

## Newsletter

# The Catalyst

(Accelerating your Growth rate)

Issue - I, November, 2022

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# 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 interaction/Industrial expert talk



**A prominent alumni of 1998-2002 batch ,  
Dr. B.R. Ragavendra Prasad, Manager, BASF,  
Germany.**

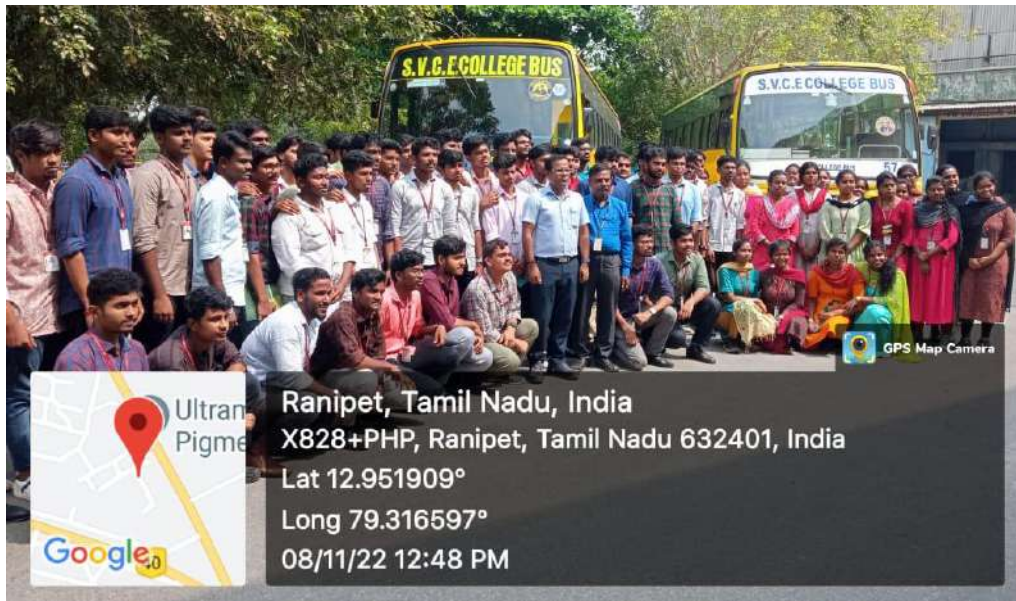


**An industrial expert, Shri J. Sridhar, Vice  
President, Chemfab Alkalies Limited, Puduchery.**



## Balanced Learning: Industrial Visit

Total 2 no of Industrial visits (Ultramarine/Hatsun) have been arranged through the Department for the balanced learning (industry and textbook) for students, OS 2022 - 2023.





## Balanced Learning: Guest Lectures Organised:

Total 6 guest lectures given by industrial/academic experts; that have been arranged through the IChE, ACT & AIChE Student Chapter for the balanced learning (experts view and textbook) for students in Odd Semester 2022 - 2023.

Sl.No.	Guest Lecture Details	Date
1	Inauguration of IChE Student Chapter Activities & Guest Lecture on Circular Economy & Sustainability Strategies, Guest: Dr.B.R.Ragavendra Prasad, BASF, Germany	24.08.2022
2	Role of Process Engineer in Pharmaceutical Industry, Guest: Prof.Dr.Bindumadhavan Gururajan, Novartis Pharma,Switzerland	19.09.2022
3	Motivational Talk and Providing Career Guidance, Guest:Shri J. Sridhar, Chemfab Alkalies Limited, Puduchery, India	30.09.2022

Sl.No.	Guest Lecture Details	Date
4	An Overview of Petroleum Refinery, Guest: Shri. Chiranjeevulv, Ex-ONGC – MRPL, Mangalore, India	12.10.2022
5	Expectations of Industry from Fresh Chemical Engineers. Guest: Shri.S. Stalin,Director, Chem Skill Development Centre, Chennai.	21.10.2022
6	Design of various supports and Pressure Vessels. Guest:Shri. Hammad Ahmad, KBR Pvt Ltd, Chennai; and Shri. M. Elangovan, Consultant, Chennai.	06.11.2022

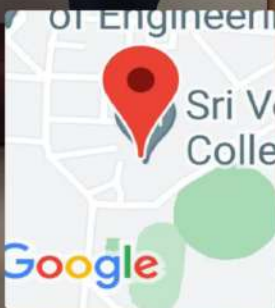
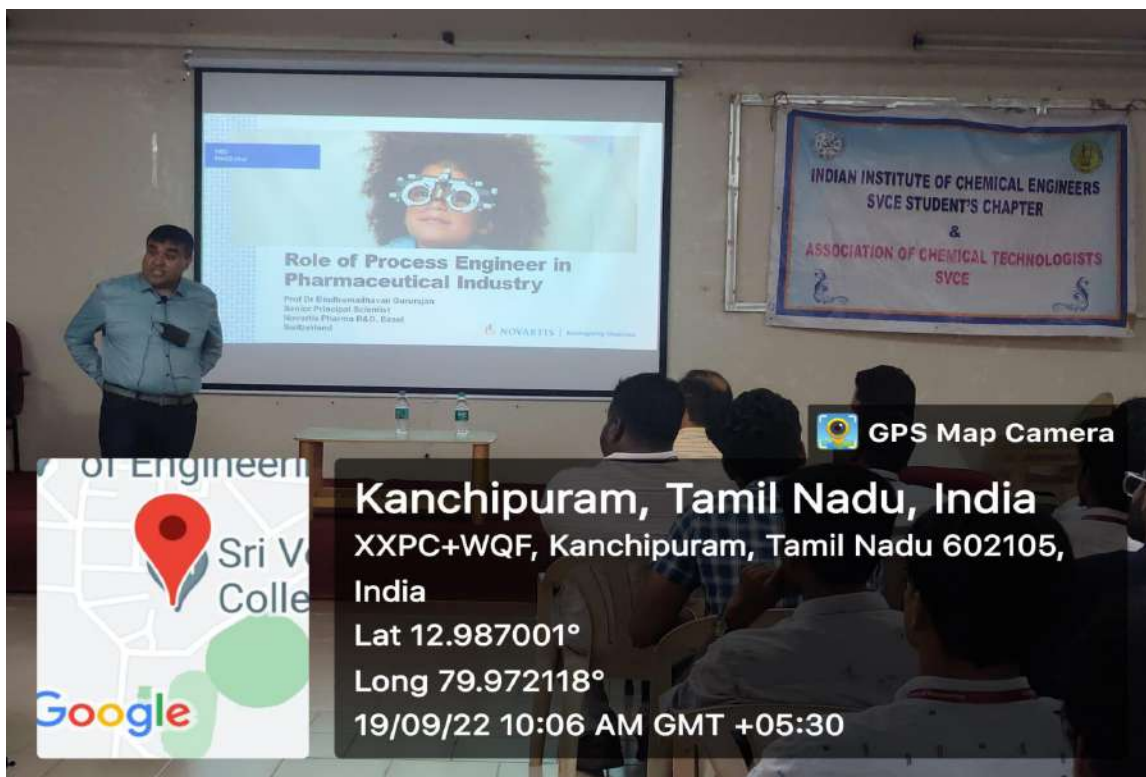
In order to reduce the gap between classroom learning and industrial learning, two topics “Design of various supports” and “Design of Pressure Vessels” of CH18604 - Process Equipment Design - II subject (VII semester) is strengthened by industrial experts through a 5 hours Guest lecture on 06.11.2022.







**Irungattukottai, Tamil Nadu, India**  
 Sri Venkateswara College of Engineering, Ponnalur  
 Village, Tamil Nadu 602105, India  
 Lat 12.986109°  
 Long 79.971423°  
 12/10/22 11:27 AM GMT +05:30



**Kanchipuram, Tamil Nadu, India**  
 XXPC+WQF, Kanchipuram, Tamil Nadu 602105,  
 India  
 Lat 12.987001°  
 Long 79.972118°  
 19/09/22 10:06 AM GMT +05:30

## Internship/Inplant Training: Process Industries/ Societal needs

- **Star Performer:** Student **VK VIGNESH**, Reg.no, 2127200301062, III year B.Tech Chemical Engineering, has undergone “Summer Undergraduate Research Fellowship 2022” at “California Institute of Technology (CalTech)”, USA, between 18/07/2022 to 10/09/2022.



### **Making electrochemical water treatment technology economical by setting the parameters dynamically: A machine learning approach**

Vignesh Vinayagam<sup>a</sup>, Heng Dong<sup>b</sup>, Michael R. Hoffmann<sup>b</sup>

<sup>a</sup>Department of Chemical Engineering, Sri Venkateswara College of Engineering, Chennai, India

<sup>b</sup>Linde laboratories, California Institute of Technology, Pasadena, California, United States of America



- Also, Fourth year B.Tech Chemical Engineering Student VARSHINI V R, Register No, 190301073, has completed a paid Internship at ZOHO Corporation Private Limited, Chennai, for a period of 27 days. She has been awarded this internship after her selection through campus interview.



### Zoho Corporation Private Limited

Plot 140, 151, Estancia IT Park, Vallancheri,  
Chengalpattu District, Tamilnadu, 603 202.

Ph: +91 - 44 - 6744 7070

[www.zohocorp.com](http://www.zohocorp.com)

SEZ Unit

## INTERNSHIP CERTIFICATE

This is to certify that Mr/Ms. **Varshini V R - SI-1632** has undergone his/her internship training in , from 04-May-2022 to 31-May-2022. During this period, his/her performance and conduct were found to be good.

Yours Sincerely,

For Zoho Corporation Private Limited

*Raji R Muthusankar*

**Rajarajeswari R**

**Senior Associate - HR**

- Total 57 Internship/ Inplant trainings were undertaken by students of B.Tech Chemical Engineering in 15 different organizations during the past summer break. All the Students name are displayed in Internship wall of names (below) and few feedback from students are shown below,



More than one week of training at Vaighai Agro Products Limited has greatly benefited us in several ways. We are also motivated to set up a clear vision as well. We also became aware of our role as a Chemical Engineer in making this possible.

During our training at Vaighai Agro Products Ltd., we have learnt several things as an Engineering student which include, but are not limited to the working in organisation, Process technology, Analytical skills, Safety in Industry and Time Management.

We are very happy to have an Industrial exposure. It has proved to be an important milestone in our academic life. And once again we extend our sincere thanks to each and every one who helped us.

- It was a new experience in the Coimbatore aavin and I have learned new technologies they are using currently. The employees of aavin respond so well they helped me to gather information about the company.
- The Coimbatore district co-op milk producer's union Ltd. has been performing well in the milk and milk product goods.
- Both educated and uneducated gets employment opportunities because of this organization. Thus, the organization provides great satisfaction to the public and employees.

## Faculty Industrial Training: Train the trainer



Dr. R. Palani, Dr. G. Sudha, Associate Professor; Mr. S. Rajasekar and Dr. N.P. Kavitha, Assistant Professor, Department of Chemical Engineering, has been trained in Process Equipment Design and their implementation in HTRI software, by Shri Ganesh Prasad, Manager, Precision Equipments Limited, Sriperumbudur. This training also covers the shop floor relevance with the fabrication of heat exchangers and pressure vessels.

## Recent Challenge: Organized

TWO-DAYS NATIONAL CONFERENCE on

TECHNOLOGICAL INNOVATIONS IN CHEMICAL ENGINEERING TOWARDS SUSTAINABILITY

(TICHSCON'22)



The invitation card is framed in a decorative gold border. At the top left is the SVCE logo with the text 'Sri Venkateswara College of Engineering (Autonomous - Affiliated to Anna University, Chennai)'. To its right is the Anna University logo. Below these are the logos for the Department of Chemical Engineering & IChE & AICHE SVCE Student Chapter and AICHE. The central text reads: 'Cordially invites you for a two day National Level Conference on TECHNOLOGICAL INNOVATIONS IN CHEMICAL ENGINEERING TOWARDS SUSTAINABILITY (TICHSCON'22)'. It is inaugurated by Dr. M. MENAGA, Managing Director of BIONEEMTEC INDIA PVT LTD, Siruseri, Chennai-603 103. It is in the presence of Prof. S. GANESH VAIDYANATHAN, Principal, SVCE. The venue is Video Hall, dated 27th May, 2022, at 9:00 AM. A URL for further details is provided: [www.svce.ac.in/TICHSCON'22](http://www.svce.ac.in/TICHSCON'22). At the bottom, it says 'All are welcome !!!'.



TICHSCON'22 - Wall of Awards

## BEST PAPER

Optimization and synthesis of biogenic Nano scale compounds and their clinical applications

Hydrothermally synthesised Molybdenum disulphide Nano sheets as an electrode materials for Asymmetric based Supercapacitors

Vegan Shrimp- The Replacement for Traditional Animal Based Food

Investigation of Variation of Extraction Methodology to Infer the Recovery Performance of 1,8-Cineole from Eucalyptus Oil

An Experimental Study in Production of ammoniacal solution from Effluent Treatment of Wastewater from Fertilizer Industry

Dynamic Modelling on Control of pH Neutralisation Process

## BEST POSTER

Synthesis and Characterization of Biodegradable Nursery Grow Bags from Peanut Shell Waste

Green Synthesis of ZnO Nano Particles from Azadirachta Indica and its Photocatalytic Degradation of Methylene Blue and Eosin Dyes

Efficacy study of hypochlorous acid as a disinfectant

## Fostering Research: Awards & Achievements:

### Student Achievements:



- A project funded by Tamil Nadu State Council for Science and Technology, under Student Project Scheme is awarded Rs. 7500/- towards the work titled "Design of low cost carbon absorber to control the emission of carbon dioxide from the environment".

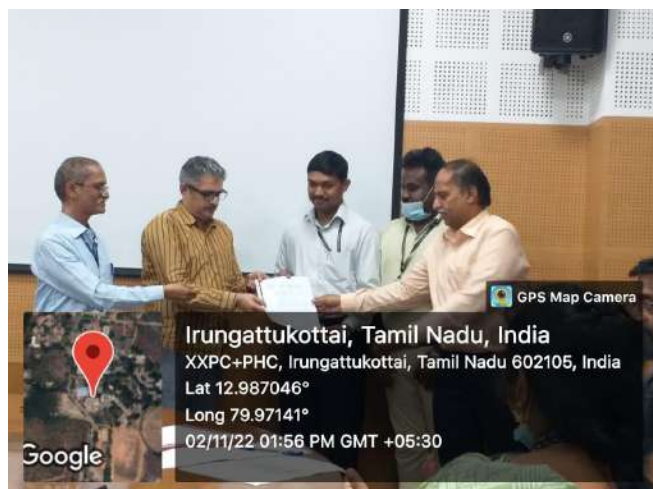
**Students Involved:** Mr.Sanjaiy N, Mr.Pavithra R, Ms.Varshini L (2018-2021).

**Mentor:** Mr.M.Ananda Boopathy, Assistant Professor.

Paper / Poster /Technical Competitions have been participated by some of our students at various flagship events like “Students' Chemical Engineering Congress (SCHEMCON)”, EEENIX - National level technical symposium, Govt. College of Engineering, Srirangam. The various students are represented in Wall of Names below,

nitish kumar k  
jow raymund i  
barathselvam a  
deepak b  
mahadevan m  
abdulla irfan jahir  
v lila prieya  
ovviya s  
jeeva kannaj  
kovarthan yadav p  
bakyaraj k  
pavithra r  
navya r

### Faculty Achievements



SVCE intramural Research grant for the Academic Year 2022-2023, is awarded to the project “Development of Low cost Pyrolysis reactor for the production of High quality BioChar”, Dr.Philip Bernstein Saynik and Mr. M. Ananda Boopathy, Assistant Professor.

**Department Recognition:**



The Department of Chemical Engineering has been granted the second patent titled "LABORATORY SCALE INVERTIBLE AND CONSTANT FLOW RESIN COLUMN" in the name of our Institution.

Inventors are

1. Dr C Anand Babu, Former Professor
2. Mrs S Swathi, Former Faculty Member
3. Mr LS Badhri Narayanan, Former Research Scholar
4. Dr N Meyyappan, Professor and HOD/CHE

**Journal Publications:**

Total 3 no of technical papers published in Journals from the Department of Chemical Engineering in collaboration with students/faculties. The titles of the papers are given wall of names (below)

**Faculty Contributors: Dr. N.P. Kavitha and Dr. V. Divya, Assistant Professor**

**Student Contributors: Akshaya T, Aravind M, Manoj Kumar S**

<p>Facile synthesis of novel AgBr/Ag/AgCoO<sub>2</sub> composite coated petrocake beads for the visible light degradation of organic effluents</p>	<p>Pomegranate peel utilization by an indigenous fungal strain of Trichoderma reesei NCIM 1186: Optimization and Kinetics studies on production of cellulase</p>	<p>Evaluation of In-Vitro Antibacterial Activity Against Gram-Negative Bacteria Using Silver Nanoparticles Synthesized from Dyspsis Lutescens Leaf Extract</p>
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## Recent Campus Placement:



**Student A. Akilan, S. Vasudevan, S. Tharun kumar and R. Rathish of Fourth year B.Tech Chemical Engineering has been offered employment after the campus interview.**





## Extra - curricular activities:

### Exceptional Performance:



This was presented to the Rotaractor Immediate Past President. Shreeyas M S by the Rotaract club of SVCE for the successful completion of 44 projects during his presidentship tenure between 2021-22. He was also awarded Rotary international presidential citations for completing projects covering all 7 areas of focus enlisted by the Rotary International. For his persistent contribution towards the Rotary foundation during the year 2021-22 he was bestowed with the position of Group Rotaract Representative (2022-23) in the District Rotaract Council, RID 3232.



## Sports

team bonding  
pavithra r sneha s  
throw ball  
v lila prieya

basket ball

mekardz



Receiving various prizes in co/extra curricular competitions at INVENTE'22, Organized by SSN College of Engineering, Chennai.

Programmes run by the Department of Chemical Engineering are,

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

**B.Tech CHEMICAL Engineering – PROGRAMME SPECIFIC OUTCOME's**

**PS01: Apply the knowledge of science and mathematics in the field of various transport processes to accomplish the contemporary needs of chemical and allied industries.**

**PS02: 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 SPECIFIC OUTCOME's**

**PS01: Apply the knowledge of science and mathematics in the field of various transport processes to accomplish the contemporary needs of chemical and allied industries.**

**PS02: 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.**