

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



News Letter Vol. No.XVI, July 2019–Dec 2019

# 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



Inauguration of Energy Club

### **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 2019-20 (Term-I)				
DATE	ATE EVENT NAME EVENT DESCRIPTION			
10/08/2019	Awareness Programme	For F E Chemical Engineering Students admitted in A.Y.2019-2020		
10/08/2019	Expert Lecture	Alumni Harshal Thakur delivered expert lecture on "Present Scenario of Chemical Industries" for students of FE Chemical Engineering		
10/08/2019	Expert Lecture	Alumni Harish Patil delivered expert lecture on "Petrochemical Industry : Job Potentiality Available" for students of FE Chemi- cal Engineering		
20/8/2019 To 22/08/2019	Add on Course	Mr. V.P.Sangore and Mr Parvez Ansari conducted add on course entitled "Advanced Instrumental Analysis And Techniques in Chemical Engineering" for S.E. Chemical Engineering Students		
20/8/2019 To 22/08/2019	Add on Course	Dr.V.R.Diware and Dr.S.A.Thakur conducted add on course en- titled "Industrial Safety" for T.E.Chemical Engineering students		
20/8/2019 To 22/08/2019	Add on Course	Dr. N.Y.Ghare and Miss P.G.Thakare conducted add on course entitled "Process Design In Chemical Engineering" for B.E. Chemical Engineering students		
05/09/2019	Teachers Day	Teacher's Day Celebrations		
05/09/2019	Tree Plantation	Tree Plantation Program conducted at SSBT'COET Campus. Students of the Chemical Engineering Department participated.		
25/09/2019	Industrial Visit	Final Year Students of Chemical Engineering visited Jain Farm Fresh Foods Limited, Solar Energy Division and Jain Irrigation Systems Limited, Shoirsoli Road, Jalgaon		
27/09/2019	Alumni Lecture	Alumni Mayur Patil delivered expert lecture on "Preparation of GRE-TOEFL for M.S. Studies" for students of Chemical Engineering Department.		
28/09/2019	Poster Exhibition	Poster Exhibition on theme "Clean India Green India" for the students of Chemical Engineering Department.		
28/09/2019	Essay Competition	Essay competition on topic "Plastic: A Boon or Curse" for the students of Chemical Engineering Department.		
02/10/2019	Demonstration of Project	Department of Chemical & Biotechnology jointly organized Plastic Recycling Demonstration Project for the students of SSBT's COET, Bambhori, Jalgaon		
04/10/2019	Energy Club Inauguration	Inauguration of Energy Club by Shri.Sanjeev Phadnis, Sr.Manager, Solar Energy Division, JISL, Jalgaon		
05/10/2019	Fresher's Welcome	A Freshers Welcome " <i>Parichay: To the Chem Life</i> " organized for FE Chemical Engineering Students		





#### **KBCNMU OCT/NOV 2019 Examinations**

#### List of Top Three Students (College Level and University Level)

#### B.E. Chemical Engineering Result (Academic Year 2019-20, SEM-VII)

Merit No.	Name of the Student	CGPA
1	BALDI GAURAV GIRDHARI	8.40
2	MAHAJAN DEVEN SANJAY	8.29
3	PATIL AKASH AJAY	7.96

### T.E. Chemical Engineering Result ( Academic Year 2019-20, SEM-V)

Merit No.	Name of the Student	CGPA
1	PATIL HARSHAL SUNIL	8.69
2	BANIYA SAKSHI SADHASHIV	8.40
3	PATIL VAIBHAV RAVINDRA	8.38

### S.E. Chemical Engineering Result (Academic Year 2019-20, SEM III)

Merit No.	Name of the Student	CGPA
1	JADHAV MANAS JITENDRASING	9.00
2	PATIL JIVANLAL MAHADU	8.86
3	PATIL PRASAD JAYWANTRAO	8.74

### INDUSTRIAL VISIT

Industrial visit has its own importance in a career of a student who is pursuing a professional degree in Chemical Engineering. Objectives of an industrial visit is to provide students an insight regarding internal functioning of chemical plants. It provides students with an opportunity to learn practically through interaction with the technical man force, working methods and industrial environments. It also gives them exposure to current work practices carried out in chemical industries.

On Wednesday 25<sup>th</sup> September 2019, the Students of Final Year Chemical Engineering and Biotechnology Engineering Visited "Jain Farm Fresh Foods Limited" and "Jain Irrigation Systems Limited" Jalgaon. Dr.V.R.Diware, Head, Chemical Engineering & Biotechnology, Dr.S.A.Thakur & V.P.Sangore,, Asst. Prof., Chemical Engineering Department are accompanying faculty for the Industrial Visit. The Students visited "Food Park "and learned and observed Manufacturing and Testing of Industrial and Retail Products such as Mango Puree & Juice Concentrate, Banana Puree & Juice Concentrate, Guava Puree & Concentrate, and Tomato Puree & Paste. The Students also visited "Solar Energy Division" and acquired knowledge about integrated manufacturing facilities and solar solutions such as Solar PV modules, Solar pumps, Solar off grid power plants, Solar roof top grid connected plants, Solar water heating systems, LED based home lighting, LED based street lighting, LED lanterns.



## **Energy Club**

## "Education, Enhancement, Expedition for Effective Energy System"

Installation Ceremony of "Energy Club" and expert lecture took place by auspicious hand of Shri Sanjeev Phadnis, Sr. Manager (Production), Solar Division, Jain Irrigation Systems Ltd, Jalgaon on 04.10.2019 for Biotechnology and Chemical Engineering students.

#### **Objectives:**

Promote Energy Efficiency Protect Environment Energy Conservation Bioremediation Non Conventional Energy Sources Energy Audit Water Conservation and Waste Water Treatment Innovation in Sustainable Energy

#### **Outcomes:**

Energy Efficient Technology Environmental Solutions Energy Conservation and Management Waste Management Save Electricity Save Water Tree Plantation Save Fuel Save Electricity Active Citizenship

#### **Events:**

Energy Quiz Energy Mentor Meet Poster, Essay Competitions Minor Projects Workshops and Seminars Technical Events

Under the energy club, Vermi-composting project for compositing in-house waste generated in the garden of the college was started by auspicious hand of respected Principal Sir on 19/12/2019.



# **Event Snaps**



Tree Plantation





Add-on Courses



## International Conference



#### The Roles and Responsibilities of Chemical Engineers

Chemical Engineers are considered to be "Universal Engineers." They use chemistry, physics, biology, microbiology, biochemistry and mathematics to design programs, machines and processes that turn raw materials into valuable products for human use and for use in the environment.

Chemical Engineers play a very important role in making modern society. Many Chemical Engineers design and operate large-scale and complex chemical production facilities to supplying diverse chemical products to society. In performing these functions, a Chemical Engineer will likely assume a number of roles during a career.

The Chemical Engineer is involved in raw materials extraction, intermediate materials processing, or production of pure chemical substances; in each activity, the minimization and management of waste stream will have important economic and environmental consequences.

Chemical Engineers are involved in the production of bulk and specialty chemicals, petrochemicals, integrated circuits, pulp and paper, consumer products, minerals, and pharmaceuticals.

Chemical Engineers also find employment in research, consulting organizations, and educational activities. The Engineer may perform functions such as process and production engineering, process design, process control, technical sales and marketing, community relations, and management. As Chemical Engineers assume such diverse roles, it is increasingly important that they should be aware of their responsibilities to the general public, colleagues and employers, the environment, and also to their profession.

One of the central role of Chemical Engineers is to design and operate chemical processes yielding chemical products that meet customer specifications and that are profitable, another important role is to maintain safe conditions for operating personnel and for residents in the immediate vicinity of a production facility.

Finally, chemical process designs need to be protective of the environment and of human health. Environmental issues must be considered not only within the context of chemical production but also during other stages of a chemical's life cycle, such as transportation, the use of chemicals by customers, recycling activities, and ultimate disposal.



