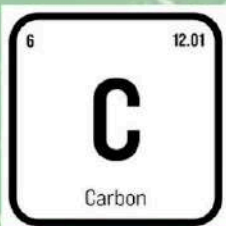


DEPARTMENT OF
CHEMICAL
ENGINEERING
NEWSLETTER

THE



CATALYST
ACCELERATING YOUR GROWTH

Volume - 3, Issue - IV, April, 2024

Newsletter: E-Copy



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

M1: To produce graduates practicing Chemical Engineering professionally and ethically.

M2: To produce Chemical Engineering graduates contributing to the betterment of society in the competitive global environment.

M3: To focus on the development of Chemical Engineers to foster innovation through proficiency and effective communication.

Motivation: Alumni page



Mr.Sujin S
B.Tech Chemical Engineering
Batch : 2010 – 2014
Process Engineer
Biocon Limited
Bangalore

Dear Dynamic Engineers,

It feels like just yesterday I was sitting where you are now, filled with a mix of excitement, uncertainty, and ambition. Today I'm eager to share some insights and encouragement from my journey in the field of chemical engineering.

College is a unique and transformative period in your life. Embrace every moment the late-night study sessions, the challenging projects, the teamwork, and even the setbacks. These experiences are shaping you into a resilient and capable engineer. Remember, it's not just about the destination, but the journey itself.

Chemical engineering is no easy feat. The coursework is demanding, and the problems you'll face can be complex. However, it's these very challenges that will hone your problem-solving skills and prepare you for real-world scenarios. When I was studying in 2nd year, there were times I doubted my abilities. But every obstacle I overcame built my confidence and expertise. Stay determined, and don't be afraid to seek help when you need it.

One of the most exciting aspects of chemical engineering is its potential for innovation. Whether it's developing sustainable energy solutions, improving manufacturing processes, or creating new materials, your work can have a profound impact. Always think critically and creatively. The world is in constant need of fresh ideas and new approaches, and you are the mind that can provide them.

Our college provides you with incredible resources, state of the-art labs, knowledgeable professors, and numerous research opportunities. Make the most of them. Engage in

hands-on projects, participate in internships, and seek mentorship from your professors. These experiences will be invaluable as you transition from academia to the professional world.

Technical knowledge is crucial, but don't underestimate the importance of soft skills. Communication, teamwork, leadership, and adaptability are essential in any career. Get involved in extracurricular activities, join clubs, and take on leadership roles. These experiences will help you develop a well-rounded skill set that will serve you well in any professional setting.

Lastly, believe in yourself. Your journey is unique, and your potential is limitless. Whether you were a front-row student or a last bencher, your perspective and experiences are valuable. The chemical engineering field needs your passion, your ideas, and your commitment. Never doubt the impact you can make.

As you look to the future, know that the possibilities are endless. From tackling environmental challenges to pioneering new technologies, your work can change the world. Stay curious, stay passionate, and never stop learning.

Your journey in chemical engineering is just beginning, and it's filled with opportunities for growth, innovation, and success. Embrace the challenges, leverage your resources, and believe in your ability to make a difference. I have no doubt that you will achieve great things. Thank you, and here's to a future filled with innovation and positive impact.

Guest Lecture: *Strengthening roots*

Smt. Spoorthi Sagar, Director of Admissions, M/s WALK International, Chennai, and her team have delivered a guest lecture on “Insights on Overseas Education” by 24th April 2024; to the second year and third year students and emphasized the opportunities available to harness through study abroad programs and preparedness required.



“Certified ESG Assessor”: *Industry Sponsored program*

Department of Chemical Engineering , Sri Venkateswara College of Engineering, Sriperumbudur, and Tamil Nadu Safety Professional Welfare Association, Chennai, jointly organized a 6 days Training program for Industrial participants, Students and faculties of engineering college. The training trained the participants and certified them as Environmental Societal and Governance Assessor by TNSPWA, M/s SEED for Safety and Quality Australia and SVCE.



தீன காற்று



தமிழ்நாடு சேப்டி புரொபஷனல் வெல்பர் அசோசியேஷன் மற்றும்
ஸ்ரீ வெங்கடேஸ்வரா கல்லூரி இன்ஜினியரிங்
மற்றும் கெமிக்கல் இன்ஜினியரிங் சார்பில்
மாணவர்களுக்கு பயிற்சி!

சென்னை, மே 10

சென்னை பூந்தமல்லி அருகே தமிழ்நாடு சேப்டி புரொபஷனல் வெல்பர் அசோசியேஷன் மற்றும் ஸ்ரீ வெங்கடேஸ்வரா கல்லூரி இன்ஜினியரிங் மற்றும் கெமிக்கல் இன்ஜினியரிங் துறையை சார்ந்த ஸ்ரீபெரு ம்புதூரினர் இணைந்து Certified ESG Assessor என்ற தலைப்பில் 22.04.2024 முதல் 27.04.2024 வரை பயிற்சியை நடத்தினர்.

National Conference: TICHSCON'24



DEPARTMENT OF CHEMICAL ENGINEERING

INDIAN INSTITUTE OF CHEMICAL ENGINEERS – SVCE STUDENTS CHAPTER

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS – SVCE STUDENTS CHAPTER

&

ASSOCIATION OF CHEMICAL TECHNOLOGISTS

Cordially invite you to attend the

Inaugural session on National Level Conference

**TECHNOLOGICAL INNOVATIONS IN CHEMICAL ENGINEERING TOWARDS
SUSTAINABILITY - CLEAN ENVIRONMENT (TICHSCON'24)**



Chief Guest

Shri. David Lourdusamy

Head EHS / Admin INR &

Global EHS Coordinator

Danfoss – Engineering Tomorrow

Oragadam, Chennai

The Department of Chemical Engineering conducted a National Conference on “Technological Innovations in Chemical Engineering towards Sustainability – Clean Environment (TICHSCON'24)”; from 29 th to 30 th April 2024; where 15 external teams were shortlisted and judged.

Valedictory Guest Lecture 2023-2024: *Student Chapter*

Shri. Manivannan Dasarathi, Founder & CEO, M/s SEPTCON VENTURES, Chennai, delivered a guest lecture on "Emotional Intelligence & NLP" by 30th April 2024; to the first year and third year students and emphasized the importance in day to day life.



College Day 2024: A Day to acknowledge

On 5th April 2024, SVCE Celebrates its college day where the best chemical engineering minds were bestowed with departmental awards and budding engineers awards.

SREE HAREE HARASUDHAN EDUCATIONAL TRUST AWARD



DUBASI BALAKRISHNA DORA AWARD



PROF. DR. G. BINDU MADHAVAN AWARD

CONGRATULATIONS



Mr. V. K. VIGNESH

IV Year

Chemical Engineering

BUDDING BRIGHT ENGINEER AWARD

CONGRATULATIONS



Mr. R. SANTHOSH

II Year

Chemical Engineering

CONGRATULATIONS



Ms. T. R. BHARGAVI

II Year

Chemical Engineering

Long Service awards: *acknowledge wisdom.*

20 YEARS



Ms. A. C. VIJAYALAKSHMI
Assistant Professor
Chemical Engineering

DoJ: 03-March-2004

20 YEARS



Mr. VEDHACHALAM
Mechanic Grade-4
Chemical Engineering

DoJ: 12-January-2004

10 YEARS



Mr. N. ARUN PREM ANAND
Assistant Professor
Chemical Engineering

DoJ: 12-June-2013

Journal Publication: *peer reviewed achievement.*

Dr. G.Sudha et.al., records her journal publication in the following UGC-CARE GROUP - II peer reviewed journals, during the month of April 2024.

Journal of University of Shanghai for Science and Technology

ISSN: 1007-6735

Studies on improvisation of Protein purification by foam fractionation

U SMRUTHI¹, SALIYA PARVEEN¹, SASHANK SRIRAM², ASWIN SEGCHAR², V GANESH^{2, **},
G SUDHA^{1, *}

¹Department of Chemical Engineering, Sri Venkateswara College of Engineering, Pennalur, India, 602117

Abstract

In bioprocess industries, the separation of desired components from the residual mixture is a very important operation. Foam separation is one such downstream process which has wide application in varied industrial fields from ore floatation to industrial effluent treatment. This work concerns the study of separation of protein from protein-containing mixtures by selective foam fractionation, including the mechanism of the enrichment of water-soluble protein in batch foam separation. The fractionations of binary proteins used in this study were 'Bovine serum albumin (BSA)' and 'Hemoglobin (HG)'. The gas flow rate, pH of the feed solution, and the protein concentration in the bulk solution were varied to study the effect of 'enrichment factor' in foam fractionation and to optimize the operating parameters in this present investigation. It has been found that an increase in the gas flow rate and the allowance of time for drainage results in better separation. At a pH of around 5.5, the separation of binary proteins was observed to be maximum. The concentrations of BSA and HG in bulk solution were found to be maximum at 1.8 mg/ml and 1.0 mg/ml respectively.

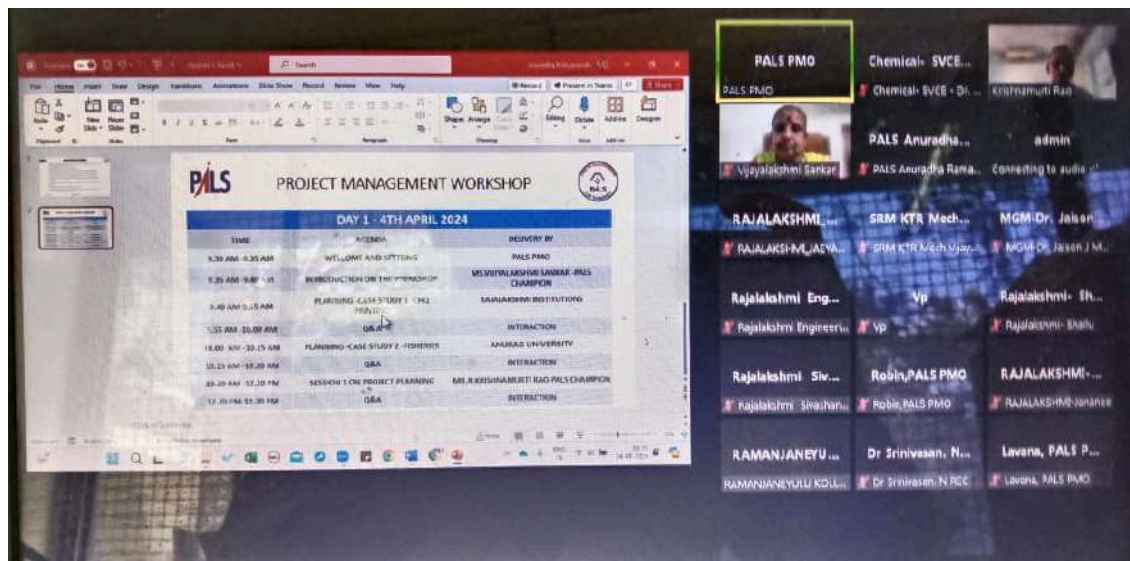
Volume 26, Issue 4, April - 2024

Events participated by Faculty: *Train the trainer.*

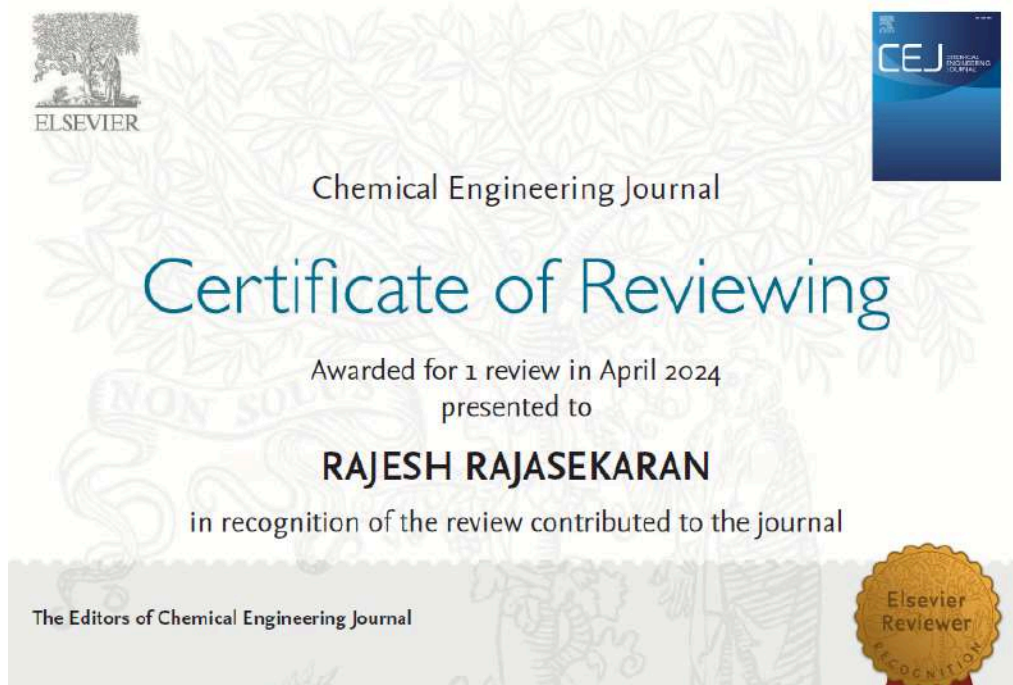
On 27th April 2024, Dr. R.Palani, Associate Professor and Dr.N.P. Kavitha, Assistant Professor has attended the first IICHe's, Industry and Institute Summit at Chennai and gained the insights about the industry-institute tieup towards the societal needs.



Dr. R. Rajesh @ Nithyanandam, Associate Professor has attended one day “PROJECT MANAGEMENT WORKSHOP” organized by PALS, India via online platform. Also he has received appreciation for his journal reviewership at Elsevier.



Faculty Achievement - *acknowledgement*



Mr. N. Arun Prem Anand, Assistant Professor has successfully completed the NPTEL course on Biological Process Design for Wastewater Treatment, a FDP program.



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

N ARUN PREM ANAND

for successfully completing the course

Biological Process Design for Wastewater Treatment

with a consolidated score of **72 %**


Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Jan-Mar 2024)

Roll No: NPTEL24CH06S544100323

Duration of NPTEL course : 8 Weeks

Mr. S. Jai Ganesh, Assistant Professor has been recognized as Star Performer 2023-24, by SVCE and appreciated during College day 04th April 2024.



Students Participation: *achieving accolades.*

During National Conference on Technological Innovations in Chemical Engineering Towards Sustainability - TICHS'23, Student team lead by SIVA VISHNU KS, final year B.Tech Chemical Engineering students presented a paper, mentored by Dr. M.Srividhya, Assistant Professor.



13th Smt. MANJULA MUNIRATHINAM MEMORIAL CRICKET TROPHY 2024 from April 1st to April 5th, 2024. 16 colleges are participating in and around Chennai, were Student Vignesh kumar, from 2nd year B.Tech Chemical Engineering, has played in SVCE Team which secured 3rd position.



எஸ்விசிஇ அரை இறுதிக்கு முன்னேற்றம்

● சென்னை

பொறியியல் கல்லூரிகளுக்கு இடையிலான மஞ்சளா முனிரத் தினம் நினைவு கிரிக்கெட் தொடர் கவர்ப்பேட்டையில் உள்ள ஆர்எம்கே கல்லூரி வளாக மைதா னத்தில் நடைபெற்று வருகிறது. இதில் நேற்று நடைபெற்ற கால் இறுதி ஆட்டம் ஒன்றில் ஆர்எம்கே - எஸ்விசிஇ அணிகள் மோதின. முதலில் பேட் செய்த எஸ்விசிஇ அணி 20 ஓவர்களில் 6 விக்ெட்கள் இழப்புக்கு 112 ரன்கள் எடுத்தது. நிதிஷ் 27, நிரஞ்ஜன் 26 ரன்கள் சேர்த்தனர். ஆர்எம்கே அணி தரப்பில் ஷியாம் கணேஷ் 2 விக்ெட்கள் கைப்பற்றினார்.

113 ரன்கள் இலக்குடன் பேட் செய்த ஆர்எம்கே அணி 19 ஓவர்களில் 98 ரன்களுக்கு ஆட்டமிழந்தது. அதிகபட்சமாக சுந்தர் 29 ரன்கள் சேர்த்தார். எஸ்விசிஇ அணி தரப்பில் பாலா, சஞ்சு ஆகியோர் தலா 3 விக்ெட்கள் கைப்பற்றினர். 15 ரன்கள் வித்தியாசத்தில் வெற்றி பெற்ற எஸ்விசிஇ அணி அரை இறுதிக்கு முன்னேறியது. இன்று நடைபெறும் அரை இறுதி ஆட்டத்தில் லயோலா அணியுடன் மோதுகிறது எஸ்விசிஇ. லயோலா அணி கால் இறுதி சுற்றில் சத்யபாமா அணியை 3 விக்ெட்கள் வித்தியாசத்தில் வீழ்த்தியது.

இன்று நடைபெறும் மற்றொரு அரை இறுதி ஆட்டத்தில் எஸ்ஆர்எம் பல்கலைக்கழகம் - சவீதா பல்கலைக்கழகம் அணிகள் மோதுகின்றன. எஸ்ஆர்எம் அணி கால் இறுதி சுற்றில் 42 ரன்கள் வித்தியாசத்தில் விஜய் பல்கலைக்கழக அணியையும், சவீதா பல்கலைக்கழக அணி 9 விக்ெட்கள் வித்தியாசத்தில் ஜேப்பியார் கல்லூரி அணியையும் வீழ்த்தின.

3rd and 4th POSITION MATCH

Match 16: SVCE, Sriperumbudur Vs Saveetha University

Toss won by SVCE, Sriperumbudur and elected to bat first.

SVCE, Sriperumbudur won the match by 28 runs.

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: Equip students with the necessary skills and knowledge to prosper in their career in Chemical Engineering and related domains.

PEO2: Encourage students to Pursue advanced learning and engage in research with internationally acclaimed institutions and foster professional growth.

PEO3: Empower students with leadership qualities to succeed in diversified fields with ethical administrative acumen and adapt to the rapid technological advancements and innovations.

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.

P04: 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.

P05: 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.

P06: 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.

P07: 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.

P08: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

P09: 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

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 Educational Objectives

PEO1: Function effectively to solve complex industrial problems using Chemical engineering concepts and also in expanding areas of Energy and Environmental industries

PEO2: Pursue their careers in Research and Development towards an advanced degree in Chemical engineering and allied technical discipline.

PEO3: To become Professional Leaders in the complex work environment.

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.

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: Usage of modern engineering tools to design and conduct experiments to develop quality chemical processes by considering the cost, safety and environmental aspects.

Editorial Team: Dr. N. Meyyappan, HOD/CHE & Mr. S. Jai Ganesh, AP/CHE.