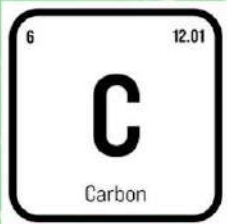


DEPARTMENT OF
CHEMICAL
ENGINEERING
NEWSLETTER

THE



CATALYST
ACCELERATING YOUR GROWTH

Volume - 2, Issue - V, May, 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.

Rare Talent & Appreciation - on Annual Day.

The Rare Talent of Student V.K. Vignesh, third year B.Tech Chemical Engineering has been appreciated by awarding the Panickker award of SVCE, that added the feather in his cap.



Rare talent

Vignesh V.K. (Chem-III) has been awarded the **Panickker Award** for his impressive research accomplishments at IIT-M and Caltech, outstanding leadership skills and a dedication to serving his community.



This appreciation is also articulated well in the local language newspaper and, the snippet is given below,

ஸ்ரீ வெங்கடேஸ்வரா பொறியியல் கல்லூரியில் கல்லூரி ஆண்டு விழா



ஸ்ரீபெரும்புதூர், மே.07-

ஸ்ரீபெரும்புதூர் அடுத்த பென்னலூர் பகுதியில் ஸ்ரீ வெங்கடேஸ்வரா பொறியியல் கல்லூரி இயங்கி வருகிறது. கல்லூரியின் ஆண்டு விழா கல்லூரி வளாகத்தில் நடைபெற்றது. விழாவிற்கு கல்லூரியின் முதல்வர் கணேஷ் வைத்தியநாதன் தலைமை தாங்கி ஆண்டு அறிக்கை வாசித்தார்.

இந்தவிழாவில் எல்.டி.ஐ.ஐ.மென்ட்ரி நிறுவனத்தின் மூத்த இயக்குனர் அனந்த கிருஷ்ண வெங்கட்ராமன் சிறப்பு விருந்தினராக கலந்துகொண்டு கல்லூரியில் வளரும் பொறியாளர் நாட்டு நலப்பணி திட்டம் தேசிய மாணவர் படை பிறந்த விளையாட்டு வீரர் உள்ளிட்ட பல்வேறு பிரிவுகள் சிறந்து விளங்கிய 40 மாணவர்களுக்கு தேவகி முத்தையா நன்கொடை விருது வழங்கி சிறப்புரையாற்றினார். விழாவில் கல்லூரி மாணவர் தலைவர் சாதனா வரவேற்றார் துணை தலைவர் ஆதித்யன் நன்றி கூறினார். விழாவில் கல்லூரி பேராசிரியர் மாணவர்கள் ஏராளமானோர் பங்கேற்றனர்.

Sponsored Industrial Visit: Balanced Learning



First years visit to Sholinganallur Milk Dairy of TamilNadu Cooperative Milk Producers Federation limited, on 9th May 2023.



Final years visit to M/s. Kothari Petrochemical Limited, Manali, Chennai on 17th May 2023.

Fostering Research: Awards & Achievements:



Dr. R. Rajesh @Nithyanadam, ASP/CHE, has been appreciated on his achievement of reaching his h-index 13 and with more than 2000 citations for his research contributions.

Faculty Research Day was conducted on 26 May 2023, at Department of Chemical Engineering, inline with Sri Venkateswara College of Engineering and following papers are presented by the faculty/research scholars were presented.

S.No	Name of the Scholar (FT/PT(I)/PT(E)/	Title of the Abstract	Name of the Supervisor
1.	Dr. G. Sudha, ASP	Numerical Investigation of Radiator Cooling Using Nanocomposites	-
2.	Mr. S. Rajasekar, AP, PT(I)	Study of artificial neural network techniques for predicting drying kinetics and characteristics of paddy in a tray dryer	Dr. N. Meyyappan

S.No	Name of the Scholar (FT/PT(I)/PT(E)/	Title of the Abstract	Name of the Supervisor
3.	Dr.M.SRIVIDHYA,AP	Isolation and characterization of amentoflavone (BSA)coated polymer nanoparticles using Cassia fistula leafextract against antibacterial and anticancer activity.	-
4.	Dr. N. P. Kavitha, AP	Degradation of organic/inorganic pollutants through Photofenton Membrane Bioreactor (PFMBR) and Lumped kinetic modeling in pharmaceutical effluent	-
5.	Dr.G.Manikandan,AP	A non-conventional and low-cost adsorbent for the adsorption of basic dye from aqueous solution	-
6.	Mr. N. Arun Prem Anand, AP, PT(I)	Modeling and simulation of catalytic degradation of industrial effluents	Dr. R. Palani
7.	Dr. Rajesh @ Nithyanandam Rajasekaran, ASP	Review on heavy metal removal by biosorbent.	-
8.	Dr. R. Palani, ASP	Evaluation of the synergistic effect of enzyme consortia and deep eutectic solvent for the enhancement of phycoerythrin extraction from red algae	-





Extracurricular activities:

Sri Venkateswara College of Engineering, YRC Student Chapter has been awarded the best among the all college chapters during 2022-2023, at World Red Cross Day Celebrations.



Student Mr. K. Chezian, Final year Chemical Engineering, has been bestowed as YRC Best Volunteer award, during the occasion of World Red Cross Day celebration.



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

P01: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

P02: Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

P03: 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.

P012: 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: 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.

PE03: Design processes within realistic constraints such as economic, social, ethical, environment, health and safety conditions.

PE04: 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.

PE05: 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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