Sri Venkateswara College of Engineering

DEPARTMENT OF CHEMICAL ENGINEERING

NEWSLETTER

THE CATALYST

ACCELERATING YOUR GROWTH

Volume - 2, Issue - VI, June, 2023

Newsletter

The Catalyst

(Accelerating your Growth rate)

Department of Chemical Engineering

Vision

To be a leader in Chemical Engineering Education and Research by providing balanced learning and fostering research to enable the learners to meet the challenges of process industries and societal needs.

Mission

The Department of Chemical Engineering strives to produce graduates who practice Chemical Engineering professionally and ethically in a competitive global environment and contribute to the betterment of society, thereby focusing on the development of engineers to foster innovation through proficiency and effective communication.

Motivation: Alumni page

Proud Alumnus:
Shri. K.Paulrajan
B.Tech Chemical Engineering (2012-2016)

Scientific Officer - D
Kudankulam Nuclear Power Project, NPCIL.

SVCE - A gateway of ample learning and experience

My 4 year bachelor study at SVCE not only enlightened my mind with the technical knowledge of chemical engineering but also made aware of the challenges abided with facing the real world as an young engineer after graduation.

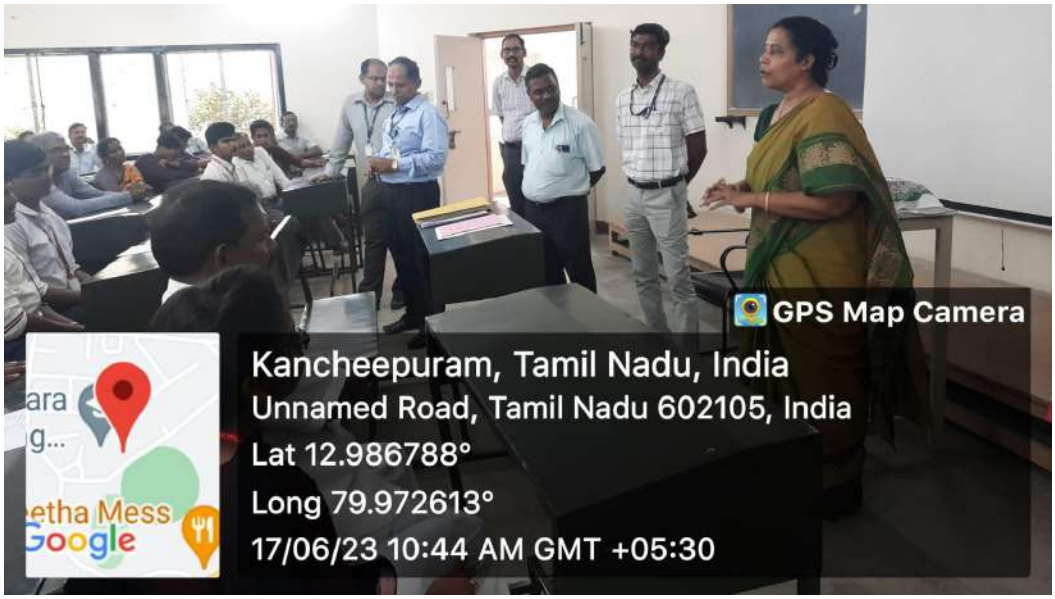
Unlike other affiliated engineering colleges of Anna University, SVCE offered a unique approach of learning the basic concepts of chemical engineering. It's been a common practice in most of the engineering colleges to provide their students with the required notes and materials for semester examinations. But we at SVCE, had not been imparted such practices. Instead SVCE offered us with a great library with large repository of books and materials that acquainted us with the strong foundation in gaining technical concepts. The department of chemical engineering has always encouraged the students in organising conferences and symposiums at our campus. These offered us a great opportunity to be conservant with the new technologies that have sprouted in the field of chemical engineering across the globe.

Our professors and lecturers at SVCE have always been keen in clearing our doubts during classroom sessions. Also, the faculties at SVCE emphasized the importance of asking doubts / questions during their teaching sessions which not only created interactive sessions of learning but also to master the core chemical concepts that were required to shine as a budding engineer after our graduation at SVCE.

Knowledge when directed in an organised way with least entropy creates great leaders in shaping a better world everyday.

Juniors - Parent Teacher Meeting - A Day to appraise.

Parents were appraised about their ward who are in their second semester, on 17th June 2023 about their academic performance, attendance, assessment performance and lack of discipline(if any).



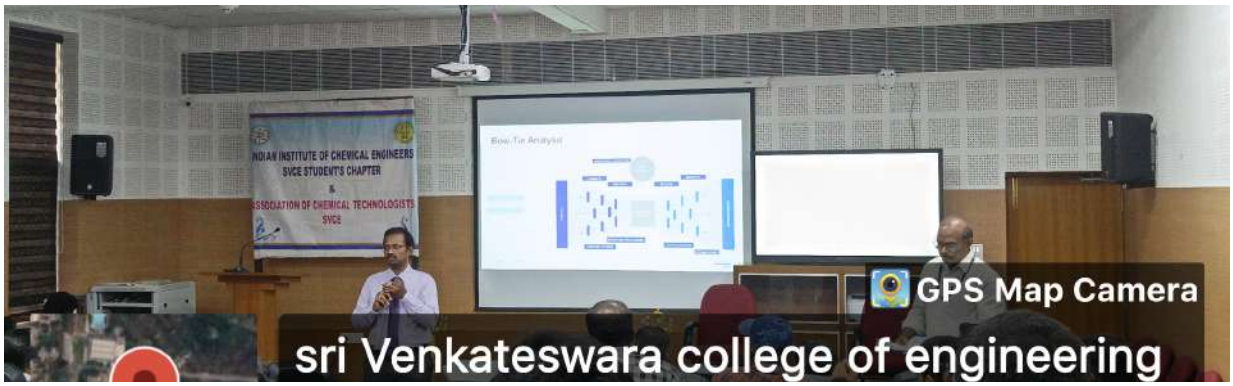
Events Organised: Faculty Development Programme (FDP).

Six Days Faculty Development Programme on " Chemical Process Safety and Professional Ethics"
Duration: 12th June 2023 to 17th June 2023
Venue: Library, Seminar Hall.

The Chief Guest, Shri. Kallarpiran Arumugam, founder, Seed for Safety, lighting the Kuthuvilakku; and addressing the gathering; The Head of Department - Electronics and Communication Engineering, Dr. S. Muthukumar giving the Presidential address, and Dr. N. Meyyappan giving the Introductory Speech; and one of the FDP Organisers, Mr. S. Jai Ganesh, AP/CHE, welcoming the assembly; the gallery, made up of faculty and participants from SVCE, as well as exterior colleges.

The team of trainers from M/s. Seed for Safety has delivered the three sessions of training about the chemical process safety and one session of demo and training about fire fighting equipments and fire extinguishers.

The team of trainers from M/s. HARD safety Consultant lead by Shri Arun kumar has delivered the three sessions of training about the chemical process safety, RISK, HAZARD identification and one session as workshop by utilizing the P & ID drawings for HAZARD and RISK identification.



The final sixth day was experts from DNV - India, where the Chief trainer Shri P. Laskhmi Narayana, has trained the participants on PROCESS HAZARD ANALYSIS, and they are certified from DNV after an assessment.

The Chief Guest for the Valedictory Ceremony, Dr. R. Ramesh, Dean - Academics, Professor, Dept. of Mechanical Engineering, addressing the gathering; the Head of Department, Chemical Engg., Dr. N. Meyyappan, the Chief Guest, Event Organiser, Ms. A.C. Vijayalakshmi AP/CHE, presiding over the ceremony; the Chief Guest felicitating the winners; the gallery, comprised of Faculty and participants from both SVCE and other exterior colleges and from industry (Kothari Petrochemicals).

Pathways: Opportunities of Chemical Engineering

A Webinar is organised on 19/06/2023, were we appraise about our strength in addressing the opportunities in chemical engineering. This webinar is targeted towards the prospective students and their parents. The Academicians and student alumni of the chemical engineering department, SVCE explained in their own words about the Pathways to the Chemical engineering career.

Programmes run by the Department of Chemical Engineering are,

- **B.Tech Chemical Engineering**
- **M.Tech Chemical Engineering**
- **Ph.D**

B.Tech CHEMICAL Engineering

***Programme* Educational Objectives**

PEO1: Understand and apply the basic principles of science and engineering to modern chemical technology.

PEO2: To inculcate problem solving skills, conduct experiments, analyze and interpret the data.

PEO3: To design processes within realistic constraints such as economic, social, ethical, environment, health and safety conditions.

PEO4: To provide opportunities to students to engage in professional societies, and help them to acquire new skills to stay connected with today's fast progressing environment.

PEO5: To provide awareness in critical thinking, environmental, ethical and professional practice including improving communication skills.

Programme Outcomes

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, 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.

P10: 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.

P11: 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 OUTCOME's

PSO1: Apply the knowledge of science and mathematics in the field of various transport processes to accomplish the contemporary needs of chemical and allied industries.

PSO2: Execute the chemical engineering principles and modern engineering tools to conduct experiments or design a system for developing quality chemical processes by considering the cost, safety and environmental aspects.

M.Tech CHEMICAL Engineering

***Programme* Educational Objectives**

PEO1: Acquire comprehensive knowledge in Chemical Engineering and research capabilities.

PEO2: Analyze and solve using Chemical Engineering principles and modern engineering tools to conduct experiments for improving the quality of the chemical processes.

PEO3: Design processes within realistic constraints such as economic, social, ethical, environment, health and safety conditions.

PEO4: Provide opportunities to students to engage in professional societies, and help them to acquire new skills to stay connected with today's fast progressing environment.

PEO5: Empower students to become entrepreneurs for Chemical industries.

Programme Outcomes

PO1: Independently carry out research /investigation and development work to solve practical problems.

PO2: Write and present a substantial technical report/document.

PO3: Demonstrate a degree of proficiency over the area as per the specialization of the program. The proficiency should be at a level higher than the requirements in the appropriate bachelor program

PO4: Potential to analyze 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.

PO5: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO6: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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