



**SSBT's College of Engineering & Technology, Bambhori, Jalgaon.**

(Included under section 2 (f) and 12(B) of the UGC Act, 1956

ISO-9001-2008 Certified)

**Department of Chemical Engineering**

# MOMENTUM

*News Letter Vol. No.10, July 2016– Dec 2016*

## 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



## Objectives of the Institution

- ◆ To impart innovative teaching and learning
- ◆ To provide quality education with futuristic trends in engineering and technology
- ◆ To develop the institute as a research center for academic excellence
- ◆ To ensure continual improvement in quality management system
- ◆ To inculcate social values, patriotism and professional ethics among the students

## Program Educational Objectives (PEO's) 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 socio-economic 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.

## Program Outcomes (PO's) of Chemical Engineering Department

- ◆ An ability to execute knowledge of basic science, mathematics and engineering.
- ◆ An ability to display the research by designing, conducting, interpreting and analyzing experimental data for preparing reports.
- ◆ An ability to demonstrate the caliber of product designing according to the standards.
- ◆ An understanding to demonstrate the ability to perform the task with multidisciplinary teams.
- ◆ An ability to identify, formulate, design and provide the solution to various chemical engineering problems.
- ◆ An ability to demonstrate the understanding of professional and ethical responsibilities.
- ◆ An ability to communicate formally and informally.
- ◆ An ability of designing the product to meet economical and societal requirements.
- ◆ A commitment to reveal self education, social values by providing the services to society through lifelong learning.
- ◆ An ability to understand the environmental issues and to provide solutions for green and clean technologies.
- ◆ An ability to demonstrate the computational skills using engineering software.



## Expert Lecture

SSBT's COET realizes the importance of giving additional inputs to the students in the form of expert lectures in addition to academic knowledge. The departments regularly arrange Expert Lectures of eminent personalities from academics & from industry, to impart additional knowledge of various topics. An Expert lecture of Dr. James Njuguna, Reader, Robert Gordon University, (U.K.) was organized on July.23,2016 on the topic "Multidisciplinary Research".

During his lecture he aware the students regarding importance of multidisciplinary research in nations development and challenges in doing multidisciplinary research. He raised the urgent need for flexible organizational structures that can operate across discipline-focused departments.

In his address he also said that directed institutes and centers with seed funding can encourage interdisciplinary research.

Apart from that he also highlighted his research outcomes in the field of nonmaterial's & nanocomposites and contribution in developing multifunctional and lightweight composites with enhancement in the mechanical, thermal, self-healing, impact, energy absorption and durability properties.

Faculty & students of Chemical, Biotechnology and Civil engineering were attended the lecture.

Dr James Njuguna has a long-standing interest and extensive research experience in composite materials (and nanomaterials)for structural applications.

The research work has a singular goal to develop multifunctional and lightweight composites (and nanocomposites) with potentially superior properties such as mechanical, thermal, self-healing, impact, energy absorption and durability that can be translated to better dynamic performance of components.

To date, he has secured around £3 Million of research funding in cash as principal investigator from the European Commission, UK government grants, and industry. He has led several research projects to commercialised products (plastic engine components) in automotive industry.

He has published over 100 publications and 3 books, 11 book chapters; 1 EU Patent Application plus 50 Technical Working Reports in his composites research output. He is an Editorial Board member of 3 scientific Journal publications. James was awarded Research Councils UK Academic Fellowship (2005-10), Rector of Cracow University of Technology Award (2006) and Marie Curie Fellowship (2003-04).





## Tree Plantation at SSBT Campus



## Alumni Meet (2016-17)

Alumni meet gives an opportunity to alumni to interact with their old friends, classmates and teachers and share their memorable experiences in their tenure as a student. It further provides a platform for them to share their success stories and continue to build a bond with the college. It lets them relive the carefree days of their college lives as they get a chance to visit all the locations they once frequented. Alumni Meet for the year 2016-17 was organized at the institute level on Sept.11,2016. Alumni of various department attended the meet enthusiastically and express satisfaction of the overall development of the institute.

## Teacher's Day Celebrations



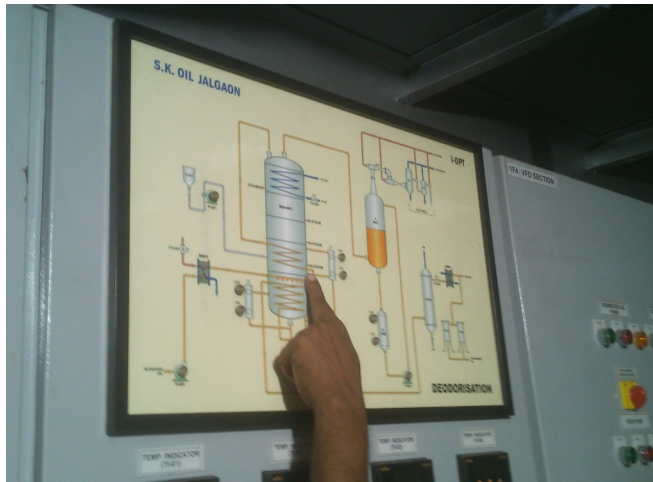


## Industrial Visit

To bridge the gap between theory and actual unit operations carried out in industries it is essential to visit chemical process industries. This year also Industrial Visit for final year students of Chemical Engineering Department was conducted on 22 Sept.2016. Final year students visited the following industries along with Dr. S.A.Thakur & Shri. V.P.Sangore & Shri. N.Y.Ghare as accompanying faculty.

- ◆ S.K.Oil Industries , Shivaji Nagar, Jalgaon.
- ◆ Maurya Chemicals Ltd., MIDC, Jalgaon
- ◆ Acme Sujan Industries Ltd., MIDC, Jalgaon

The students minutely observed the unit operations and processes carried out in the industries, the raw material storage division, boiler division, processing vessels, and packaging division and interacted with the supervisors, and supporting staff to gain knowledge about blending, and other unit operations.





### Career Guidance Seminars conducted by Faculty

<i>Date</i>	<i>Venue</i>	<i>Faculty</i>
Nov.22,2016	Zerwal Academy, Pachora,Dist: Jalgaon	Dr.S.A.Thakur Dr.A.R.Lokhande
Nov.28,2016	New English School & Junior College , Jamner,Dist: Jalgaon	V.P.Sangore N.Y.Ghare
Nov.28,2016	Acharya G.R.Garud Junior College, Shendurni,Dist: Jalgaon	V.P.Sangore N.Y.Ghare
Dec.03,2016	Pratap High School & Junior College, Chopda,Dist: Jalgaon	N.Y.Ghare
Dec.06,,2016	C.G.Patil, Arts, Commerce & Science College, Sakri, Dist:Dhule	V.P.Sangore
Dec.21,2016	Yogeshwar Junior College, Amalner,Dist: Jalgaon	Dr.V.R.Diware
Dec.29,2016	Saraswati Classes, Satana, Dist: Nasik	N.Y.Ghare S.J.Jamadar
Jan, 10,2017	Pandit Jawaharlal Neharu College, Boradi, Dist: Dhule	Dr.V.R.Diware S.J.Jamadar
Jan 30, 2017	Gramvikas Vidyalaya, Pimpalgaon Hareshwar, Pachora, Dist: Jalgaon	Dr.V.R.Diware



## 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.

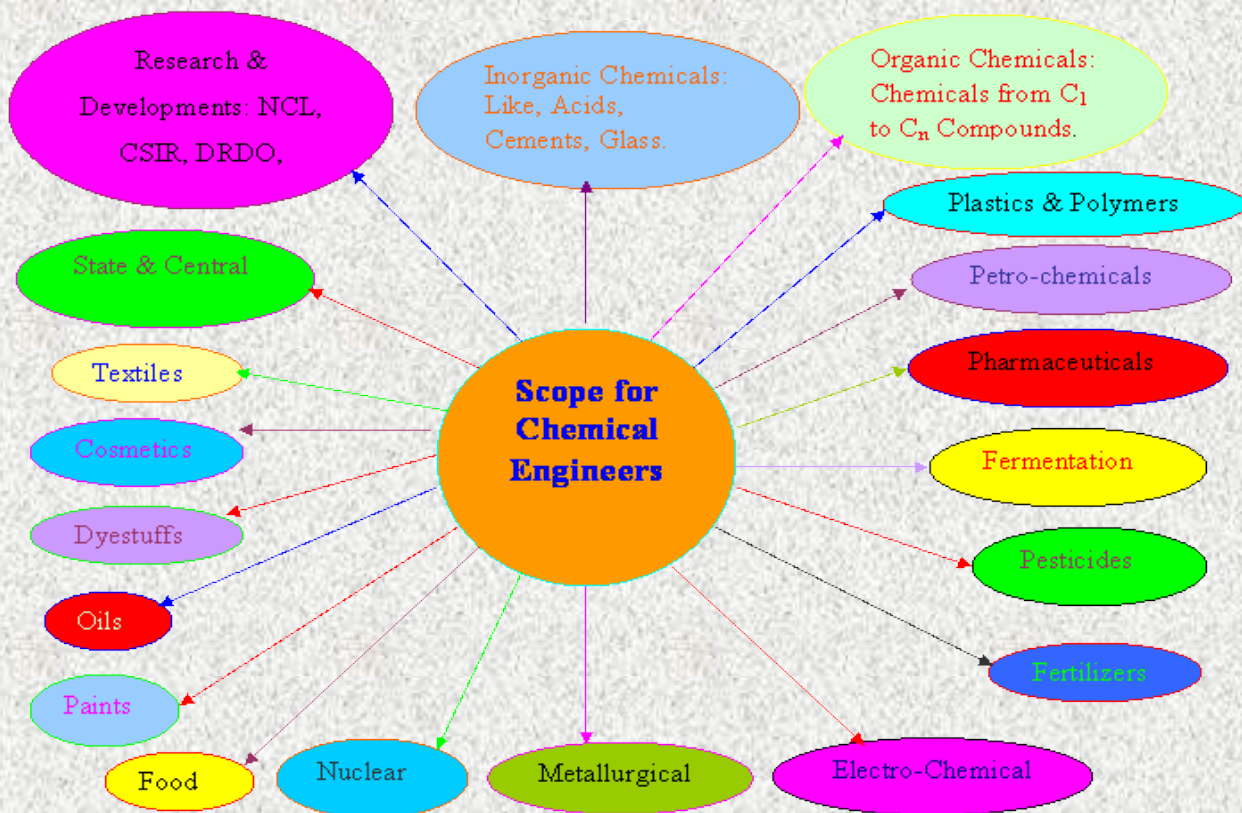
Chemical Engineers are involved in the production of bulk and specialty chemicals, petrochemicals, integrated circuits, pulp and paper, consumer products, minerals, and pharmaceuticals.

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.

### Scope for Chemical Engineers in Various Industries & Organizations





## Photo Gallery



**Dr. V.R. Diware**  
Head, Chemical Engineering



**Prof. Dr. K. S. Wani**  
Principal

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