



KPR Institute of
Engineering and
Technology

Learn Beyond

(Autonomous, NAAC "A")

Avinashi Road, Arasur, Coimbatore.

Department of Chemical Engineering



1 Issue

July - September, 2024

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Vision and Mission Department

Vision

To become a premier Institute of academic excellence by imparting technical, intellectual, and professional skills to students for meeting the diverse needs of industry, society, the nation and the world at large.

Mission

- Commitment to offer value based education and enhancement of practical skills
- Continuous assessment of teaching and learning processes through scholarly activities
- Enriching research and innovative activities in collaboration with industry and institute of repute
- Ensuring the academic processes to uphold the culture, ethics and social responsibility

Vision

To be a center of academic and research excellence in chemical engineering to cater to the diverse needs of industry, society and the global community.

Mission

- Provide quality education that integrates values and practical skills to ensure effective learning outcomes
- Promote research, innovation, and collaboration with industries and institutions of repute
- Inculcate professionalism, ethics, lifelong learning and social responsibilities



The American Institute of Chemical Engineers (AICHE) KPRIET Students Chapter on 10th August 2024, marking a significant milestone in the department's commitment to advancing chemical engineering education. The event was graced by the Chief Guest, Dr. Nitu Joseph, Co-founder of Declutter Solutions, Coimbatore, who shared her valuable insights on entrepreneurship and the energy and environmental sectors, inspiring students to explore innovative career paths. The event began with a welcome address, followed by a video presentation highlighting the crucial role of chemical engineering in solving global challenges, aligning with the mission of AICHE to promote innovation and sustainability. Dr. S. Balasubramanian, Professor & Head, Department of Chemical Engineering introduced the AICHE KPRIET Students Chapter, emphasizing the professional growth opportunities it offers students.

Ms. Varshini, Student President, presented the annual report for 2023 - 2024, showcasing the chapter's achievements and outlining future goals. The event concluded on a high note, with students and faculty expressing pride and enthusiasm for the chapter's role in shaping the future of chemical Engineering.



Inauguration

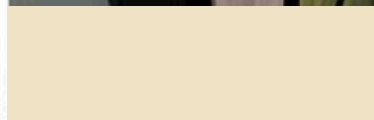
ChEA - Chemical Engineering Association
Academic Year 2024 -2025



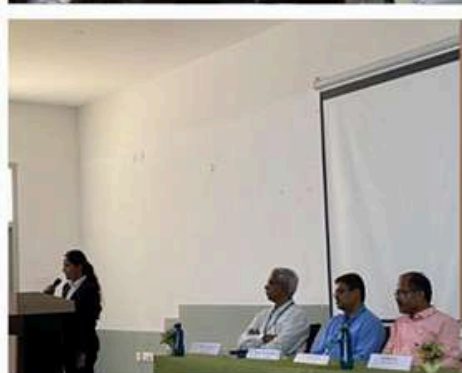
Department of Chemical Engineering
KPR Institute of Engineering and Technology
Coimbatore - 641104



Chemical Engineering Association (ChEA) was proudly inaugurated on 17th August 2024. The event was graced by Mr. Venkatesan Jayaraman, Lead Process Engineer, Oil and Gas Technology Division – SLB, Coimbatore, as the Chief Guest. Mr. Venkatesan shared his wealth of knowledge and industry experience with the students, offering valuable insights into advancements in the oil and gas sector and the evolving role of chemical engineers in modern industries. His address inspired students to explore cutting-edge technologies and pursue excellence in their academic and professional journeys. The inauguration of ChEA marks a new chapter for the department, with a focus on fostering collaboration, innovation, and professional development among students. The event set the stage for an exciting year of activities and initiatives aimed at enhancing the educational experience and preparing students for successful careers in Chemical Engineering.



Dr. S. Balasubramanian
Welcome Address



IChE Office Bearers



Dr. G. Surendran
Vote of Thanks

The Indian Institute of Chemical Engineers (IChE) KPRIET Student Chapter was successfully inaugurated on 23rd August 2024. The event was graced by Mr. S. Mohandas, Head of Design and Development at WOM Valves and Controls, as the Chief Guest.

During the event, Mr. Mohandas shared valuable industry insights, emphasizing the importance of innovation and skill development in Chemical Engineering. The inauguration also included the introduction of the newly appointed office bearers and an overview of the exciting activities planned for the academic year.

The IChE KPRIET Student Chapter aims to provide students with opportunities for professional growth, networking, and exposure to the latest industry trends, setting the stage for a year of impactful learning and collaboration.



Dr. G. Madhan Mohan
Welcome Address

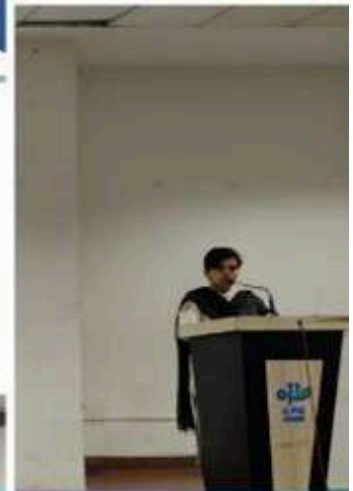


31 July, 2024

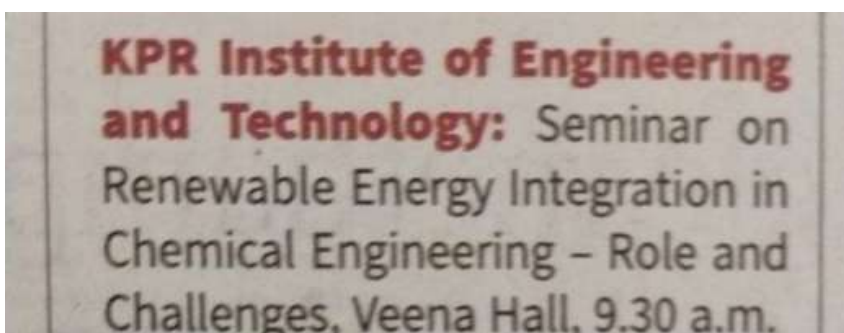
Our Speakers



Dr. S. Balasubramanian
About the Seminar



Dr. R. Umapriya
Vote of Thanks



Chemical Engineering
Division *of*
KPRIET Students Chapter
Coimbatore Local Chapter



The Institution of Engineers (India), Coimbatore Local Centre, in association with the Department of Chemical Engineering at KPR Institute of Engineering and Technology, Coimbatore, organized a one-day seminar on "Renewable Energy Integration in Chemical Engineering: Role and Challenges" on 31st July 2024 at Veena Hall, KPRIET. The seminar held under the aegis of the Chemical Engineering Division Board, IEI, began at 9:30 am with an inaugural session. Dr. G. Madhan Mohan, Honorary Secretary of IE(I), delivered the welcome address, outlining the institute's efforts in promoting science and technology. Dr. S. Balasubramanian, Professor and Head, Department of Chemical Engineering, provided an overview of the seminar's objectives. Dr. P. Ragupathy, Principal Scientist at CSIR - Central Electrochemical Research Institute, Karaikudi, delivered the chief guest address, discussing the critical role and challenges of integrating renewable energy in chemical engineering. Lt. Dr. A. K. Priya, Professor, Department of Chemical Engineering introduced the chief guest, and Dr. R. Umapriya, Assistant Professor III proposed the vote of thanks.

"Organizing seminars for undergraduate students is not just about sharing knowledge, it is about creating a platform where curiosity meets experience, and learning extends beyond the classroom."

A seminar is a conversation that bridges theory and practice, allowing students to question, explore, and grow into confident learners and future professionals

Agenda		
09.30 AM - 10.15 AM	Inaugural Function	
	Prayer Song	
	Welcome & Presidential Address	Dr J Krishnamoorthi Chairman IEI Coimbatore Local Centre
	About the Seminar	Dr S Balasubramanian Professor and Head, Department of Chemical Engineering KPR Institute of Engineering and Technology
	Introduction to the Chief Guest	Dr A K Priya Professor, Department of Chemical Engineering KPR Institute of Engineering and Technology & Committee Member, IEI Coimbatore Local Centre
	Chief Guest Address	Dr P Ragupathy Principal Scientist, Flow Battery Section Electrochemical Power Sources Division CSIR - Central Electrochemical Research Institute, Karaikudi
	Vote of Thanks	Dr G Madhan Mohan Honorary Secretary IEI Coimbatore Local Centre
Technical Sessions		
10.16 AM to 11.15 AM	Invited Lecture I	Topic: "Electrochemical Energy Storage and Conversion Systems: Great Challenges and Opportunities" by Dr P Ragupathy Principal Scientist, Flow Battery Section Electrochemical Power Sources Division CSIR - Central Electrochemical Research Institute, Karaikudi
11.15 AM - 11.30 AM	Tea Break	
11.31 AM - 01.00 PM	Invited Lecture II	Topic: "Role of Chemical Engineering in Renewable Energy" by Dr A Karthick Associate Professor Department of Electrical and Electronics Engineering KPR Institute of Engineering and Technology
01.01 PM - 02.00 PM	Lunch Break	
02.01 PM - 03.00 PM	Invited Lecture III	Topic: "Carbon - Free Fuel System" by Dr R Ranjith Kumar Project Officer, Department of Civil Engineering Indian Institute of Technology Madras
03.01 PM - 03.15 PM	Tea Break	
03.15 PM - 04.30 PM	Invited Lecture IV	Topic: "Technologies for Sustainable Production of Hydrogen" by Dr S Pranav Assistant Professor (Sr.G) Department of Chemical Engineering KPR Institute of Engineering and Technology
04.31 PM - 04.45 PM	Concluding Session	

Dr. P. Ragupathy, Principal Scientist, Flow Battery Systems, CSIR delivered the first lecture on “Electrochemical Energy Storage and Conversion Systems: Great Challenges and Opportunities,” focusing on the importance of R&D in overcoming challenges and the opportunities for innovation in electrochemical energy systems. Following this, Dr. A. Karthick, Associate Professor in the Department of Electrical and Electronics Engineering at KPRIET, presented on the “Role of Chemical Engineering in Renewable Energy,” highlighting the synergy between Chemical Engineering and renewable energy technologies and the role of chemical engineers in optimizing these processes. In the afternoon, Dr. R. Ranjith Kumar, Project Officer at IIT Madras, provided insights into “Carbon-Free Fuel Systems,” covering advancements in hydrogen fuel cells, battery technologies, and synthetic fuels, with a focus on the importance of green hydrogen produced from renewable sources. Dr. S. Pranav, Assistant Professor II, Department of Chemical Engineering, KPRIET concluded the seminar with a talk on “Technologies for Sustainable Production of Hydrogen,” discussing sustainable hydrogen production technologies and their integration with renewable energy systems.

The seminar concluded with a valedictory session and the distribution of certificates to participants. The event was a significant step in advancing understanding and collaboration in the field of renewable energy and its integration into Chemical Engineering practices.

Guest Lecture on “Modern Technologies in Agriculture”

Events Department



The Department of Chemical Engineering organized an expert lecture titled “Modern Technologies in Agriculture” on 3rd September 2024. The session was led by Mr. P. J. Balakumaran, Founder & President of Target Zero, Environment Conservation Trust, Pollachi. Mr. Balakumaran provided insightful perspectives on the integration of modern technologies in agriculture, emphasizing sustainable practices and innovations that contribute to environmental conservation. The lecture offered students a comprehensive understanding of how technology can transform agricultural practices, aligning with the global push for sustainability and food security. The event was well-received, sparking engaging discussions on the future of agriculture.

KPR Institute of Engineering and Technology
Learn Beyond (Autonomous, NAAC "A")

Department of Chemical Engineering
organizes a lecture on

AI: TRANSFORMING INDUSTRIES AND SHAPING THE FUTURE

Resource Person
Dr. Nisha Soms
Associate Professor
Department of CSE, KPRIET

10.09.2024 | 02.00 PM
Venue: Gitam Hall

kpriet.edu.in
f X YouTube LinkedIn /KPRIETonline

 
KPRIET supports the Sustainable Development Goals

The Department of Chemical Engineering organized a guest lecture titled "AI - Transforming Industries and Shaping the Future" for the II B.Tech. Chemical Engineering students on 10th September 2024. The guest speaker for the event was Dr. Nisha Soms, Associate Professor from the Department of Computer Science and Engineering (CSE), KPRIET. The session began with a welcome address by Ms. L. Dharani, Assistant Professor, Department of Chemical Engineering. Mr. R. Mugunthan, from III B.Tech. Chemical Engineering, introduced the chief guest, Dr. Nisha Soms, highlighting her expertise and contributions to the field of AI. Dr. Nisha's lecture covered the fundamentals of AI, its applications in various industries and how AI is transforming the chemical engineering landscape by optimizing processes, improving safety, and reducing costs. She emphasized the potential AI holds for innovation and automation in industries. The lecture concluded with an interactive session, where students asked insightful questions about AI's future in their field and its relevance in ongoing research and industry trends. The event was concluded with a vote of thanks by Ms. A.S. Shalini of III B.Tech. Chemical Engineering, expressing gratitude to the speaker.

Guest Lecture on “Transforming Vision into Reality: Key Skills for Entrepreneurial Action

Events
Department



The Chemical Engineering Association of the Department of Chemical Engineering organized an insightful lecture titled “Transforming Vision into Reality: Key Skills for Entrepreneurial Action” on 4th September 2024. The session was led by Dr. Nisha Soms, Associate Head of the Center for Innovation, Incubation, and Entrepreneurial Development (CIIED), Coimbatore. Dr. Soms delivered a compelling presentation, sharing invaluable skills necessary for students to turn their innovative ideas into successful entrepreneurial ventures. The seminar aimed to equip aspiring entrepreneurs with practical knowledge and strategies, helping them take their first steps toward transforming their visions into tangible realities.



“Entrepreneurship is the courage to turn ideas into impact, challenges into opportunities, and vision into value for society.”

Expert Talk on “Digital Tools and Software for Process Plant Design”

Events Department

EXPERT TALK



KPRIET
Learn Beyond

**DEPARTMENT OF
CHEMICAL ENGINEERING**

In Association with
AICHE KPRIET Students Chapter

Organises an Expert Talk on

**DIGITAL TOOLS AND SOFTWARE
FOR PROCESS PLANT DESIGN**

Resource Person

Dr S. BALASUBRAMANIAN, PhD
Professor and Head
Department of Chemical Engineering
KPRIET, COIMBATORE

3 PM - 4 PM
Wednesday 11, 2024

GITAM HALL

kpriet.edu.in | KPRIETonline



The Department of Chemical Engineering, in association with the AIChE KPRIET Student Chapter, organized an insightful Expert Talk on “Digital Tools and Software for Process Plant Design” on 11th September 2024. The session was led by Dr. S. Balasubramanian, Professor & Head of the Department of Chemical Engineering at KPRIET, who shared his expertise on the latest digital tools and software applications in process plant design. Dr. S. Balasubramanian provided valuable insights into how these tools enhance design efficiency, accuracy, and innovation in the field. The event was well-received by students and faculty, offering a comprehensive overview of cutting-edge technologies that are shaping the future of process engineering.

Orientation

Events
Department

Orientation on ACCREDITATION & NEP



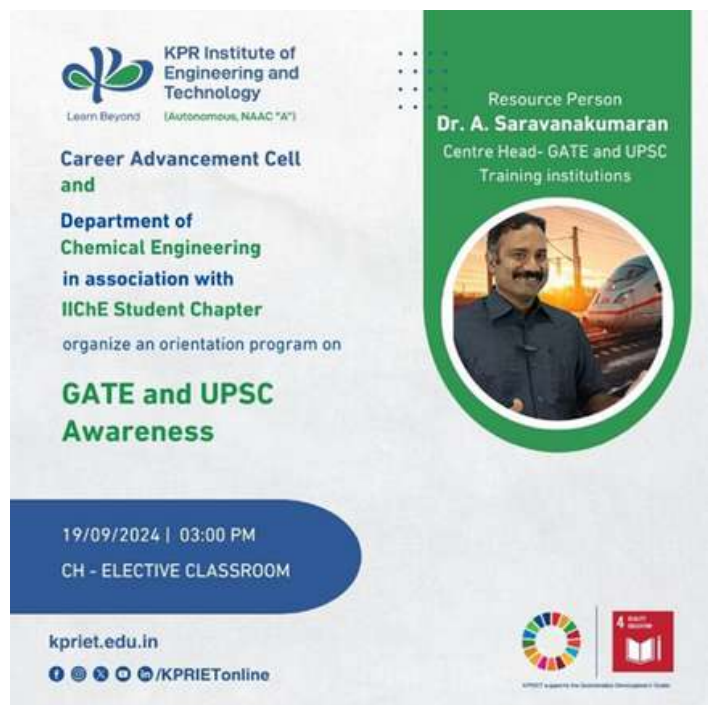
As part of the Boot Camp for II B.Tech. Chemical Engineering students, Dr. S. Balasubramanian, Professor & Head of the Department of Chemical Engineering, delivered an insightful lecture on the National Education Policy and Accreditation on 30th July 2024. The session aimed to familiarize students with the key aspects of the evolving educational framework and the significance of accreditation in shaping academic standards. The lecture empowered students with a deeper understanding of how these policies impact their educational experience and future career opportunities.

Orientation on Design Thinking



Dr. R. Umapriya, Assistant Professor III in the Department of Chemical Engineering, recently delivered an engaging session on "Design Thinking" to first-year students from the CSE, AD, AIML, MECH, and MI departments. The lecture introduced the principles and methodologies of design thinking, emphasizing its importance in problem-solving and innovation across various fields. Dr. Umapriya's insights aimed to equip students with a creative approach to tackle complex challenges and foster a mindset conducive to innovative thinking. The session was well-received, providing valuable perspectives for students as they embark on their academic journeys.

GATE Orientation



The Career Advancement Cell and Department of Chemical Engineering, in collaboration with the IICHe Student Chapter, organized an orientation program on “GATE and UPSC Awareness” on 19th September 2024. Dr. A. Saravanakumaran, Centre Head of GATE and UPSC Training Institutions, served as the resource person. He provided insights into the structure, preparation strategies, and career opportunities through GATE and UPSC exams. Dr. Saravanakumaran emphasized the importance of early preparation and discussed the potential for Chemical Engineers in PSUs and administrative roles. The session was interactive and highly beneficial for the students.



Webinar on “Renewable Energy and Environmental Prospects: A Vision for the Future”

Events Department



KPR Institute of Engineering and Technology
Learn Beyond (Autonomous, NAAC "A")

DEPARTMENT OF CHEMICAL ENGINEERING AND IICHE STUDENT CHAPTER JOINTLY ORGANIZES

Speaker

Dr. REDDY PRASAD
Associate Professor
Petroleum and Chemical Engineering programme
Universiti Teknologi Brunei



WEBINAR ON
RENEWABLE ENERGY AND ENVIRONMENTAL PROSPECTS: A VISION FOR THE FUTURE

<https://meet.google.com/hsn-kxrs-mwxj>

VIRTUAL MODE

CONVENOR
Dr. G. Surendran, AsP/ Chemical

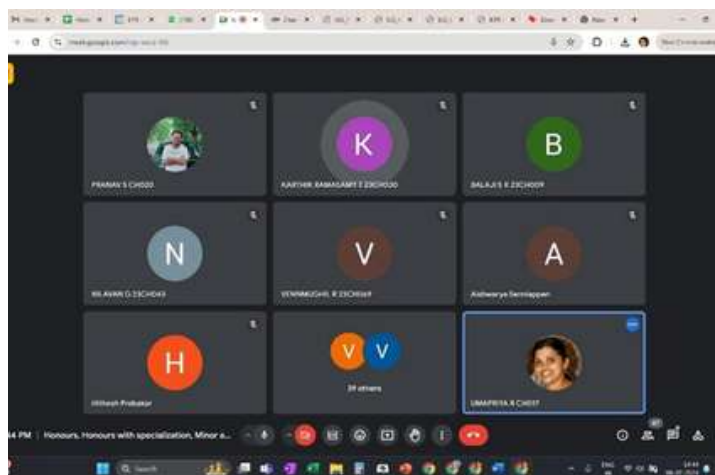
STUDENT CO-ORDINATORS
SHIREKA M, II YEAR-CHEM
THARANYA D, II YEAR-CHEM

 **30.08.2024 | 02.00 PM**

kpriet.edu.in      | KPRIETonline



The Department of Chemical Engineering hosted a webinar titled "Renewable Energy and Environmental Prospects: A Vision for the Future." Dr. Reddy Prasad, Associate Professor in the Petroleum and Chemical Engineering Programme at Universiti Teknologi Brunei, led the session. The webinar provided insights into various research opportunities in renewable energy, highlighting innovative approaches and future prospects in the field. Dr. Prasad's insights provided a comprehensive overview of emerging trends and the potential impact of renewable energy on environmental sustainability. The session was well-received, offering valuable knowledge and inspiration for students and faculty interested in advancing their understanding and research in renewable energy technologies.



An awareness session on Honours, Honours with Specialization, Minor and Capsule Courses was conducted for II B.Tech. Chemical Engineering students by Dr. S. Pranav, Assistant Professor II and Dr. R. Umapriya, Assistant Professor III from the Department of Chemical Engineering. The session provided an in-depth understanding of the various academic pathways available to enhance their learning experience.



Dr. S. Balasubramanian, Professor & Head, Department of Chemical Engineering, conducted an engaging interactive session on 6th July 2024 at Ragam Hall. The session focused on Honors programs, Honors with Specialization, Minor, Micro, and Nano specializations, offering valuable insights to the freshmen. Students from the Chemical, Civil, Electrical and Mechanical Engineering departments participated in the event. The session provided them with a comprehensive understanding of the academic pathways available, equipping them with knowledge to make informed decisions about their educational journey.

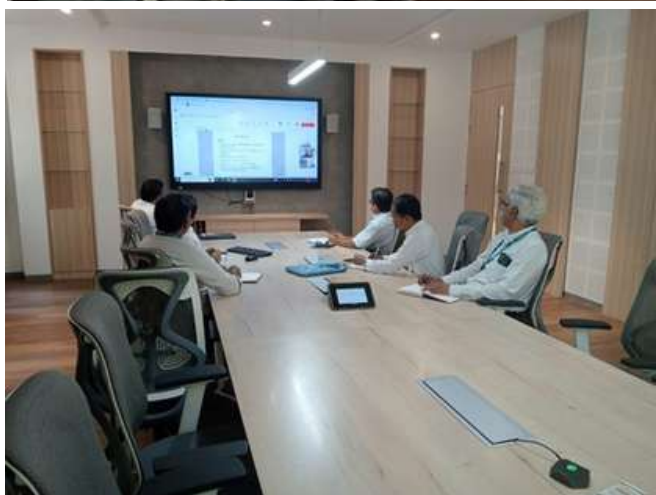
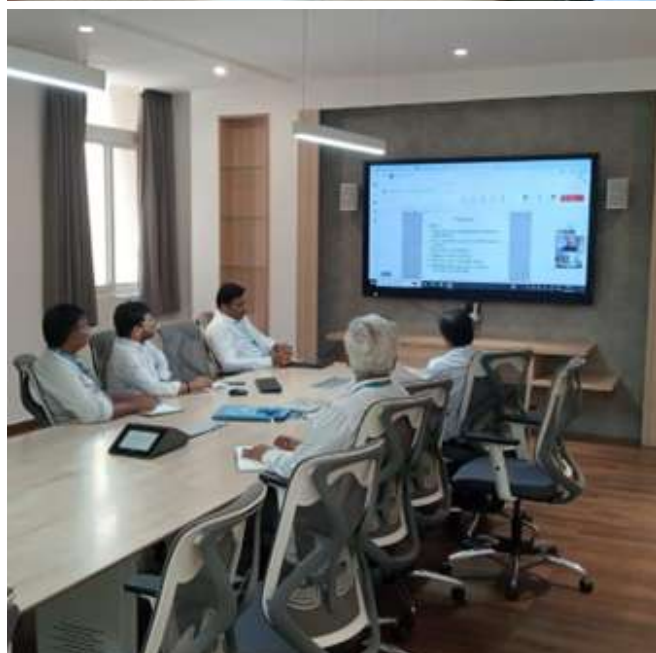


"Pursuing Excellence: The Significance of Honors in Undergraduate Chemical Engineering"

An undergraduate degree in Chemical Engineering provides students with a solid foundation in core principles such as thermodynamics, transport phenomena, reaction engineering, and process design. However, opting for an honors track adds significant value by cultivating advanced skills, deeper subject mastery, and research-oriented thinking. The honors pathway encourages students to go beyond the standard curriculum, engaging in specialized electives.

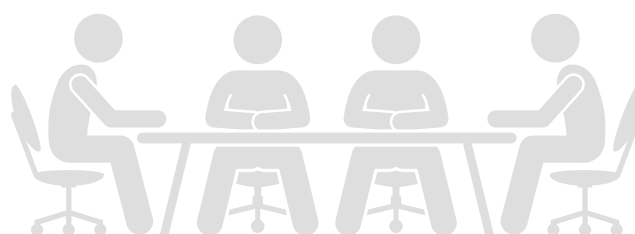
This exposure develops critical problem-solving abilities, analytical thinking, and technical communication skills, all of which are highly valued in academia, industry, and research organizations. From a career perspective, graduating with honors signals academic rigor and intellectual curiosity, providing a competitive edge in securing placements, internships, and graduate school admissions. It also demonstrates persistence, discipline, and a commitment to professional excellence. For those aspiring to pursue advanced studies or leadership roles in chemical and allied industries, the honors distinction lays a strong foundation for innovation and lifelong learning.

Online Interaction with Prof. Jens Ernst Born

Events
Department

On 26th September 2024, faculty members from the Department of Chemical Engineering engaged in an insightful online discussion with Prof. Jens Ernst Born from Germany. The primary focus of the interaction was on final year project grouping and evaluation, an essential aspect of the academic journey for our students. During the meeting, faculty members shared their insights and experiences, while Prof. Born provided valuable feedback and recommendations on best practices for effectively grouping students and assessing their projects. This collaborative exchange aimed to enhance the quality of project work and ensure a comprehensive evaluation process that aligns with international standards.

The department is grateful to Prof. Born for his time and expertise, which will undoubtedly contribute to enriching the educational experience for our final-year students as they embark on their project work. We look forward to implementing the insights gained from this discussion in our upcoming academic sessions.



Alumni Interaction with Faculty and Juniors

Events Department



The Department of Chemical Engineering was delighted to welcome back its alumni for the Alumni Homecoming event held on 28th September 2024. The event served as a platform for reconnecting, sharing experiences, and fostering a lasting bond between the department and its former students. Dr. S. Balasubramanian, Professor & Head of the Department and Dr. G. Surendran, Associate Professor and Mentor of the 2024 passed out batch, warmly interacted with the alumni, reminiscing about their time at the institute and discussing their professional journeys. The event strengthened the ties between the alumni and the department, offering valuable insights for current students through shared experiences and inspiring success stories.

Mr. J. Jimkoriyar, an esteemed alumnus of the 2024 batch, engaged with the IV B.Tech. Chemical Engineering students on 15th July 2024. During the interactive session, he shared his valuable experiences and insights from his academic journey and professional life, offering students practical advice on career development and industry expectations.



The Centre for Nanoscience and Technology (C-NAT) of the Center for Research and Development (CFRD) at KPRIET signed a Memorandum of Understanding (MoU) with Pushpagiri Research Center, Kerala on 29th August 2024. The MoU was formalized by Dr. Daniel Thangadurai, Associate Director of CFRD and Head of C-NAT, alongside Dr. S. Balasubramanian, Professor and Head of the Department of Chemical Engineering. This agreement focuses on the development of nanomaterials for medical applications, marking a significant step in advancing research and collaboration in the field.

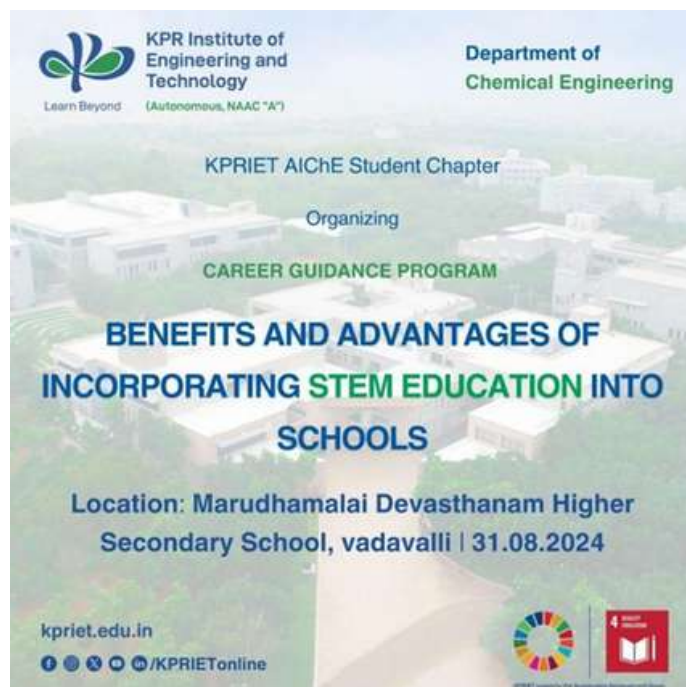
Wafe Auxiliary MD visit to Chemical Engineering Department



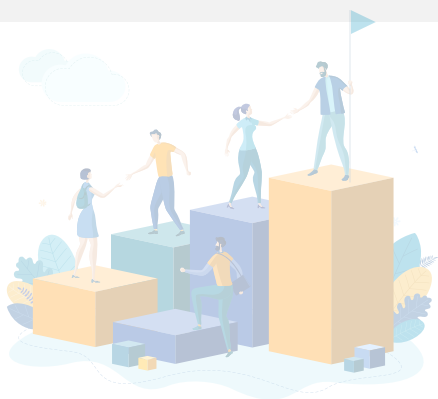
Events Department

The Department of Chemical Engineering had the privilege of hosting Mr. Ramakrishnan, MD of Wafe Auxiliary Chemicals Pvt.Ltd on 1st August 2024. Mr. Ramakrishnan's visit focused on several key problem statements aimed at advancing industrial processes. He discussed integrating data to eliminate pre-processing checks for raw materials, designing a rotary drum dryer with an infrared lamp to reduce moisture in modified starch, and optimizing solvent recovery from azeotropic distillation. Additionally, he highlighted the need for designing static mixers for epoxide mixing and emphasized the development of innovative starch-based products for the food industry, including slow-release fertilizers. His insights and interest in designing control systems for manufacturing processes provide valuable direction for future research and collaboration.



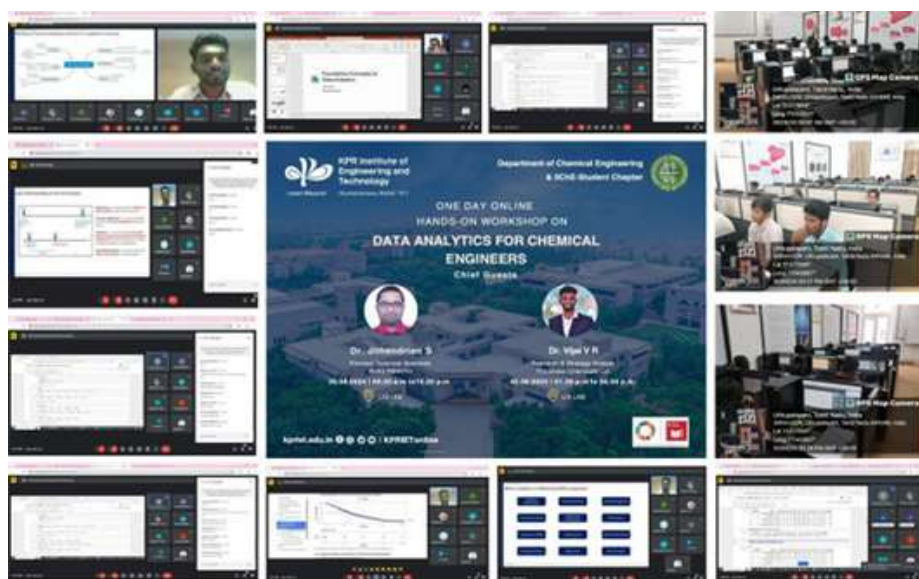


The AIChE KPRIET Students Chapter successfully organized an Institutional Social Responsibility (ISR) activity at Marudhamalai Devasthanam Hr Sec School, Vadavalli, Coimbatore, aimed at promoting the importance of STEM (Science, Technology, Engineering, and Mathematics) education.



Hands - On Workshop on “Data Analytics for Chemical Engineers”

Events Department



The IChE Students Chapter organized a Data Analytics Workshop for Chemical Engineering students on 30th August 2024 at the LIS Lab. The session was led by Dr. Jithendriam S. (Principal Technical Specialist, Nokia Networks) and Mr. Vijai V. R. (Research & Strategy Analyst, Thirumalai Chemicals Ltd).

The resource persons introduced students to essential tools and techniques for handling complex data in chemical engineering.

The workshop emphasized the critical role of data-driven decision-making in the field, covering topics from basic data processing to real-world applications. Students were introduced to Python, Excel, and MATLAB, focusing on tasks related to process optimization and chemical process control.



The session also featured hands-on exercises in data collection, cleaning, and analysis, as well as data visualization using Matplotlib and Excel. Participants had the opportunity to apply these skills to real-world chemical engineering problems, fostering teamwork and problem-solving abilities. The workshop concluded with positive feedback, with students appreciating the practical and relevant training. The event underscored the growing importance of data analytics in the chemical industry and encouraged students to explore advanced topics in the field.

Workshop on “Nano Material Preparation, Characteristics and its Applications”



The AIChE Student Chapter of the Chemical Engineering Department organized a comprehensive workshop on "Nano Material Preparation, Characteristics, and its Applications" on 14th September 2024. The event featured insightful lectures from Dr. R. Umapriya, Assistant Professor III; Dr. M. Laxmi Deepak Bhatlu, Assistant Professor III; and Dr. S. Pranav, Assistant Professor II. The workshop provided students with valuable knowledge on the preparation techniques, essential characteristics, and diverse applications of nanomaterials. Through expert guidance, participants gained hands-on experience and deepened their understanding of this cutting-edge field.



The Institution of Engineers (India), Coimbatore Local Centre, in association with the Department of Chemical Engineering at KPR Institute of Engineering and Technology, Coimbatore, celebrated “Royal Charter Day 2024” on 10th September 2024. The event, themed “Current Trends and Future Prospects in Photovoltaic Materials,” featured a keynote lecture by Mr. Arjun Moorthy, Founder and Director of Robbell Materials Research Centre (OPC) Pvt. Ltd., Salem.

The program commenced with a warm welcome and presidential address delivered by Dr. G. Madhan Mohan, Honorary Secretary and Chairman of IE(I), Coimbatore Local Centre. Dr. S. Balasubramanian, Professor & Head of the Department of Chemical Engineering at KPR Institute of Engineering and Technology, felicitated the event, adding his insights into the significance of Royal Charter Day.

Dr. A. K. Priya, Professor, Department of Chemical Engineering, KPR Institute of Engineering and Technology, emphasized the importance of Royal Charter Day and introduced the guest speaker through a recorded speech.

Mr. Arjun Moorthy's lecture provided an in-depth overview of photovoltaic cells, explaining their construction, usage, and the latest technological advancements in the field. He also discussed the future prospects of photovoltaic materials, highlighting their potential impact on sustainable energy solutions.

The event concluded with a vote of thanks by Ms. L. Dharani, Assistant Professor I in the Department of Chemical Engineering, KPR Institute of Engineering and Technology, expressing gratitude to the speaker, dignitaries, and attendees for making the event a success.



As part of the Teacher's Day celebrations, the Department of Chemical Engineering, in association with the Indian Institute of Chemical Engineers (IICHe) Student Chapter, organized a panel discussion on the theme "Future of Chemical Engineering" on 5th September 2024. The event was aimed at fostering critical discussions among students on the evolving trends, challenges, and opportunities in the chemical engineering field.

The panel comprised enthusiastic students from various academic years, each contributing valuable insights into emerging technologies, sustainability, and the role of chemical engineers in addressing global challenges such as climate change and resource management. The discussion provided a platform for students to explore the interdisciplinary nature of chemical engineering and its future potential in industries like renewable energy, materials and environmental engineering.

Following the panel, students organized a series of fun-filled activities for the teachers, making the event a perfect blend of learning and celebration. As a heartfelt gesture, the students also presented a small token of appreciation to all the teachers, acknowledging their dedication and guidance.

The event concluded with an interactive Q&A session and festivities, making the Teacher's Day celebration both memorable and insightful for all participants.



From Left to Right: Dr. S. Pranav, Assistant Professor II, Department of Chemical Engineering, Dr. R. Umapriya, Assistant Professor III, Department of Chemical Engineering, Dr. Nitu Joseph, Co-founder, Declutter Solutions Private Limited, Coimbatore and Dr. Sreechanth Sundaram, Co-founder, Declutter Solutions Private Limited, Coimbatore

On 1st July 2024, Dr. S. Pranav, Assistant Professor II, and Dr. R. Umapriya, Assistant Professor III, from the Department of Chemical Engineering, visited Declutter Solutions Private Limited, Coimbatore. The visit provided a valuable opportunity for academic-industry collaboration, as both faculty members engaged in discussions with the Declutter Solutions team to explore innovative solutions and applications within the chemical engineering field.



Dr. G. Surendran, Associate Professor, Department of Chemical Engineering with Mr. Ravi, Manager of S.R. Resins & Chemicals Industries, Coimbatore.

Dr. G. Surendran, Associate Professor, Department of Chemical Engineering, visited S.R. Resins & Chemicals Industries, Coimbatore on 8th July 2024. During the visit, Dr. Surendran had an insightful discussion with Mr. Ravi, Manager of S.R. Resins. The company, known for producing unsaturated polyester resins, faces two key challenges: reducing the cooling time of the resin manufacturing process, which currently takes over 7 hours, and addressing colour removal from the final products. Additionally, they explored effluent treatment methods to meet Zero Discharge Liquid (ZDL) standards, focusing on using natural adsorbents to remove toxic metals from industrial wastewater. These discussions highlight potential student projects and collaborative research opportunities.

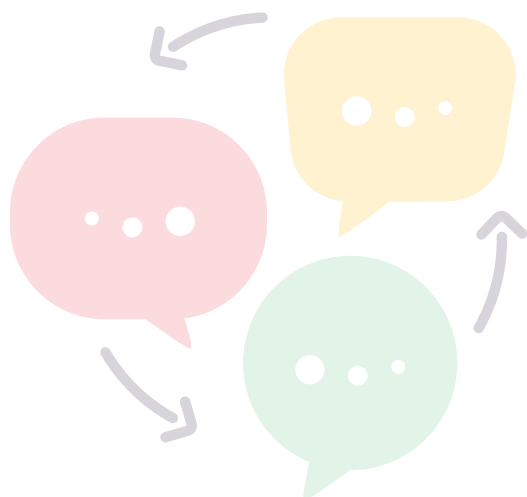


Dr. M. Laxmi Deepak Bhatlu, Assistant Professor III, and Mr. N. Arunkumar, Assistant Professor II, from the Department of Chemical Engineering, visited Mr. C. Dinesh, Senior Manager of United Cooling Systems Pvt. Ltd., on 31st August 2024. The visit focused on exploring potential collaboration opportunities, understanding industrial cooling technologies, and discussing research initiatives that align with the company's operations.

Discussion with Industry Professionals



Dr. S. Pranav, Assistant Professor II, was invited by Mr. Ramakrishnan, MD of Wafe Auxiliary Chemicals Ltd., to participate in a technical discussion with Mr. Presanjeeth of AAFINT, an air filter manufacturer, in Bengaluru on 10th August 2024. The meeting took place at a local restaurant, where key technical terms and potential collaborations were discussed. Mr. Presanjeeth graciously agreed to host industrial visits for both faculty and students, marking a successful and fruitful interaction.



“Stepping into industry is like seeing theory come alive, each visit strengthens the bridge between classrooms and chemical plants.”

CII and Agri Intex

Events
Department

CII members meet at Le Meridian, Coimbatore



Dr. S. Balasubramanian, Professor & Head, Department of Chemical Engineering, and Dr. S. Karthikeyan, Professor & Head, Department of Chemistry, represented KPRIET at the Confederation of Indian Industry (CII) members' meet held on 26th July 2024 at Le Meridian, Coimbatore. The event provided a platform for industry leaders and academic experts to engage in discussions on collaborative initiatives, industry trends, and the future of education-industry partnerships.



Agri Intex 2024



Dr. S. Balasubramanian, Professor & Head, Department of Chemical Engineering, and Dr. S. Karthikeyan, Professor & Head, Department of Chemistry, represented KPRIET at the Confederation of Indian Industry (CII) members' meet held on 26th July 2024 at Le Meridian, Coimbatore. The event provided a platform for industry leaders and academic experts to engage in discussions on collaborative initiatives, industry trends, and the future of education-industry partnerships.

Technical discussion with Mr. Gopala Krishnan, CEO, Eco Green Tech, Coimbatore



Dr. S. Pranav, Assistant Professor II, and Dr. G. Surendran, Associate Professor, from the Department of Chemical Engineering, held a technical discussion with Mr. Gopala Krishnan, CEO of Eco Green Tech, Coimbatore, on 28th August 2024. The meeting focused on placement opportunities for the 2025 batch of Chemical Engineering students and explored potential collaboration for mini-projects. This engagement opens doors for practical learning experiences and future industry connections for students.



Faculty members of the Department of Chemical Engineering visit various industries in-and-around Coimbatore as part of the industry-academia engagement initiative of the department. The visit provided valuable insights into real-time operations, industry practices and emerging technologies in various fields. Such interactions not only help faculty stay aligned with the latest industry trends but also enrich classroom teaching with practical perspectives, ultimately benefiting our undergraduate students and research scholars.

Importance of Industry–Academia Collaboration in the UGC Perspective

The University Grants Commission (UGC) emphasizes industry-academia collaboration as a vital mechanism to bridge the gap between theoretical knowledge and industrial practice. In its policy documents and quality benchmarks, the UGC highlights that higher education must not only impart academic excellence but also enhance employability, innovation, and research relevance.

Collaboration with industry provides students and faculty with, practical exposure, skill development, research and innovation, faculty enrichment, entrepreneurship and start-ups. From the UGC perspective, industry-academia collaboration is not an option but a strategic necessity-critical for producing graduates who are not only academically sound but also industry-ready, globally competent, and innovation-driven.

Peer Institute Visit

Events
Department

Visit to Coimbatore Institute of Technology



From Left to Right: Dr. Vivek Joe Bharath, Assistant Professor, Department of Chemical Engineering, Coimbatore Institute of Technology, Coimbatore, Dr. S. Pranav, Assistant Professor II and Mr. K. Murugesan, Assistant Professor II, Department of Chemical Engineering, KPRIET.

Dr. S. Pranav and Mr. K. Murugesan from KPRIET recently met with Dr. Vivek Joe Bharath from Coimbatore Institute of Technology to discuss the latest updates from the IICHe Regional Center, Coimbatore. The center, established to advance the field of Chemical Engineering, has made significant strides since its inception. It operates with a robust organizational structure designed to enhance collaboration and support professional and academic growth. Membership in the IICHe offers various categories with tailored benefits for different career stages, including specific programs for students and early-career professionals. The center actively promotes industry-academia linkages and supports research, consultancy, and partnerships. Key events such as major conferences provide valuable platforms for presenting research, with funding available to support student chapter activities. For professional development, the IICHe offers certification courses, training programs, and mentoring. The center also engages in community outreach to raise awareness about Chemical Engineering. Looking ahead, there are plans for expansion and new projects, with opportunities for institutes to contribute to these initiatives and support the IICHe's mission.

Interaction Meeting with Smt. Nirmala Sitharaman



Dr. S. Balasubramanian, Professor & Head of the Department of Chemical Engineering at KPRIET, participated in an interaction meeting with Smt. Nirmala Sitharaman, the Indian Finance Minister, held at CODISSIA on 11th September 2024. The meeting provided a valuable opportunity for dialogue between industry, academia and government, focusing on key issues related to industry, finance, and education.

Mock Interview with Faculty



Ms. K. Akshaya, IV B.Tech. Chemical Engineering attending a one-on-one placement interview with Dr. S. Balasubramanian, Professor & Head, Department of Chemical Engineering.



Ms. J. Varshini, IV B.Tech. Chemical Engineering attending a one-on-one placement interview with Dr. R. Umapiya, Assistant Professor III, Department of Chemical Engineering.



Mr. G. Kumaran, IV B.Tech. Chemical Engineering attending a one-on-one placement interview with Dr. E. Nakkeeran, Associate Professor, Department of Chemical Engineering.

Industrial Visit to Wafe Auxiliary Chemicals Pvt.Ltd. Coimbatore



On 31st August 2024, Dr. S. Pranav, Assistant Professor II, and Dr. G. Surendran, Associate Professor, led second-year B.Tech. Chemical Engineering students on an industrial visit to Wafe Auxiliary Chemicals Pvt. Ltd., Coimbatore. The technical experts at the facility provided insights into their starch production process from maize, offering students an opportunity to explore industrial equipment and instruments firsthand. The visit was an exciting learning experience for the students, enhancing their understanding of real-world chemical engineering processes.



Wafe Auxiliary Chemicals Pvt. Ltd., was established in 1995 and formally incorporated in 2010, Wafe is a leading innovator in organic and auxiliary chemicals, focusing on machinery performance improvement, energy efficiency, and sustainable effluent management. Faculty members also had the opportunity to interact with the leadership team, gaining valuable insights into how chemical engineering principles translate into industrial-scale innovation

“It was remarkable to see how Wafe integrates sustainability into every stage of product development. This visit gave us several ideas on how classroom concepts can be more closely tied to real-world applications,”

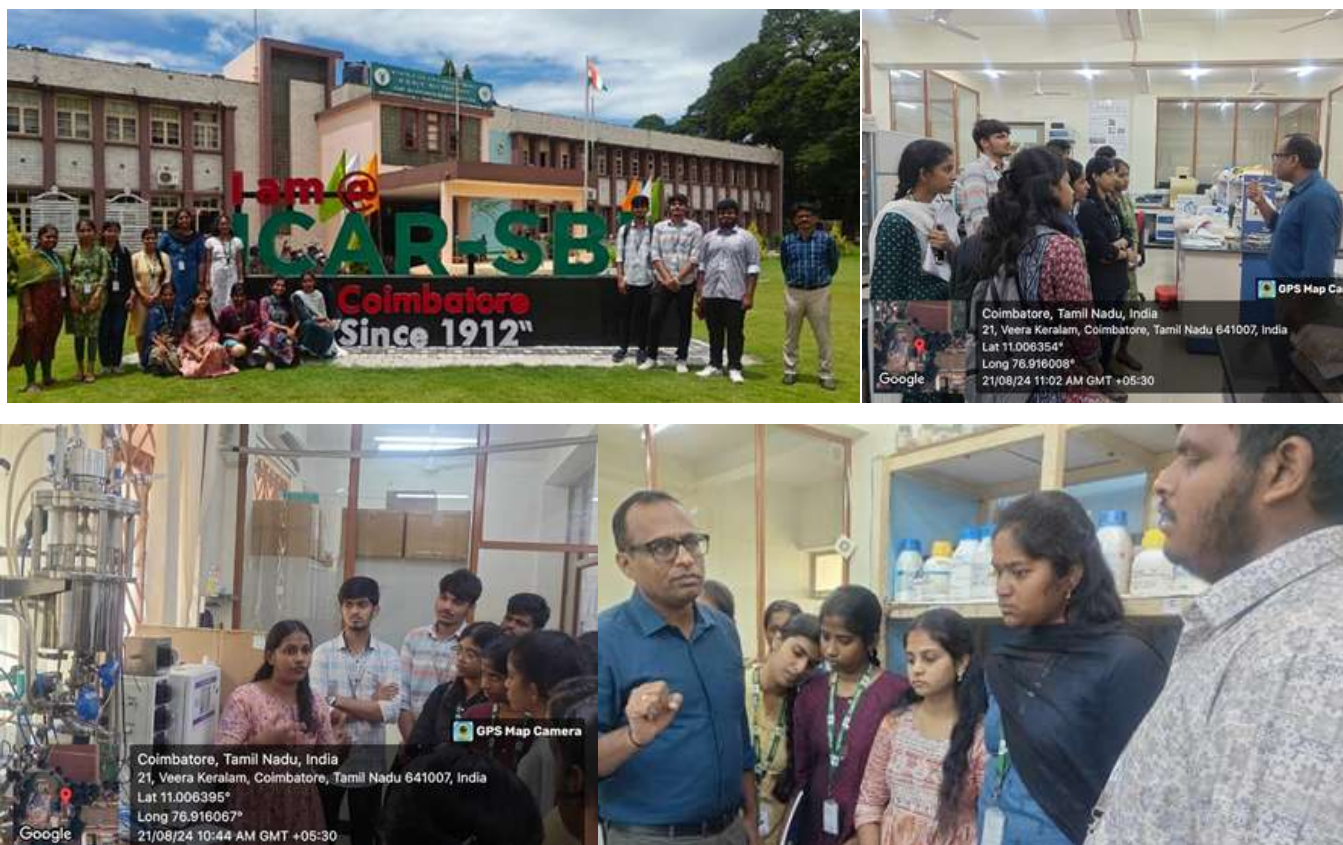
— Dr. G Surndran, Associate Professor, Department of Chemical Engineering

“For our students, this exposure highlighted the importance of industry-ready solutions. The way Wafe balances innovation with compliance to environmental norms is truly inspiring,”

— Dr. S Pranav, Assistant Professor, Department of Chemical Engineering

The engagement of the department with companies like Wafe reflects its commitment to bridging the gap between academia and industry, ensuring that both undergraduate students and research scholars benefit from practical insights into the evolving chemical engineering landscape.

Indian Council of Agricultural Research (ICAR) Institute Visit



Lt. Dr. A. K. Priya took students from the Fermentation Engineering course to the Indian Council of Agricultural Research (ICAR) Institute on 21st August 2024. The visit focused on media sterilization processes, specifically batch and continuous sterilization methods essential for pure culture fermentation.

The objective was to provide students with a comprehensive understanding of the principles, advantages, and limitations of these sterilization techniques. Students observed demonstrations of sterilization equipment and engaged with researchers to gain practical insights into the operational aspects and quality control measures.

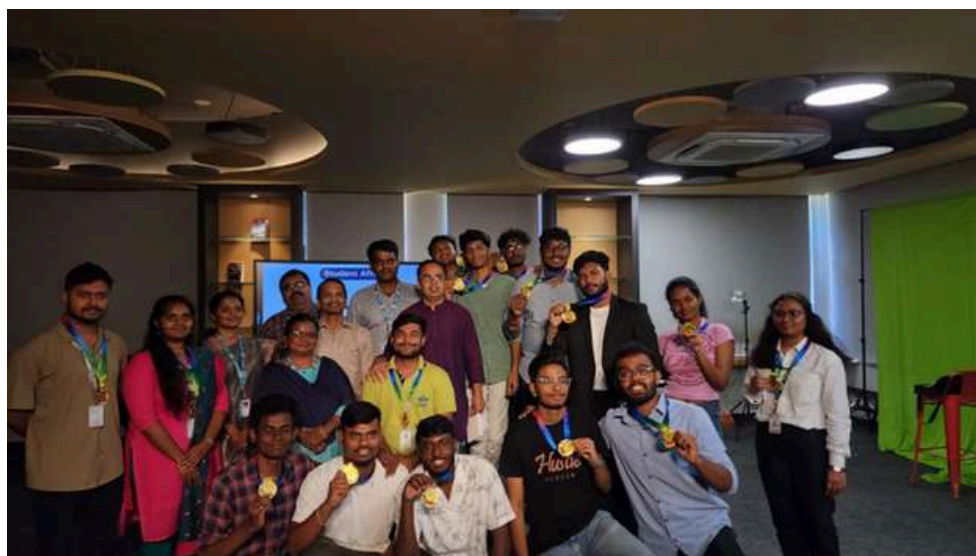
The visit successfully enhanced students' knowledge of sterilization methods, including the factors affecting efficacy and the practical considerations involved in both batch and continuous processes. Feedback will be gathered to assess the effectiveness of the session and to inform future improvements.

Hackathon Winners



Mr. S. Rohithkumar, IV B.Tech. Chemical Engineering, Ms. J. Harshini, III B.Tech. Chemical Engineering and Ms. S. Vidula, III B.Tech. Chemical Engineering won first prize in the National level Inter collegiate Hackathon THEERVU'ATHON 24, organized by Center for Innovation, Incubation and Entrepreneurship (CII&E) and E-Cell of PSG College of Arts and Science, Coimbatore in Association with Startup TN, Government of Tamilnadu on 6th August, 2024 at GRD Auditorium, PSGCAS. Their achievement is a proud moment for the department.

Participation in AVATAR 2024 - Dance Competition



Mr. P. Hithesh and Mr. M. Narashimman of II B.Tech. Chemical Engineering participated in the dance participation AVATAR 2024 organized by Student Affairs of KPRIET.

Student's Achievement

Events
Department

Participation in Dance Competition in SARVAM 2024



Ms. S. Vidula of III B.Tech. Chemical Engineering, Ms. V. Monika of IV B.Tech. Chemical Engineering, Mr. Basil Viju of III B.Tech. Chemical Engineering, Mr. M. Narashimman of II B.Tech. Chemical Engineering participates in dance competition SARVAM 2024 organized by Sangamam and Ignitron Clubs of KPRIET. Their dynamic performances contributed to the vibrant atmosphere of the event and highlighted the diverse talents within our department.

Poster Presentation Runner-Up



Ms. M. Shireka and Ms. R. Vennmughil of II B.Tech. Chemical Engineering secured the runner-up position in the Poster Presentation Competition organized by the Science Club of KPRIET on 4th September 2024. The students presented their poster on the topic "Scientific Reasons Behind Our Dramatic Rituals," showcasing their research and understanding of the scientific basis behind cultural practices.

Rangoli Competition as a part of Vinayagar Chaturthi Celebration



As part of the Vinayagar Chaturthi celebrations, students from the Department of Chemical Engineering showcased their creativity and artistry by participating in a vibrant Rangoli Competition. The event, filled with festive spirit, saw students meticulously crafting intricate designs, symbolizing the essence of Vinayagar Chaturthi and the cultural richness of the occasion.

Student's Achievement

Events
Department

Winners of Connecting the Dots 3.0



Ms. V. S. Prashitha & Ms. G. Harshavardhini of III B.Tech. Chemical Engineering won first place in "Connecting the Dots 3.0" event organised by IEEE Madras Section Women in Engineering on 4th September 2024. Hearty Congratulations to them.

PALS (PanIIT Alumni Leadership Series) Student Leader



Hearty congratulations to Mr. R. Mugunthan of III B.Tech. Chemical Engineering on being nominated as PALS (PanIIT Alumni Leadership Series) Student Leader for KPRIET.

Student's Achievement

Events
Department

Chem Poster Winners



Ms. Aishwarya and Ms. V. Dhanusri of II B.Tech. Chemical Engineering won first prize in the event CHEM POSTER in CHEM UTSAV organized by PG and Research Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore on 10th September 2024.

Chem Jam Winners



Ms. G. Harsha Vardhini and Mr. K. Paveen Kumar of III B.Tech. Chemical Engineering has won third place in the event Chem Jam in CHEM UTSAV organized by PG and Research Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore on 10th September 2024.

Boxing Championship



Student's Achievement

Events
Department

CM Trophy winner - boxing



Ms. G. Harsha Vardhini of III B.Tech. Chemical Engineering has achieved a significant milestone by securing a Gold Medal at the CM TROPHY Regional Level Boxing Tournament. Competing under the 75+ kg weight category, Harsha Vardhini showcased her extraordinary talent and determination throughout the competition. Her victory at the regional level has earned her a well-deserved spot in the CM Trophy State Level Boxing Championship, which will take place in Chennai.

Skit Event Winners



Mr. D. A. Nithishwaran, Mr. M. Bharanidharan, Mr. S. Harshavarthaman, and Mr. Alhamith of II B.Tech. Chemical Engineering showcased their exceptional talent by winning first place in the Skit Event organized by the Sangamam Club House of KPRIET. Their engaging performance captivated the audience and judges alike, demonstrating creativity, teamwork, and excellent stage presence.

Runner-up of Pitch-Up Competition



Mr. C. Tivith and Mr. S. Rohitkumar of IV B.Tech. Chemical Engineering, along with Ms. S. Vidula and Ms. J. Harshitha of III B.Tech. Chemical Engineering, secured the runner-up position in the Pitch-Up competition organized by the Ignitron Club of KPRIET. The students impressed the judges with their innovative ideas, strong presentation skills, and team collaboration, making them standout participants in the event.

Student's Achievement

Events
Department

IEEE Richard E. Merwin Scholarship Award



Mr. Kumaran G, a IV-year Chemical Engineering student and Immediate Past Chair of IEEE KPRIET SB, has been honored with the prestigious 2024 Spring IEEE Richard E. Merwin Scholarship Award. This international recognition, granted to only 18 outstanding IEEE student volunteers worldwide, celebrates his exceptional leadership, commitment, and contributions to advancing the mission of IEEE. As a recipient of this award, Mr. Kumaran receives a scholarship of 1000 USD. His achievement brings immense pride to the institution and serves as an inspiration for his peers to excel in technical excellence, volunteerism, and professional development.

The Institute of Electrical and Electronics Engineers (IEEE) is the world's largest and most influential professional association dedicated to advancing technology for the benefit of humanity. With a global network of engineers, scientists, researchers, academicians, and students, IEEE plays a critical role in shaping the future of innovation across multiple disciplines. Founded in 1963 through the merger of the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE), IEEE has grown into a truly international organization with more than 400,000 members spread across over 160 countries. Its mission revolves around fostering technological excellence, encouraging innovation, and promoting the highest standards of professional and ethical conduct.

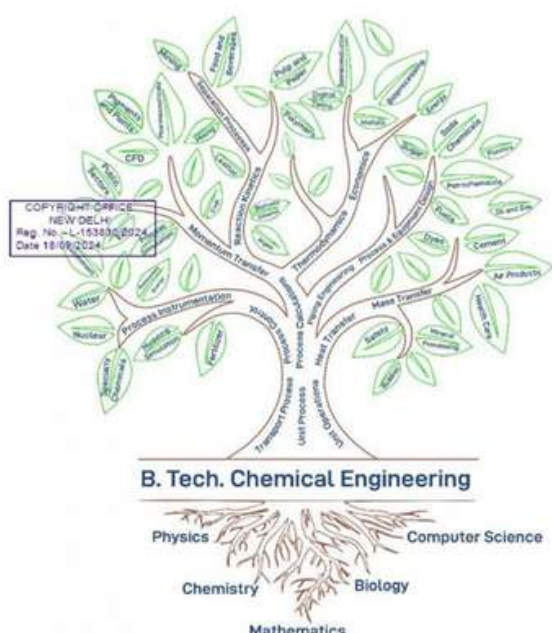
IEEE is well known for its extensive collection of research publications. The IEEE Xplore Digital Library is one of the world's largest repositories of scientific and technical literature, covering areas such as electrical engineering, electronics, computer science, and emerging interdisciplinary fields like artificial intelligence, sustainable energy, robotics, and biomedical engineering. These research contributions provide a strong foundation for academic advancements, industrial developments, and real-world technological applications.

A significant extension of IEEE is its student and young professional community. IEEE Student Branches in colleges and universities serve as platforms for students to develop leadership skills, gain hands-on experience, and work on impactful projects. Through various programs, scholarships, competitions, and volunteering opportunities, IEEE empowers students to become confident engineers, innovators, and community leaders. The Richard E. Merwin Scholarship, for example, recognizes exceptional student volunteers who demonstrate strong leadership and commitment to IEEE activities.



Copyright

Title: "Metaphoric Integration: Nurturing Chemical Engineering Education from Fundamental Sciences to Career Development"



tion: A metaphor of fundamental sciences, core and allied courses and industry career opportunities for Undergraduate Chemical Engineering Education.

Dr. M. Ramasamy, Professor, Dr. S. Balasubramanian, Professor & Head, Lt. Dr. A. K. Priya, Professor, and Mr. A. Pasupathi, Technical Assistant, have been awarded copyright for their innovative work titled "Metaphoric Integration: Nurturing Chemical Engineering Education from Fundamental Sciences to Career Development." The department congratulates the team on this prestigious achievement and looks forward to the continued impact of their work on the academic and professional growth of students.

Journal Publications

1. Elgarahy, A. M., Eloffy, M. G., Priya, A. K., Yogeshwaran, V., Elwakeel, K. Z., Yang, Z., & Lopez-Maldonado, E. A. (2024). A review on the synergistic efficacy of sonication-assisted water treatment process with special attention given to microplastics. *Chemical Engineering Research and Design*.
2. Priya, A. K., Muruganandam, M., & Suresh, S. (2024). Bio-derived carbon-based materials for sustainable environmental remediation and wastewater treatment. *Chemosphere*, 142731.
3. Elgarahy, A. M., Eloffy, M. G., Priya, A. K., Hammad, A., Zahran, M., Maged, A., & Elwakeel, K. Z. (2024). Revitalizing the Circular Economy: An Exploration of E-Waste Recycling Approaches in a Technological Epoch. *Sustainable Chemistry for the Environment*, 100124.
4. Metta, L. D. B., Nayak, C., Ramamoorthy, R., & Kumari, N. (2024, June). Novel sun flower-like ZnO nanoflower synthesized by spin coating technique and application in Perovskite Solar Cell. In *AIP Conference Proceedings* (Vol. 3122, No. 1, p. 060007). AIP Publishing LLC.

Book Chapter Publications

1. Senthilkumar, R. Sridhar, G. Surendran, C. Jayakumar (2024). Hydrotropic Solubilization: A Promising Approach for Enhancing the Solubility of Poorly Water-Soluble Drugs. *Pharmaceutical Research: Recent Advances and Trends* Vol. 5, 13 August 2024, Page 127-144.
2. Priya, A., & Sagadevan, S. (2024). Chalcogenides-Based Nanomaterials for Contaminant Removal in Wastewater Treatment. In *Structural and Chemical Features of Chalcogenides*. IntechOpen.
3. Senthilkumar, R., Sridhar, R., Surendran, G., & Jayakumar, C. (2024). Hydrotropic Solubilization: A Promising Approach for Enhancing the Solubility of Poorly Water-Soluble Drugs. *Pharmaceutical Research: Recent Advances and Trends* Vol. 5, 127-144.



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Department of Chemical Engineering



1 Issue

July - September, 2024

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