddhi Vikas Pedamkar	1. Dexters Lab - MINDSPARK Runner Up organized by COEP, Pune 2. Completed DWSIM workshop organized by AICHE Student chapter, AISSMSCOE, Pune 3. Completed BIOGAS Workshop organized by AICHE Student chapter, AISSMSCOE, Pune 4. Internal Hackathon for SPPU startup competition - 3rd Prize
4	Mohasin Shaikh	1.Completed BIOGAS Workshop organized by AICHE Student chapter, AISSMSCOE, Pune
6	Nupoor Ajay Upadhye	1. Completed DWSIM workshop organized by AICHE Student chapter, AISSMSCOE, Pune 2. Completed BIOGAS Workshop organized by AICHE Student chapter, AISSMSCOE, Pune 3. Aatmanirbharta COIVID - 19 Startup competition - Won 3rd Prize organized by AISSMSCOE,Pune 4. Internal Hackathon for SPPU startup competition - Won 3rd Prize 5. AI for everyone - Coursera Course completed 6. Design Thinking - Coursera Course completed 7. Design Thinking for Innovation - coursera course completed 8. Nanotechnology and Nanosensors Part 1- coursera course completed 9. Nanotechnology and Nanosensors Part 2 - coursera course completed 10. Navyuvak Entrepreneurs Masterclass on Digital Marketing - completed
7	Rushikesh U Wankhede	1. Coursera - Personality Development and Time Management Course Completed
8	Paresh R Chaudhari	1.Completed DWSIM workshop organized by AICHE Student chapter, AISSMSCOE, Pune

Department Vision:

To be a leader in Chemical Engineering education providing service to society

Department Mission:

1. To prepare graduates for **responsible positions** in chemical industry, academia and research

2. To prepare graduates to **analyze and solve problems** of chemical industry, academia and research

Program Educational Objectives (PEOs)

1. **Competency:** To prepare competent graduates in Chemical Engineering so that they are successful in their professional career in industry, academia or research

2. **Problem Solving Skills:** To prepare graduates who can identify, analyze, research and solve Chemical Engineering problems of practical importance to industry, academia or research

3. **Leadership Skills:** To prepare graduates with effective communication, teamwork and leadership skills so that they can play effective role in industry, academia and research institutes.

Program Specific Outcomes (PSO) and Program Outcomes (PO)

Program Specific Outcomes (PSO)

Chemical Engineering graduates will be able to:

1. Identify, analyze, design and develop solutions to Chemical Engineering problems of practical importance to industry and society.

2. Demonstrate sound understanding of Chemical engineering fundamentals to solve problems through the use of modern experimental methods, computer aided design and simulation software

Program Outcomes (PO)

Engineering Graduates will be able to:

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

- **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

- **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.

- **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.

- **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

- **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.

- **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.

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

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

- **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.

- **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.

- **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.