Sri Venkateswara College of Engineering

DEPARTMENT OF CHEMICAL ENGINEERING

NEWSLETTER

THE CATALYST

ACCELERATING YOUR GROWTH

Volume - 2, Issue - XI, November, 2023

Sri Venkateswara College of Engineering

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

Dear Junior Chemical Engineers of SVCE,

As an alumnus of SVCE, I feel a deep connection with each one of you embarking on this exciting journey in chemical engineering. Reflecting on my own time at SVCE, I vividly remember how the rigorous curriculum, supportive faculty, and the vibrant campus life not only provided me with a strong academic foundation but also shaped my perspectives and aspirations. It was here that I learned to balance theory with practical application and to embrace challenges as opportunities for growth.

Today, I write to you to share the immense potential and diverse opportunities that await you in the world of chemical engineering. My journey from SVCE to the professional world has been filled with learning, growth, and diverse experiences, all rooted in the valuable lessons I learned during my time at our esteemed institution.

1. The World of Opportunities in Chemical Engineering Chemical engineering is not just a profession; it's a gateway to a multitude of industries and roles. Whether your interest lies in the traditional sectors like petroleum and chemical industries, or in the rapidly evolving fields of biotechnology, environmental engineering, and materials science, the scope is limitless. The skills you acquire at SVCE are versatile and highly valued across various sectors.

2. Diverse Career Paths Research and Development: Innovate and develop new processes and products in industries or academic institutions. Process Engineering: Optimize and manage production processes in manufacturing plants. Environmental Engineering: Address environmental challenges and work towards sustainable solutions. Pharmaceuticals: Engage in the development and production of drugs and medical treatments. Energy Sector: Contribute to the evolving landscape of renewable energy and sustainability. Management and Consulting: Utilize your technical knowledge in a business context, addressing challenges and improving efficiency. Data Science: Apply your analytical skills to extract insights from complex data, optimizing processes, and driving innovation across industries.

3. The Evolving Landscape The field of chemical engineering is constantly evolving with technological advancements and societal needs. From working on renewable energy solutions to contributing to cutting-edge medical research, the impact of chemical engineers is profound and far-reaching. The emergence of data science as a pivotal skill in this landscape cannot be overstated. Your analytical abilities, combined with chemical engineering fundamentals, can open doors to roles that involve big data analytics, predictive modeling, and decision-making strategies in various sectors.

4. Lifelong Learning The journey doesn't end at graduation. The field demands continuous learning and adaptation. Embrace this as an opportunity to grow and excel. Stay curious, stay hungry for knowledge, and the sky is the limit.

5. Your Unique Journey Remember, your path in chemical engineering is uniquely yours. Explore, discover, and carve a niche that resonates with your passions and aspirations. The foundation you build at SVCE is just the beginning.

In conclusion, the world needs more innovative and dedicated chemical engineers. Your journey at SVCE is preparing you to be part of a community that shapes the future. Embrace the challenges, seize the opportunities, and remember that you can make significant contributions to the world. Please feel free to reach out to me (via LinkedIn) for any career related discussion, cricket related chats, or if you are visiting Singapore.

Wishing you all the best in your endeavors,

Proud Alumnus

Shri. Srinath Sridharan

Batch 2001 - 2005
B.Tech Chemical Engineering.
Senior Manager,
Simon-Kucher & Partners
Singapore.

Industrial Visit: *Learning beyond classroom*

On 04th November 2023, second year of B.Tech Chemical engineering students had an industrial visit to M/s. Indian Oil, Lube Division, Chennai, Tamil Nadu.

Industrial Visit: *Learning beyond classroom*

On 29th November 2023, first year of B.Tech Chemical engineering students had an industrial visit to M/s. Roop Polymers, Sriperumbudur, Tamil Nadu.

Events participated by Faculty: *Train the trainer.*

During 15th - 17th November, Dr. R. Rajesh @ Nithyanandam, Associate Professor, has been trained in Virtual LABS by Faculty Development Program, held virtually through PALS VLAB 2023-24 initiative with NITK Surathkal.

Dr. N. Meyyappan, Professor and HOD and Dr. R. Govindarasu, Associate Professor and Assistant HOD, herewith record their particpation at IRMRA's 24 Rubber Coference & Exhibition, held at Chennai Trade Centre.

INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION

Certificate of Participation

This Certificate is presented to:

Dr. N. Meyyapan, Professor and Head

Department of Chemical Engineering,
Sri Venkateswara College of Engineering

For Participating at

IRMRA's 24th Rubber Conference & Exhibition
21st - 23rd September 2023 at Chennai Trade Centre

DR. K RAJKUMAR — T. V. SETHUMADHAVAN — SUCHISMITA SAHOO

INDIAN RUBBER MANUFACTURERS RESEARCH ASSOCIATION

Certificate of Participation

This Certificate is presented to:

Dr.R Govindharaju, Associate Professor

Department of Chemical Engineering,
Sri Venkateswara College of Engineering

For Participating at

IRMRA's 24th Rubber Conference & Exhibition
21st - 23rd September 2023 at Chennai Trade Centre

DR. K RAJKUMAR — T. V. SETHUMADHAVAN — SUCHISMITA SAHOO

During 3rd July to 7th July 2023. Ms. A.C. Vijaya Lakshmi and Dr. D. Sivakumar, Assistant Professor has participated and successfully completed the 5-day Online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE).

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Ms. Vijayalakshmi. A. C from Sri Venkateswara College of Engineering, Chennai has participated and successfully completed the 5-day Online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 3rd July to 7th July 2023.

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

On 25th July 2023, Dr. Philip Bernstein Saynik, Assistant Professor, has attended the webinar titled "Nano Materials for Energy Harvesting and Storage", organised by Dept. of Physics, Koneru Lakshmaiah Education Foundation (KL University)

CERTIFICATE
OF PARTICIPATION

This Certificate is Presented to

Dr. Philip Bernstein Saynik

Sri Venkateswara College of Engineering, Sriperumbudur , Chennai

For the active participation in A National-Level (Online) Guest lecture on

"Nano Materials for Energy Harvesting and Storage" on 25th July 2023

Jointly organised by Department of Physics, Koneru Lakshmaiah Education Foundation (Deemed to be University), Guntur, Andhra Pradesh and Materials Research Society of India (MRSI), India

Dr. G. Sunita Sundari, Convenor, Dept. of Physics, KLEF
Dr. S. Shanmugan, Convenor, Dept. of Physics, KLEF
Dr. K. Swapna, HOD, Dept. of Physics, KLEF
Dr. M.Siva Ganga Prasad, Coordinator, FED, KLEF
Prof. K. Subrahmanyam, Principal - Sciences, KLEF
Prof. A. Jagadeesh, Director FED, KLEF

Co - Curricular activities: *Ideathon*

During 1st - 18th November 2023, Ms. Kavi Savama of third year B.Tech Chemical Engineering is a finalist in the "The Second Edition of iCUBE" - a National level Intercollegiate Technical event, held at Sri Venkateswara College of Engineering. The team was mentored by Dr. Philip Bernstein Saynik, Assistant Professor.

SVCE | Sri Venkateswara College of Engineering

An Autonomous Institution Affiliated To Anna University
Pennalur,Sriperumbudur Tk - 602117,Tamilnadu | www.svce.ac.in

CERTIFICATE OF APPRECIATION

This is to certify that

Kavi Savama G

of

Sri Venkateswara College of Engineering

was a FINALIST , for presenting a paper titled Extraction of Alcohol using Scum from Petroleum Sludge

under the category Idea-O-Lite in ***The Second Edition of iCUBE*** - A National Level Intercollegiate Technical Event, organized by Students' Council in association with SVCE Science Club of Sri Venkateswara College of Engineering, held between 01.11.2022 and 18.11.2022.

Dr. N. R. Sheela
Coordinator,SVCE Science Club

Dr.R.Muthuvumaraswamy
Dean-Research,SVCE

Dr.S.Ganesh Vaidyanathan
Principal, SVCE

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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.

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: 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

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: 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.