KPR Institute of Engineering and Technology

Learn Beyond (Autonomous, NAAC "A")

Avinashi Road, Arasur, Coimbatore.

Great Place To Work. Certified MAR 2022 - MAR 2023 INDIA

Department *of*
Chemical Engineering

AGGLOMERATION

NEWSLETTER

2021 - 2022

Vision and Mission
Institute

Vision

To become a premier Institute of academic excellence by imparting technical, intellectual, and professional skills to students for meeting the diverse needs of the 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. process through scholarly activities.
- Enriching research and innovative activities in collaboration with industry and institute of repute.
- Ensuring the academic process to uphold the culture, ethics and social responsibility.

Vision and Mission
Department

Vision

To produce engineers of high academic standards in all aspects of the engineering profession by providing quality education through research and innovation thereby improving their skills to compete globally.

Mission

- To provide a comprehensive learning ambience and an industry driven and dynamic academic program to train the students in basic sciences, chemical and related engineering fields and to inculcate professional ethical practices.
- To encourage principles of sustainability and stimulate the evolution of environmental friendly techniques for the benefit of the society.
- To motivate students to be professionally vibrant and versatile.
- To promote qualities of leadership and teamwork in students to become successful entrepreneurs.

Message from
Head of the Department

Dr. S. Balasubramanian
Prof. & Head, ChemE

On behalf of the Department of Chemical Engineering, KPR Institute of Engineering and Technology, Coimbatore. It gives immense pleasure in presenting the newsletter, of the Department of Chemical Engineering "Agglomeration", for the academic year 2021-2022. The entire academic year was fruitful with lot of activities in joyful teaching- learning, research and administration. The academic year was started with a one hundred percent admissions against the sanctioned strength of undergraduate B. Tech. Chemical Engineering program. Following the admissions, a week orientation program for the freshmen students was organized and subsequently classes were started. The classes for the sophomores, junior and senior students were commenced before the freshmen classes and conducted both online and offline in a hybrid mode. We had new faculty members joined with us in both odd and even semester with good academic and research background. We have successfully conducted two board of studies meeting in this academic year and introduced new academic regulation R2021 for the freshmen students. We have celebrated Engineers Day with our students. The best faculty, mentors, student achievers and supporting staff in the department were recognized and awarded in the annual day functions. The students of our department have participated in various cocurricular and extracurricular activities organized within the campus, neighboring colleges and in the premier institutes in India. Students have brought laurels to the department and the institute through their cocurricular and extracurricular activities. The department has celebrated farewell, a thanks giving day to our first batch of senior students and it was one of the most memorable moments for the department. We have successful organized technical seminars, and guest lectures with speakers from industries, premier Institutes, and research centers in the country and abroad. Faculty members have enjoyed teaching-learning and research. Our faculty members have published papers with highest impact factor of 13.61 in peer-reviewed international journals. Our faculty members have also undergone industry internships, faculty development programs and delivered lectures within the campus and outside the campus both in face-to-face and in online mode. Our students have taken internships in top process industries like Britannia, SPIC, DCW *etc*. We are delighted to announce that the first batch of our student's graduation is one hundred percent and provided on campus placement with highest salary package of 9LPA and an average of 4 LPA. We have successfully signed an MoU with one of the India's primers research centers SITRA (South Indian Textile Research Association, Coimbatore). An online international conference on sustainable water (ICSW 2022) was organized successfully with enthusiastic participation of students, scholars and faculty members from various parts of the country and abroad. Our students have also successfully organized a technical symposium, EFNOTS 2022. Department has magnificently organized Industrial visits for the students and faculty members. On the whole the entire academic year 2022 was successful and more a great memorable for the department. We thank our Principal, Chief Executive, Management, Parents, Students and our various statutory and non-statutory members of the department and the Institute for their consistent support in all our endeavors. Let us take this legacy forward to the upcoming academic year and celebrate the success of our students in all our endeavors.

- Thank you

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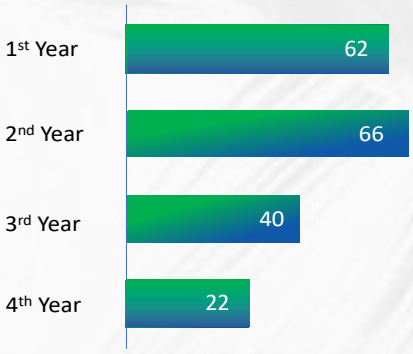

Faculty - Students Ratio 1:15

Faculty Strength 12

Faculty Areas of Expertise 12

1. Process Modeling and Simulation
2. Computational Fluid Dynamics
3. Water and Wastewater Treatment
4. Microfluidics (Lab-on-a-Chip)
5. Metallurgy and Heat Transfer
6. Bioprocessing
7. System Identification
8. Advanced Process Control
9. Industrial IoT
10. Microwave heating
11. Solar Cells Recycling
12. Perovskite Solar cells

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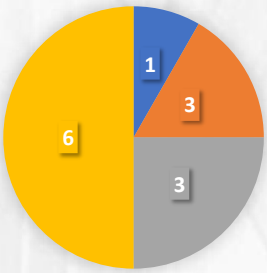
Patents

B. Tech. Chemical Engineering Engineering started in the year 2018

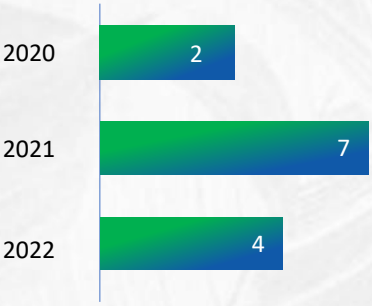
MoUs Signed 2



Faculty Cadre Distribution

- Visiting Faculty
- Professor
- Associate Professor
- Assistant Professor

Publications



Paper Publications 14

Highest Impact Factor 13.615

Average Impact Factor 4.45

Inauguration of IIChE Students Chapter

Events
Department

We are extremely delighted to inaugurate the Indian Institute of Chemical Engineers (IIChE) students chapter online in the campus in presence of Mr. S. Ramachandran Chief Executive officer of M/s. Kavin Engineering and Services Private Limited , Coimbatore. The inauguration ceremony was organized online in the campus on 06.01.2022. The students office bears were also presented in the ceremony. Mr. S. Ramachandran has shared his experience and the importance of Chemical Engineering for the betterment of human kind.

Online inauguration of IIChE students chapter in the campus.
Mr. S. Ramachandran, Chief Executive officer, M/s. Kavin Engineering Coimbatore, was the chief guest in the inauguration ceremony.

Dr. S. Balasubramanian, Prof. & Head, ChemE, Dr. S. Ramachandran, Prof. ChemE, and Prof. M. Ramasamy, ChemE from left right were also presented in the inaugural session.

Inauguration of IIChE Students Chapter

Events
Department

IIChE students chapter Inauguration in media

HINDU 6.1.22

COIMBATORE TODAY

RELIGION

Thiruvenkatavan Charitable Society, Sri Venugopala Perumal and Sri Kalyana Venkatesa Perumal Temple: Thirukarthigai and Markazhi Mahotsavam, chanting of Thiruppavai, Kovaipudur temple, 5.20 a.m. onwards.

GENERAL

Gajananda Trust and Coimbatore City Police: Launch of helpline numbers of Vazham - Women and Children counselling, Pradeep Kumar, Commissioner of Police and P.K. Arumugam - Managing Trustee of

Home Delivered, palliative care for services for persons with disabilities, Raja Gopal Sunkara, Corporation Commissioner, chief guest, Sowkya Pain Rehab Clinic, No 21, Government School near Puliakulam Road, 10 a.m.

KPR College of Arts, Science and Research: School of Management organises a campus connect, 10.30 a.m.

KPR Institute of Engineering and Technology: Inauguration of the student chapter of Indian Institute of Chemical Engineers, 10 a.m.

TIRUPPUR

Dr. Hira Lal Roy, was the founding father of the Indian Institute of Chemical Engineers (IIChE), a great visionary and pioneer of Chemical Engineering education in India. 30 people made a humble start in a room at Jadavpur University in Kolkata with limited funding and minimal infrastructure. With almost 29,000 members as of today, IIChE has established itself as the premier organisation for Chemical Engineering professionals in India. The Indian Institute of Chemical Engineers (IIChE) headquartered in the Jadavpur University, Kolkata. Presently, IIChE has 42 regional centers along with 172 student chapters across India. The membership in IIChE comprises of various professionals from academics, students, process or chemical industries, and researchers.

Student Chapters operate under the direction of the nearby Regional Centers. The Student Chapters regularly conduct career counselling, seminars, lectures, short courses, visit to industries, value added courses, short term courses, workshops and so on. Since 2005, IIChE has hosted SCHEMCON (Student's CHEMCON) yearly to inspire today's chemical engineers to develop original and creative solutions. The Institute bestows a sizable number of honours and prizes each year to recognise excellence and foster the abilities of young people. As a member of the Institute, we have various possibilities to interact with illustrious academics and seasoned experts.

The Institute continues to have close ties to several fraternal professional organizations both domestically and overseas. Following globalization, IIChE has launched a number of initiatives to expand its network of inter-disciplinary forums and raise its profile among the global Chemical Engineering community. Both seasoned professionals with a wealth of expertise and aspiring chemical engineers are welcomed into the IIChE family. Even just becoming a member of the Institute is a success that will benefit one's future career. With newer fields joining it and new ideas arising, the field of chemical engineering is rapidly expanding.

Engineers Day Celebration

Events
Department

Every year on September 15, Engineers Day is observed across the country to commemorate Sir Mokshagundam Visvesvaraya's birthday. He has made important contributions to the fields of engineering and education. On September 22, 2021, we celebrated Engineers Day on behalf of the Department of Chemical Engineering.

Dr. S. Balasubramanian, Prof. & Head, Department of ChemE and Prof. S. Ramachandran of ChemE presented an inspirational talk on the innovation in chemical engineering and roles and responsibilities of engineers in process industries

Engineers Day Celebration

Events
Department

The session started with invocation, our Tamizhthaai Vaazhthu. The welcome address was given by Dr. S. Karunakaran, Associate Head and Associate Professor, Department of Chemical Engineering. He gave a short speech to inspire the students. The HoD's talk was given by Dr. S. Balasubramanian, Professor and Head, Department of Chemical Engineering. He inspired the students by giving a lecture about why Engineers Day is observed, Innovation in chemical engineering and his remarks were particularly important for buddy engineers. The students and faculty members were enthused by Dr. S. Ramachandran's motivational speech. He gave a fascinating speech titled "Competency Model for Engineers." He discussed engineering's effect, the competence model, core competencies, workplace competencies, industry-wide technical competencies, and engineering outcomes. Our budding engineers were recognized for their excellence in a range of academic, co-curricular, and extra-curricular activities. Members of the faculty and staff were also recognized for their achievements. The vote of thanks was given by Dr. Nitu Kumari.

International Virtual Conference on Sustainable Water 2022

Events
Department

International Virtual Conference on Sustainable Water 2022

Events
Department

Chief Patron
Dr. K. P. Ramasamy
Chairman, KPRIET

Patrons
Dr. M. Akila
Principal, KPRIET

Dr. A. M. Natarajan
Chief Executive, KPRIET

Organizing Committee
Chairman
Dr. S. Balasubramanian
Prof. & Head Dept. of ChemE, KPRIET

Members
Dr. S. Ramachandran
Prof. Dept. of ChemE, Director, CIIED, KPRIET
Dr. S. Karunakaran
Asso. Prof. Dept. of ChemE, KPRIET
Dr. G. Surendran
Asso. Prof. Dept. of ChemE, KPRIET
Dr. E. Nakkeeran
Asso. Prof. Dept. of ChemE, KPRIET
Dr. Lineesh Punathil
Asst. Prof. Dept. of ChemE, KPRIET
Mr. K. Murugesan
Asst. Prof. Dept. of ChemE, KPRIET
Mr. N. Arun Kumar
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Dr. Nitu Kumari
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Dr. A. Sowmya
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Dr. R. Bharathi Ganesan
Asst. Prof. Dept. of ChemE, KPRIET
Ms. Shivi Yadav
Asst. Prof. Dept. of ChemE, KPRIET
Mr. Amit Kumar Mishra
Asst. Prof. Dept. of ChemE, KPRIET
Dr. M. S. Karthikeyan
Prof. & HoD, Dept. of Chemistry, KPRIET
Dr. P. Anilkumar
Prof. Dept. of Chemistry, KPRIET
Dr. T. Daniel Thangadurai
Prof. Dept. of Chemistry, KPRIET
Dr. M. Vinolia Thamilarasi
Asst. Prof. Dept. of Chemistry, KPRIET
Dr. R. Saravanan
Asso. Prof. Dept. of Chemistry, KPRIET
Dr. D. Sudha
Asst. Prof. Dept. of Chemistry, KPRIET
Dr. S. Pratheep Kumar
Asst. Prof. CFRD, KPRIET
Dr. Triveni Rajashekhar Mandlimath
Asst. Prof. CFRD, KPRIET
Ms. R. Jagadeeswari
Asst. Prof. Dept. of Chemistry, KPRIET

Advisory Committee
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Visiting Prof. Dept. of ChemE, KPRIET
Dr. T. Kannadasan
Visiting Prof. Dept. of ChemE, KPRIET
Dr. N. Anantharaman
Visiting Prof. Dept. of ChemE, NIT, Trichy
Dr. G. Arthanareeswaran
Prof. Dept. of ChemE, NIT, Trichy
Dr. Purnima Jalihal
Scientist, NIOT, Chennai
Dr. P. Thangaraj
Director, CFRD, KPRIET
Dr. S. Ravishankar
Asso. Prof. MechE, KPRIET
Dr. Ashish Kapoor
Asso. Prof. & Head, Dept. of ChemE, SRM IST, Kattankulathur
Dr. B. Neppolian
Prof. and Dean, SRM Research Institute, SRM IST, Kattankulathur
Dr. L. Muruganandham
Dean, School of ChemE, VIT, Vellore
Dr. R. Anandalakshmi
Asso. Prof. Dept. of ChemE, IIT Guwahati
Dr. Selvaraju Narayanasamy
Asso. Prof. Dept. of Biosci & Bioengg., IIT Guwahati
Dr. Murali Rangarajan
Prof. Dept. of ChemE, Amrita Vishwa Vidyapeetham, Coimbatore
Dr. A. Senthil Kumar
Asst. Prof. Dept. of ChemE and Env. Engg., Univ. of Nottingham, Malaysia
Dr. Yong Ill Lee
Prof. Changwon National University, Korea
Dr. Keiji Nagai
Prof. Tokyo Institute of Technology, Japan

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Dr. G. Surendran +91-9049629578
Conference Coordinators - ICSW 2022
sustainablewater@kpriet.ac.in

Students Committee
Mr. G. Muralidhaaran
Mr. A. Amal Kumar
Mr. B. Kumaresan
Mr. K. Sriram
Mr. S. Atharsh
Mr. S. Mohammed Rizal
Mr. V. S. Akshay Krudhi
Mr. K. Ramkumar
Mr. J. Deepak
Mr. S. Giridharan
Ms. M. Gokila
Ms. S. B. Harine
Ms. J. Varsha

International Virtual Conference on Sustainable Water 2022

Events
Department

Conference Topics

Broad outline of areas covered in the conference include:

- Advanced water and waste water treatment methods
- Computational fluid dynamics
- Desalination
- Drinking water treatment and distribution
- Ground water
- Hydraulics
- Hydrology
- Low-cost technologies
- Membrane technologies
- Novel materials in water processing
- Nutrient removal and recovery
- Optimization of water use
- Process intensification
- Process modelling and simulation
- Public health and sanitation
- Smart systems
- Solid - sludge management from water treatment
- Sustainable water treatment
- Water and waste water treatment methods
- System analysis and machine learning
- Water conservation
- Water distribution systems
- Water management, water pricing and economics
- Water stress and water security
- Water law, conflicts and governance

Papers related to water but not in the above - mention topics are also welcome.

Registration Fees

Participants Category	Indian Participants (₹)	International Participants ($)
Students (UG / PG)	500	30
Research scholars / Faculty members	750	50
Industry Professionals	1000	60

Registration link

https://bit.ly/3GMzYc2

Payment Details

Account Name : KPR Institute of Engineering and Technology
Bank : Federal Bank
Account No : 10920200043757
IFSC Code : FDRL0001092
Branch Name : Coimbatore
Account Type : Current Account
Address : No. 21, Variety Hall Road, Town Hall, Coimbatore

Submission of Abstracts

Abstracts not exceeding 400 words in English should be submitted online. Abstracts should include title, name of the author(s) and corresponding author, Institute affiliation and keywords (max. 5) typeset in Microsoft Word (A4 size). The font size shall be 12 and Times New Roman shall be the font face. On acceptance of the abstract by the conference committee, the full-lengthl manuscript (max. 6 pages) should be communicated as per the template provided in the registration link. It is mandatory that one of the author(s) should be registered in the conference and be present during the time of presentation. The presentation schedule will be communicated to the authors on or before 20/03/2022. The topics/themes for call for paper is to be mentioned clearly in the abstract. Author(s) can also refer the attached abstract template for online submission in the registration link.

Organizing committee reserves all the rights towards the final decisions in the matters that are related to conference.

Publications

Selected good-quality articles will be considered for the possible publications in peer-reviewed SCI/Scopus indexed journals as per the decisions of the editorial board of the journal. The status of publications will be updated to the author(s) from time-to-time.

Important Dates

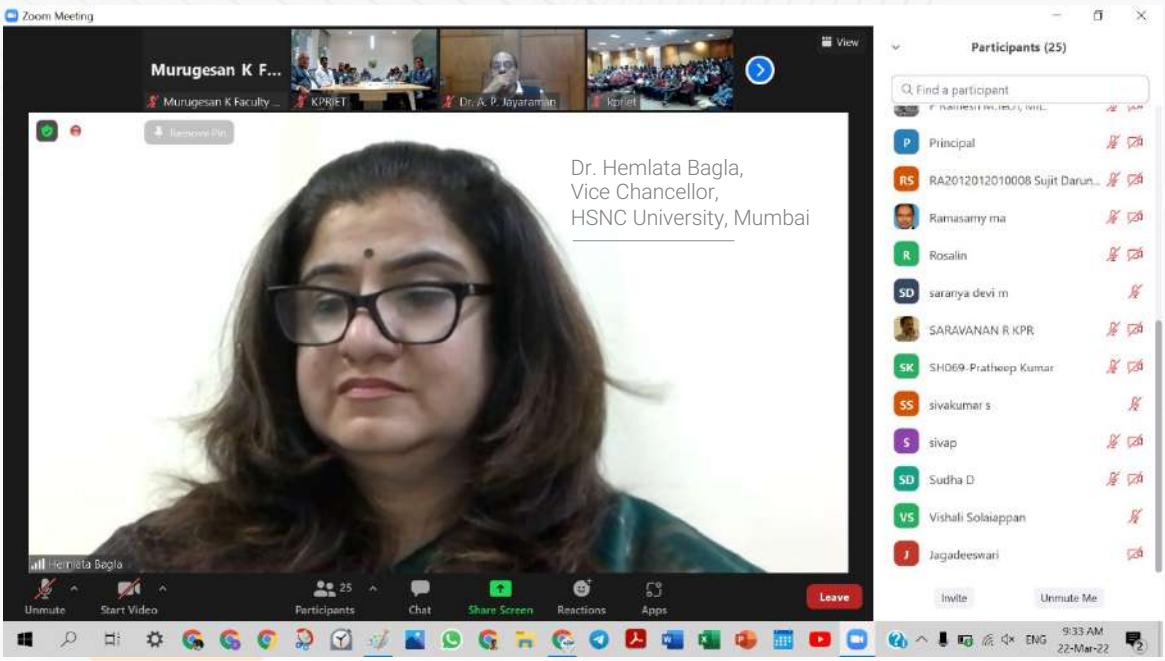
Abstract Submission Extended	14/03/2022
Accept/Decline of Abstract onwards	09/03/2022
Submission of Full Manuscript	12/03/2022
Pre-recorded Videos of Final Presentation	15/03/2022
Registration	18/03/2022
Conference	22 - 23/03/2022

International Virtual Conference on Sustainable Water 2022 – Day 1

Events
Department

Department of Chemical Engineering has organized 1st International Conference on Sustainable Water 2022 in virtual mode on 22nd & 23rd of March 2022. The event witnessed keynote addresses of eminent personalities from the premier global universities. There were totally four keynote addresses and 6 technical sessions conducted. A total of 31 papers were presented virtually from various colleges and research institutions across India and globe. Research articles were presented based on the theme related to water. Solutions through Innovative methods and technology for the problems associated with water were presented through the forum.

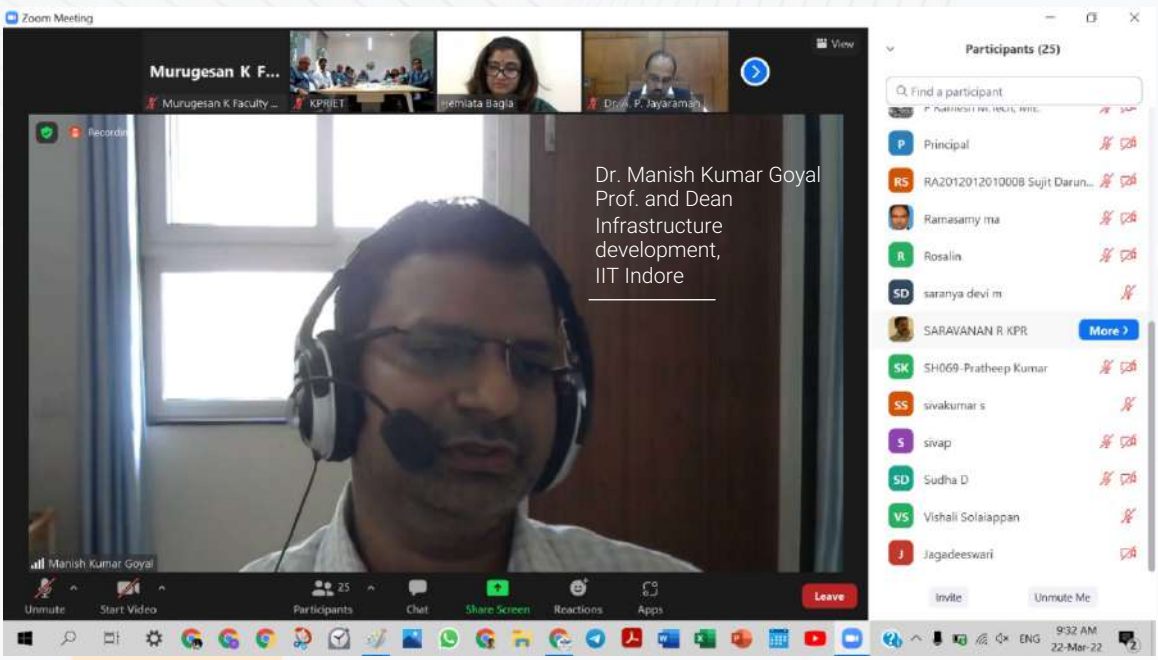
International Conference ICSW 2022 Inauguration



International Virtual Conference on Sustainable Water 2022 – Day 1

Events
Department

On 23.03.2022, a fine morning, the conference was started with the invocation. Welcome address was given by Dr. S. Balasubramanian, Prof. and Head, Department of Chemical Engineering., KPRIET. Presidential address was delivered by Dr. M. Akila, Principal, KPRIET and felicitation by Dr. G. Anusha, Prof. and Head, Department of Civil Engineering, KPRIET. Conference Proceedings was released by Dr. M. Akila and our Chief Guest Dr. Hemlata Bagla, Vice Chancellor, HSNC University, Mumbai. Our Guest of Honour of the day was Dr. Manish Kumar Goyal, Prof. and Dean, Infrastructure development, IIT Indore. Inaugural function was ended with Vote of Thanks.

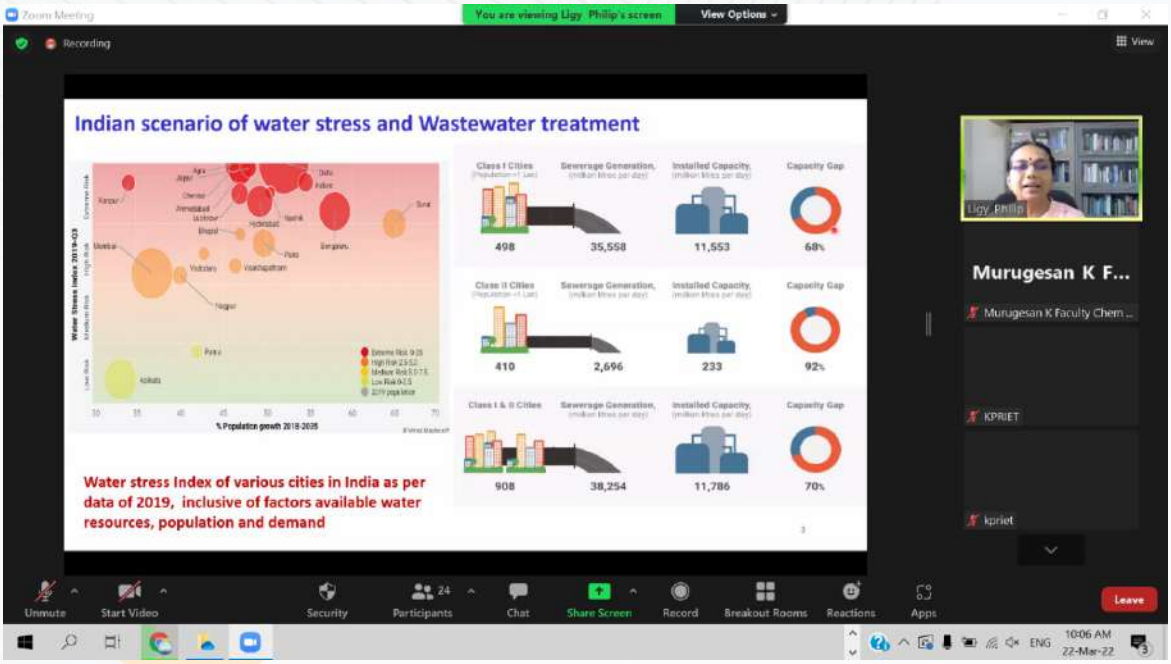


International Virtual Conference on Sustainable Water 2022 – Day 1

Events Department

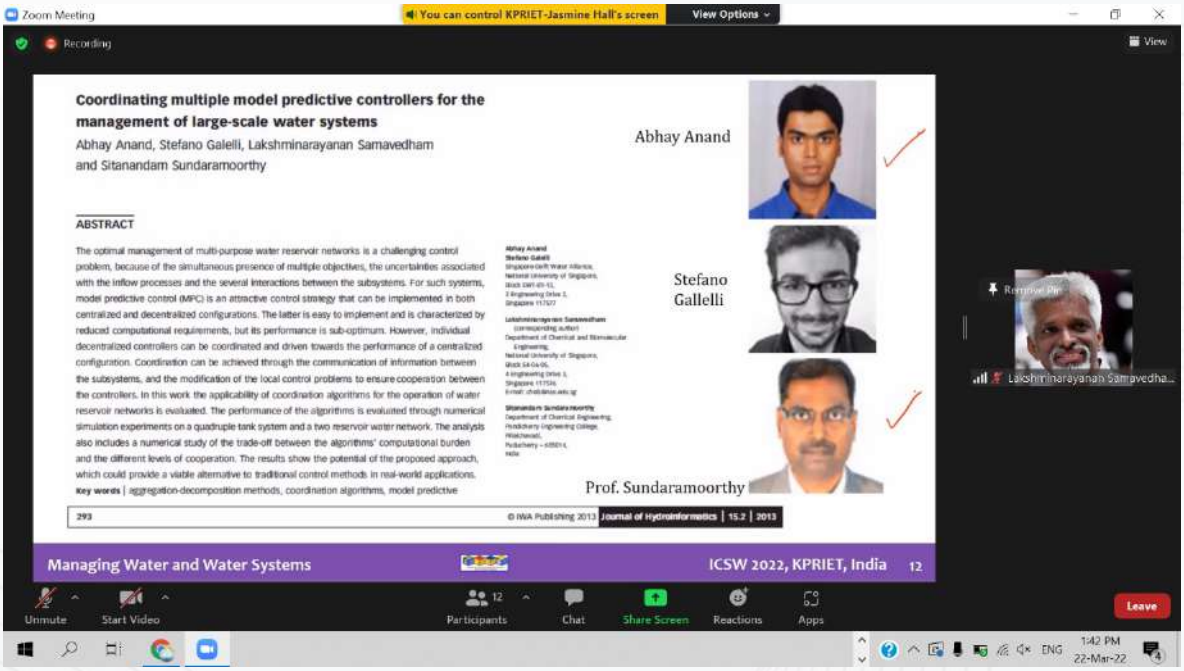
Keynote Speaker 1
Prof. Ligy Philip
Department of Civil Engineering, IIT Madras, India.

After inauguration, keynote address was given by Prof. Ligy Philip, IIT Madras. She addressed the concept of wastewater treatment. She well explained about the Indian scenario of wastewater treatment. She also described the treatment methods and the projects carried over at IIT Madras in the department of Civil Engineering. It was a very useful session for the undergraduate students, research scholars, faculty members those who are involved in the area of water treatment research.



International Virtual Conference on Sustainable Water 2022 – Day 1

Events Department

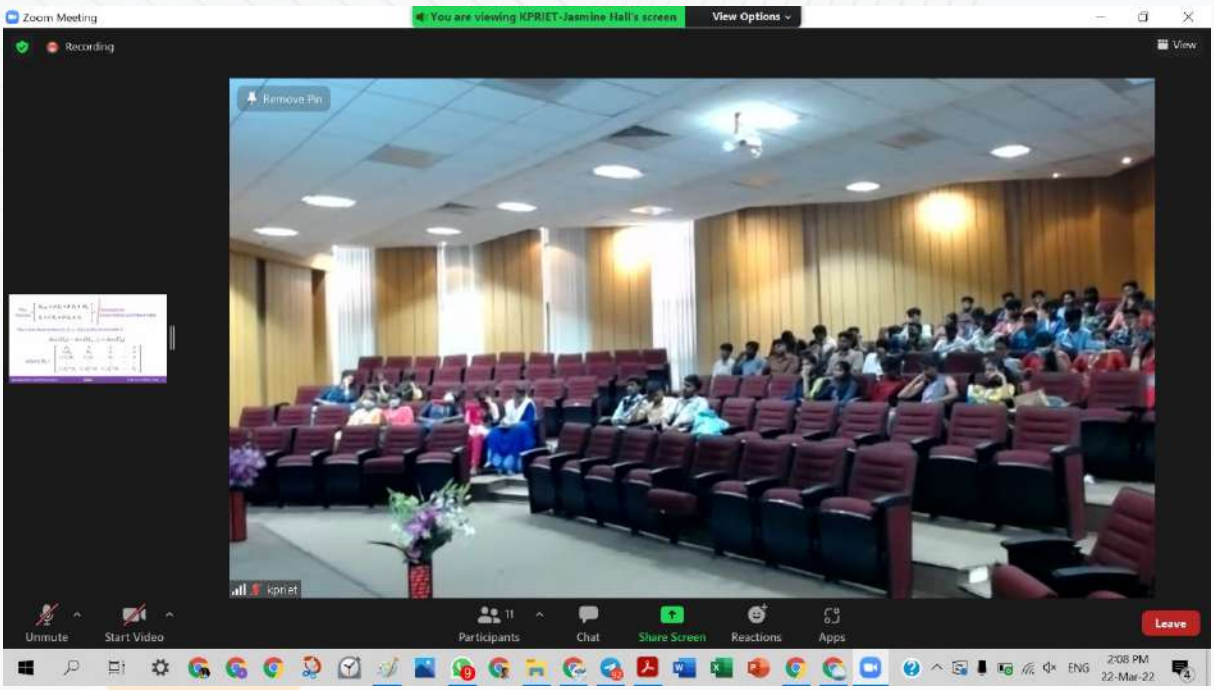


Keynote Speaker 2

Prof. Lakshminarayanan Samavedham

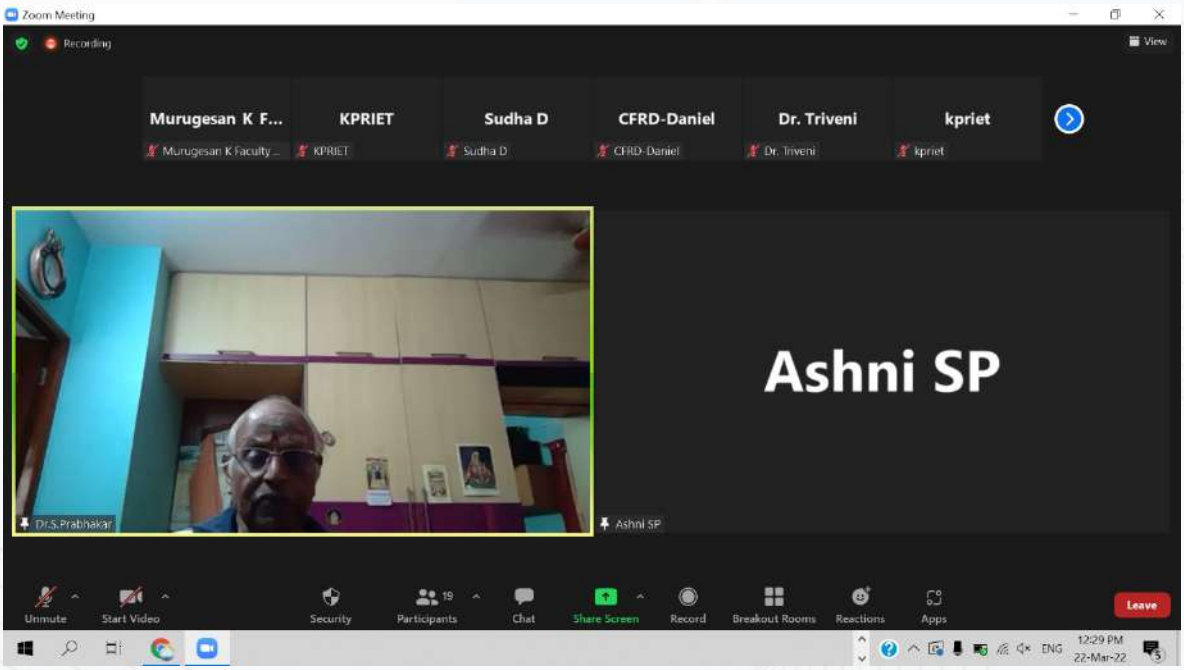
Chemical and Biomolecular Engineering, National University of Singapore, Singapore.

Prof. Lakshminarayanan, he has delivered a nice lecture as a keynote speaker on this day, second half. He talked about water management. Faculty, Students and research scholars interacted well with our keynote speaker. Here some memorable moments as pictures are given below.

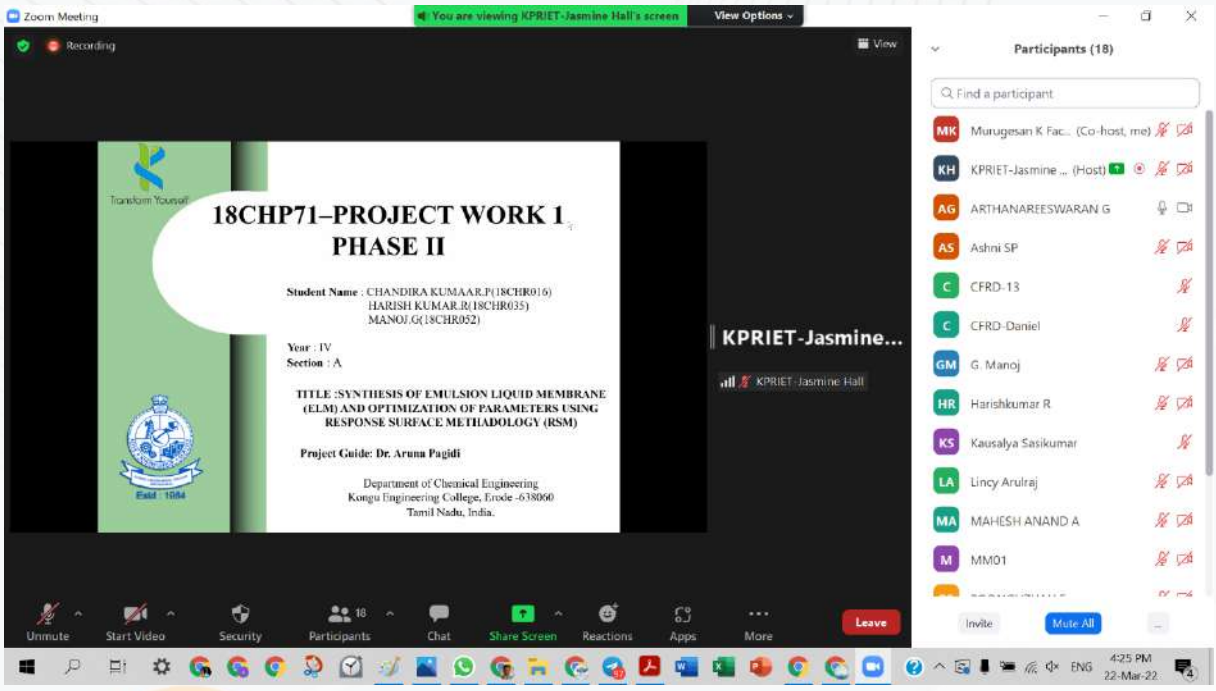


International Virtual Conference on Sustainable Water 2022 – Day 1

Events
Department



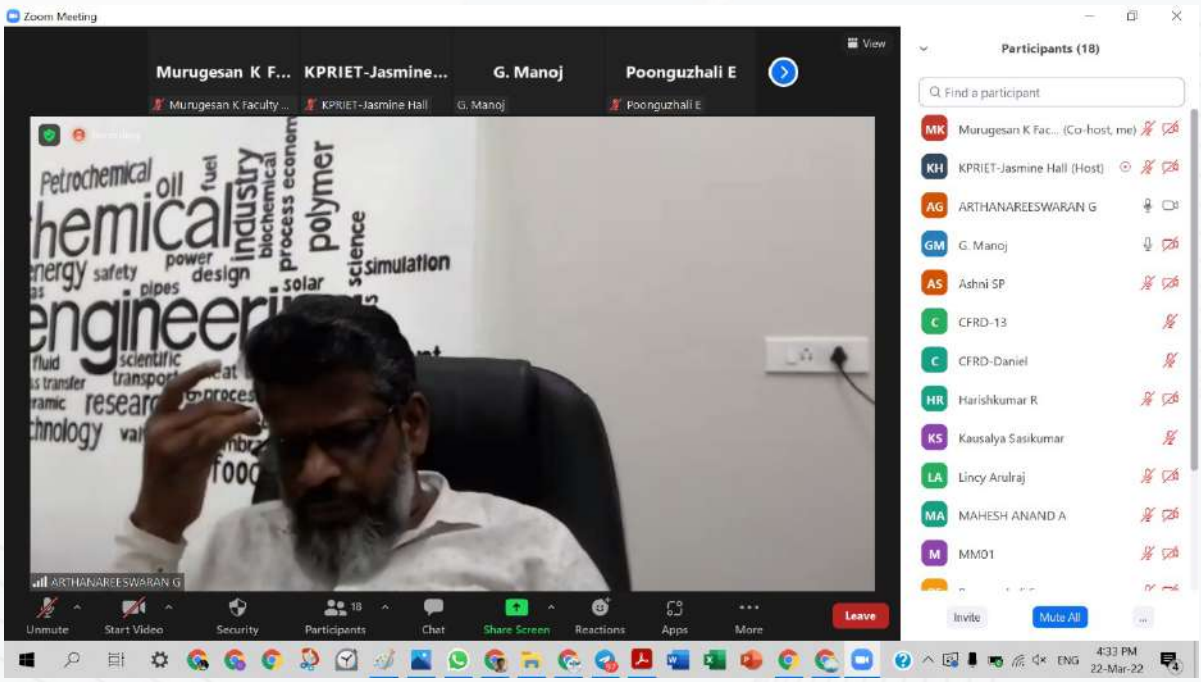
Advanced Water and Waste Water Treatment Session
Chairperson: Dr. S. Prabhakar, Retd. Scientist BARC, Visiting Professor, SRM Institute of Science and Technology, Kattankulathur



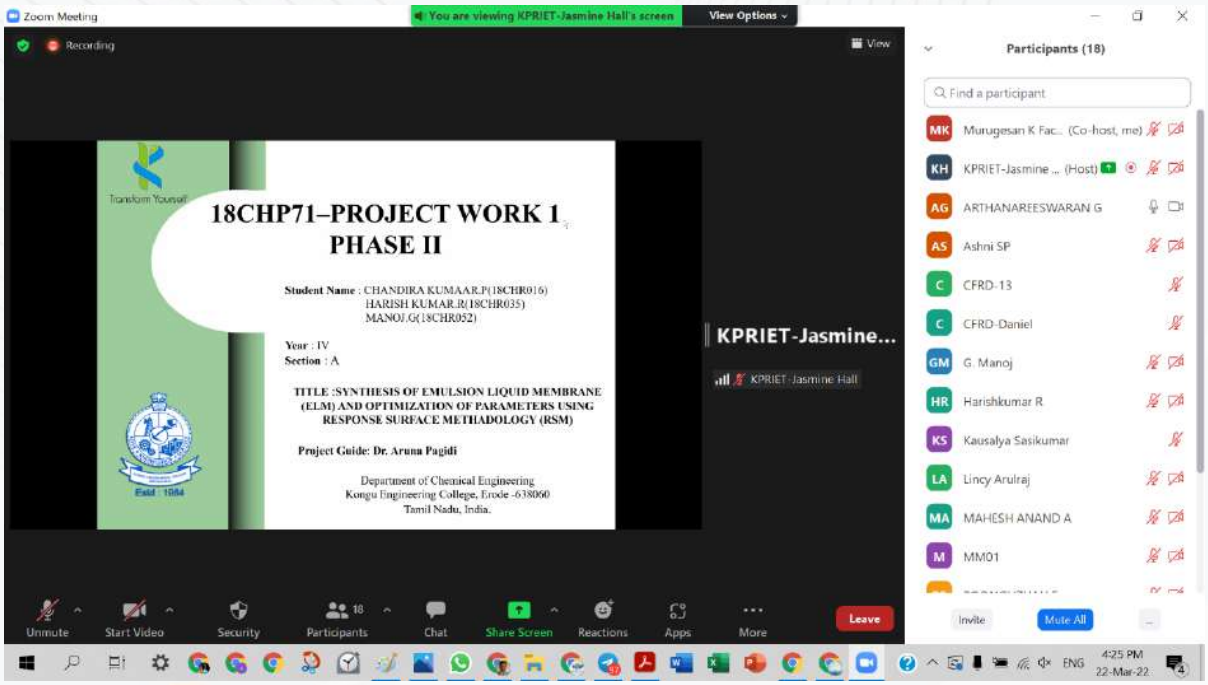
Students watching the online presentation in the gallery view mode

International Virtual Conference on Sustainable Water 2022 – Day 1

Events
Department



Low-Cost Technologies Session
Chairperson: Dr. G. Arthanareeswaran, Professor, Dept. of ChemE, NIT Trichy.

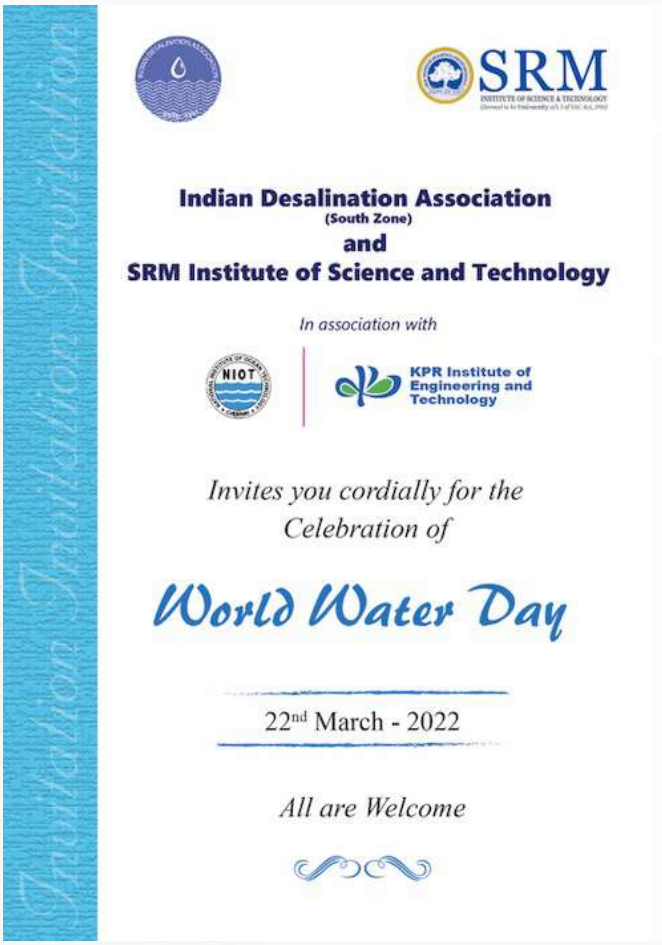


Students watching the online presentation in the gallery View mode

World Water Celebration along with International Virtual Conference on Sustainable Water 2022 – Day 1

Events
Department

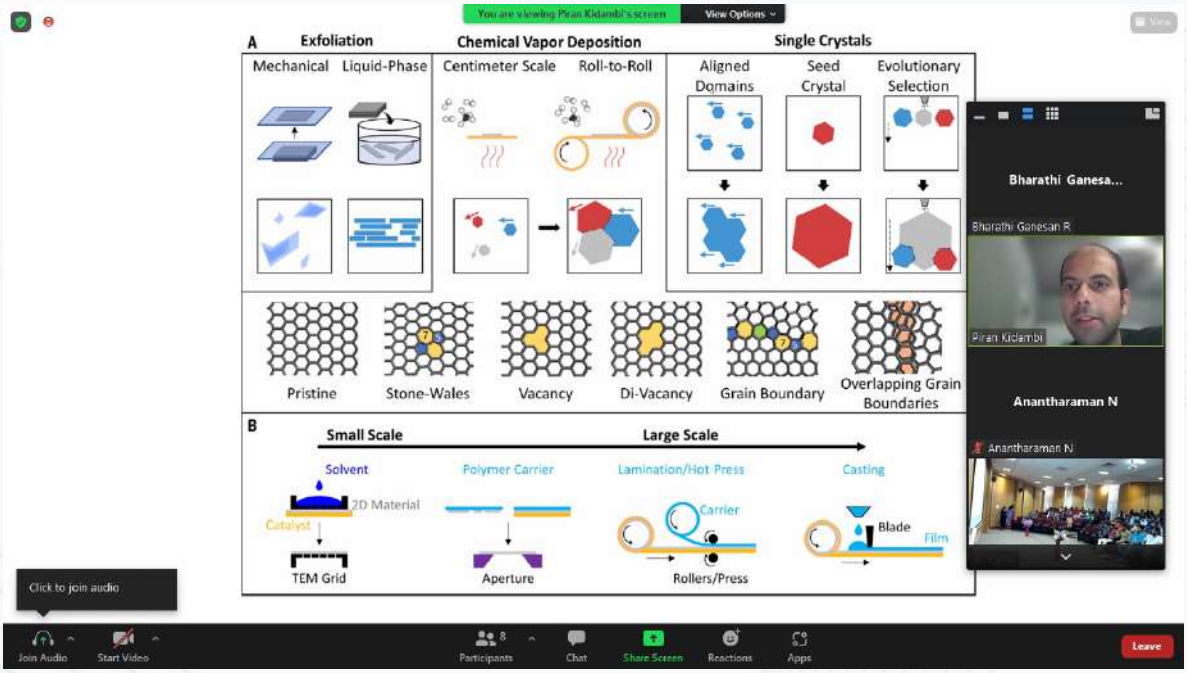
Department of Chemical Engineering has celebrated world water day 2022 in association with NIOT (National Institute of Ocean Technology, Chennai) and Department of Chemical Engineering, SRM IST.



World Water Day 2022

International Virtual Conference on Sustainable Water 2022 – Day 2

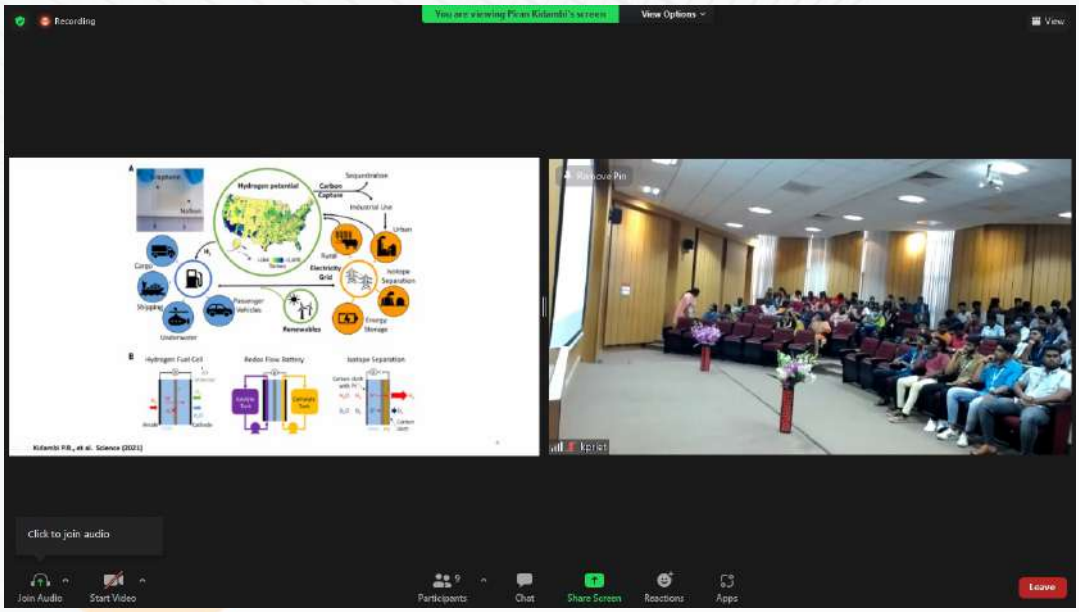
Events
Department



Keynote speaker 3

Prof. Piran Kidambi
Chemical and Biomolecular Engineering, Vanderbilt University, Nashville,
United States of America.

Prof. Piran Kidambi presented the advanced concepts of Nanotechnology. It is well known that Nanotechnology is one of the well growing advanced technologies. Our speaker explained the concepts related to our theme sustainable water. Faculty, students and research scholars well interacted with the resource person. Here we have some snapshots of the session.

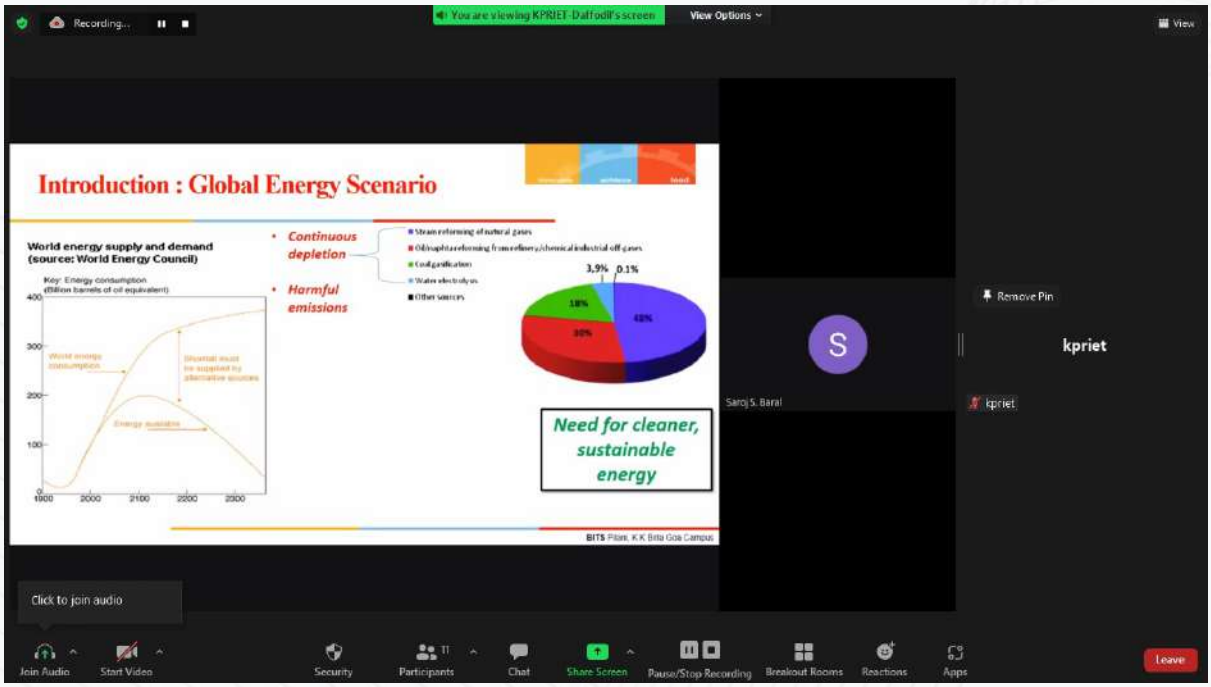


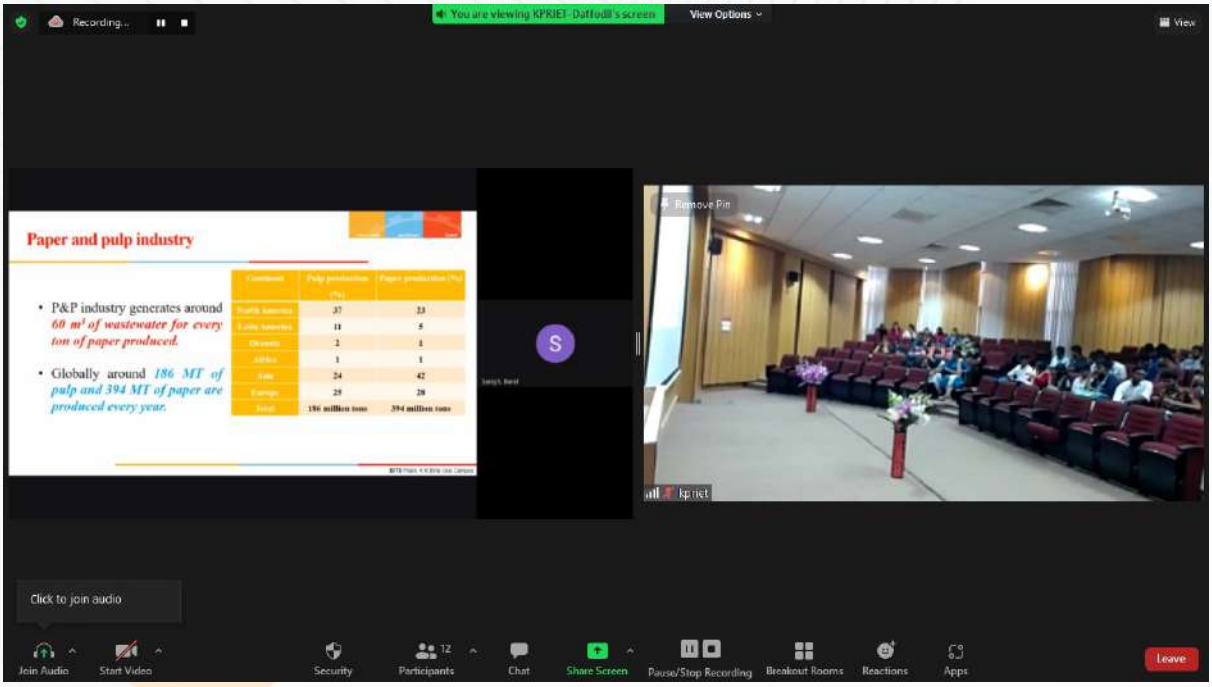
International Virtual Conference on Sustainable Water 2022 – Day 2

Keynote Speaker 4

Prof. Saroj S. Baral
HoD, Department of Chemical Engineering,
BITS Pilani, Goa campus.

Prof. Saroj, our keynote speaker, talked about sustainable energy. He well explained about global energy scenario. He also presented about the energy and water treatment nexus in pulp and paper industry. Here we have some memorable pictures.

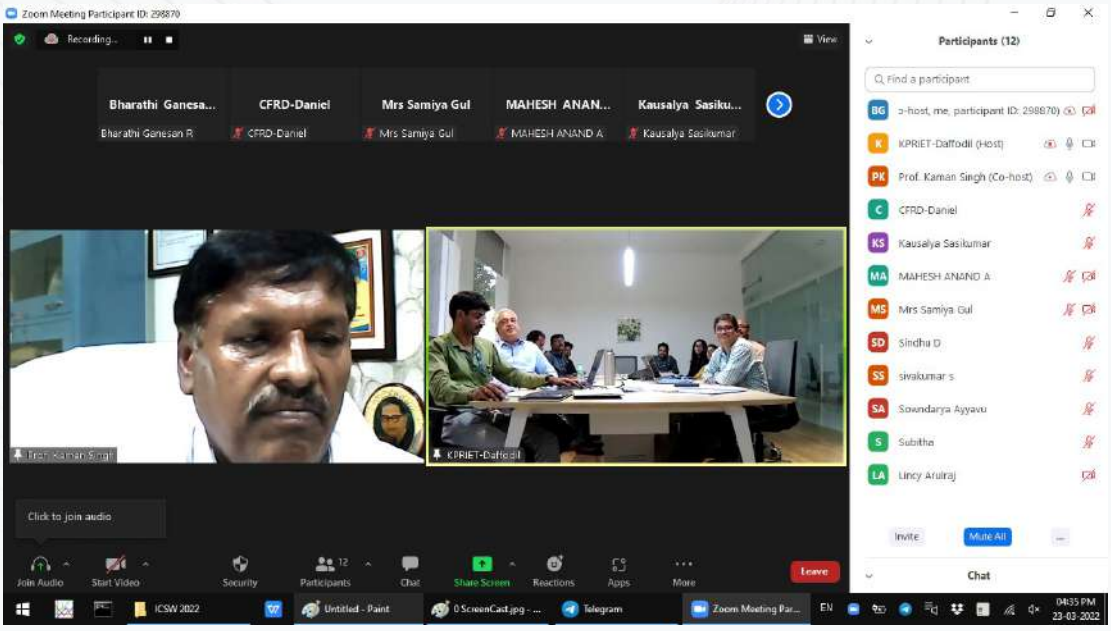




International Virtual Conference on Sustainable Water 2022 – Day 2

Events Department

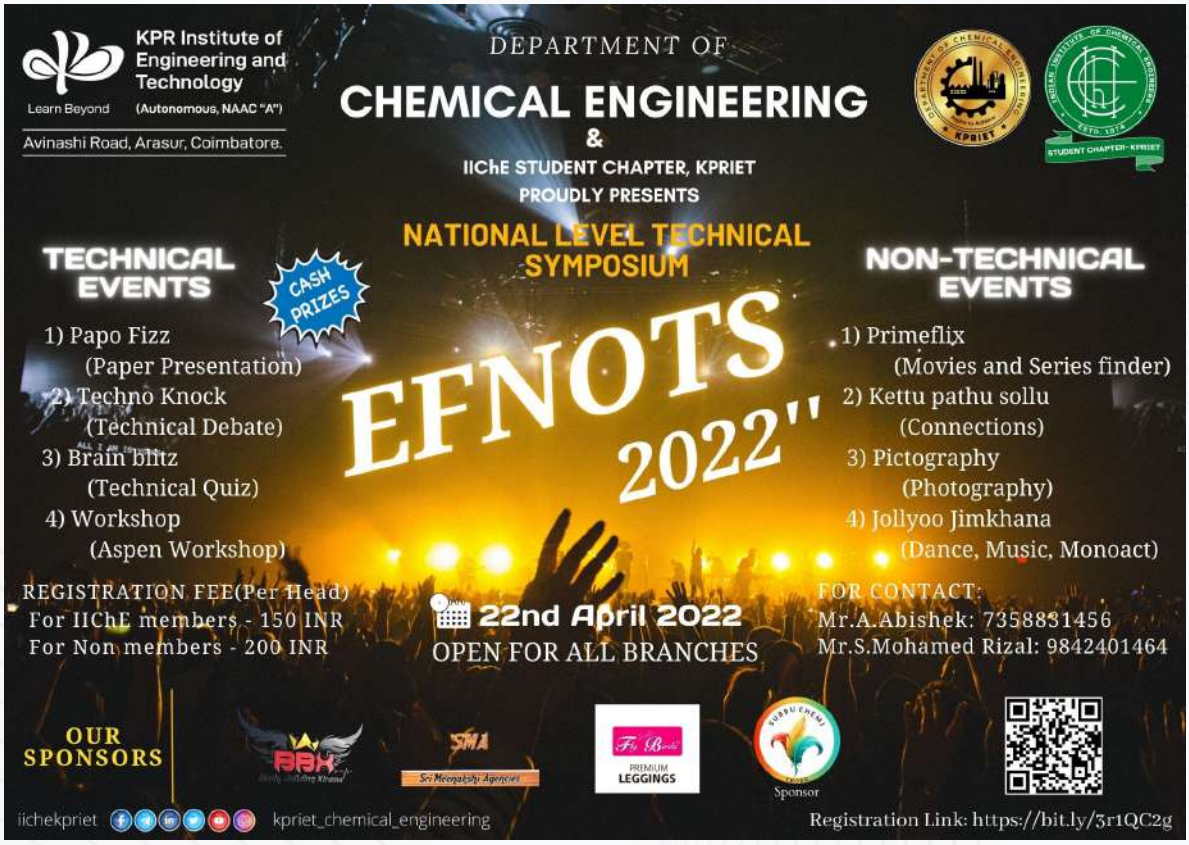
Some of the snapshots of online presentations in ICSW 2022



The conference was ended successfully with valedictory function. We had our chief guest from NEERI, India, Prof. Kaman Singh. He took much time in the evening to finish our conference well and good. We had a wonderful session with him.

Students Symposium
EFNOTS 2022

Events
Department



Inaugural session of EFNOTS 2022 Students technical symposium in veena hall. Left to right, Dr. M. Akila, Principal, Dr. S. Balasubramanian, Prof. & Head, Prof. Chidambaram, Prof. S. Ramachandran, and Prof.M. Ramasamy on Dias

Students Symposium
EFNOTS 2022

Events
Department

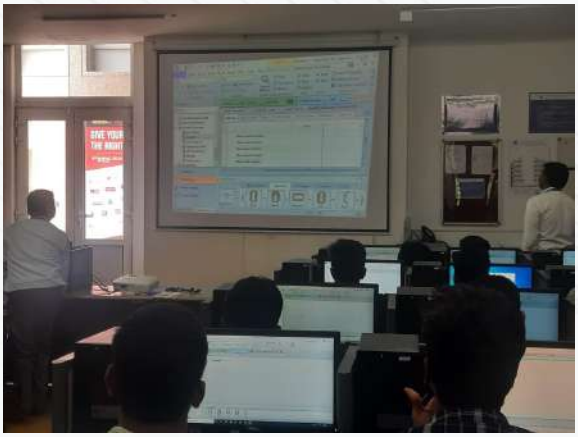
Lighting of Ceremonial Lamp during the inauguration of EFNOTS 2022 in Veena Hall

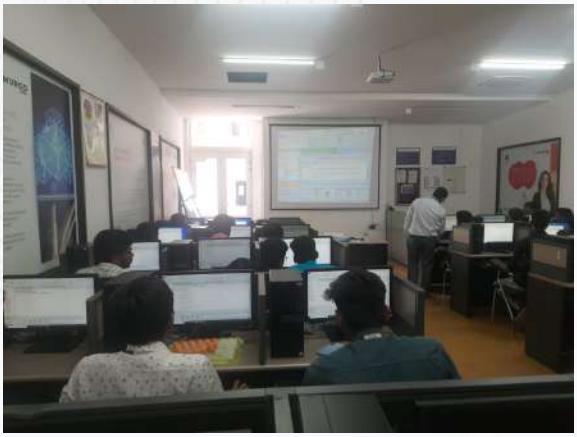
Felicitation of Professor Chidambaram, former Director NIT Trichy, Head, ChemE, IITM and presently visiting Professor Kongu Engineering College, Erode

Students Symposium
EFNOTS 2022

Events
Department

Professor Chidambaram delivering a talk on Process Modeling and Simulation in Chemical Engineering. The Students from various college listening to his talk in the gallery of Veena Hall.





Students at a workshop session, on the basics of ASPEN Plus organized as a part of EFNOTS 2022.

Technical Talks and Workshops
EFNOTS 2022

Students Symposium
EFNOTS 2022

Events
Department

Students participation and active involvement in EFNOTS 2022

Technical Talks and Workshops
EFNOTS 2022

Farewell to our 2022 Batch Of B.Tech. ChemE's

Events
Department

Farewell day was celebrated for our first batch of students with loft of fun filled events organized by the junior students to seniors 06.04.2022. Students and faculty share their memories. Several events were conducted by the students. As a part of the event cake cutting and gift distribution to the outgoing students were taken place. It was really a memorable day for the students, faculty members and staffs of our department

Farewell
2022 Batch

Farewell to our 2022 Batch Of B.Tech. ChemE's

Events
Department

Our Madam Principal in the middle, and faculty members along with our first batch (2018-2022) of 22 students in the Farewell.

Students watching the online presentation in the gallery of Vennela hall

Memorandum of Understanding (MoU)

Events
Department

Dr. M. Akila, Principal exchanging the MoU with Dr. Prakash Vardevan, Director of SITRA (South Indian Textile Research Association), Coimbatore

We are extremely delighted to announce that the Department of Chemical Engineering has signed an MoU with SITRA, (South India Textile Research Association, Coimbatore) one of our country's most well-known and well-recognized textile organizations. A special thanks to our Madam Principal, management and team SITRA. We would also like to thank our students and faculty members.

TRINITY MIRROR
12.06.2022 Page No.6

KPRIET signs pact with SITRA

Coimbatore, June 12: In a bid to help students and faculties to undergo training, internships and to get hands on experience, the Department of Chemical Engineering, KPR Institute of Engineering and Technology located on the outskirts of Coimbatore city signed a Memorandum of Understanding (MoU) with the South India Textile Research Association (SITRA), a premier research organization in Coimbatore.

Dr. M. Akila, Principal, KPRIET exchanged the MoU with Dr. Prakash Vasudevan, Director of SITRA on the occasion. R Indrajith, Head, Business Development, SITRA, S. Gopalakrishnan, Technical Associate, SITRA, Dr. S. Balasubramanian, Head, Chemical Engineering Department, Dr. R. Kiruba Shankar, Head Industry Institute Partnership Cell, Dr. S. Karunakaran, Associate Professor, Dr. E. Nakkeeran, Associate Professor, KPRIET were also present during the event.

தினமலர்
15.06.2022 பக்கம் கோவை-4

கே.பி.ஆர்., கல்லூரியில் புரிந்துணர்வு ஒப்பந்தம்

கல்வி செய்திகள்

கே.பி.ஆர்., பொறியியல் மற்றும் தொழில்நுட்ப கல்லூரி மற்றும் தென் னிந்திய ஜவுளி ஆராய்ச்சி நிறுவனம் இடையே, புரிந்துணர்வு ஒப்பந்தம் கையெழுத்தானது.

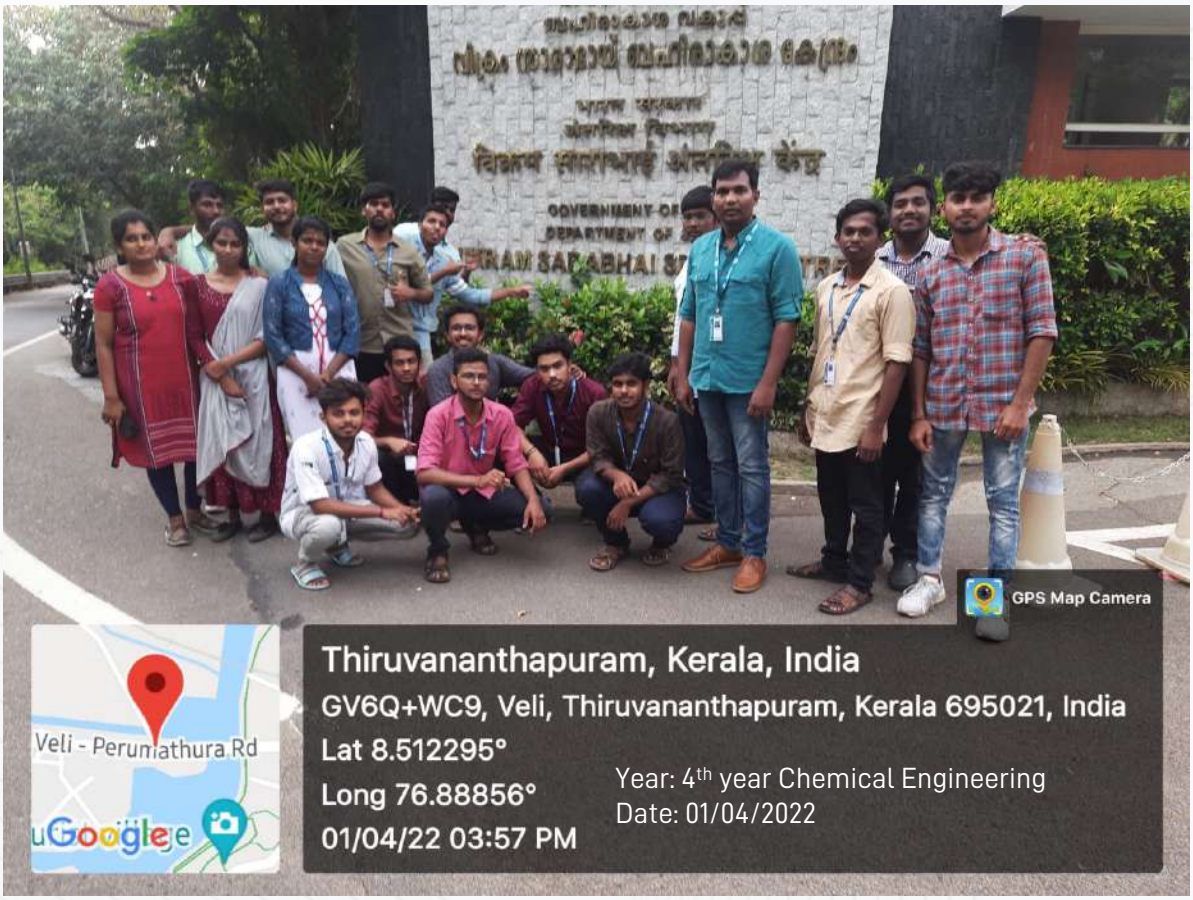
கே.பி.ஆர்., பொறியியல் கல்லூரியின் சார்பில் முதல்வர் அகிலா, தென் இந்திய ஜவுளி ஆராய்ச்சி நிறுவனத்தின் சார்பில் இயக்கு னர் பிரகாஷ் வாசுதேவன் கையெழுத்திட்டனர்.

இந்த ஒப்பந்தம், கே.பி.ஆர்., கல்லூரி மாண வர்கள், பேராசிரியர்கள் நேரடியாக பயிற்சி பெறவும், ஆராய்ச்சி ஆய்வக வசதியை பயன் படுத்த உதவியாகவும் இருக்கும். தென் இந்திய ஜவுளி ஆராய்ச்சி நிறுவனத்தின் வர்த்தக வளர்ச்சி பிரிவு துணை தலைவர் இந்திரஜித், கல்லூரியின் வேதிப்பொறியியல் துறை தலைவர் பாலசுப்ரம னியன் உடனிருந்தனர்.

Left to right: Dr. S. Karunakaran, Dr. R. Kirubha Shankar, Mr. Gopalakrishnan (Technical Associate), Mr. R. Indrajith (Head -Business Development), Dr. S. Balasubramanian, and Dr. E. Nakkeeran were also present on the occasion

Industrial Visits

Events Department



Year: III B.Tech. Chemical Engineering
Company Name: Canara Lighting, Mangalore, Karnataka
Date: 01:04:2022

Industrial
Visits

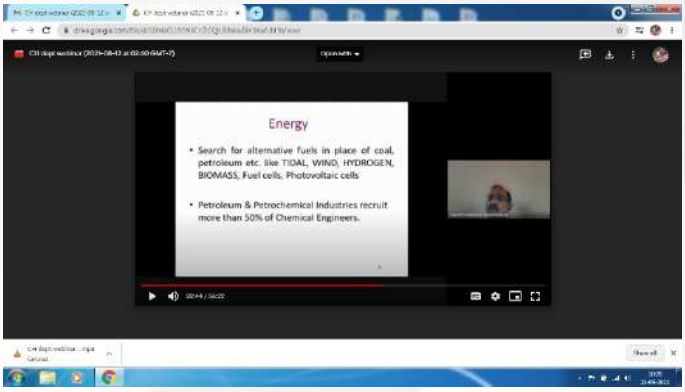
Events
Department

Year: I B.Tech. Chemical Engineering
Company Name: Benchmark Tea Factory and Chocolate Factory, Ooty, Tamil Nadu
Date: 23:04:2022

Technical Talks

Dr. N. Anantharaman, Distinguished Professor, National Institute of Technology, Trichy presented a webinar on the topic "Challenges Ahead of Chemical Engineers" on 12.08.2021. The webinar was organized by the Department of Chemical Engineering. The webinar helped students to comprehend how Chemical Engineer's work has helped to shape societies and the lives of people throughout the years, as well as the challenges they face as future Chemical Engineers.

Invitation of the webinar



Online screenshot of the webinar

The Department of Chemical Engineering hosted a webinar delivered by Dr. S. Prabhakar, Distinguished Professor, Department of Chemical Engineering from SRM Institute of Science & Technology, themed "Role of Chemical Engineers in Research and Industries in the Digital Age" on 30.09.2021.

Invitation of the webinar

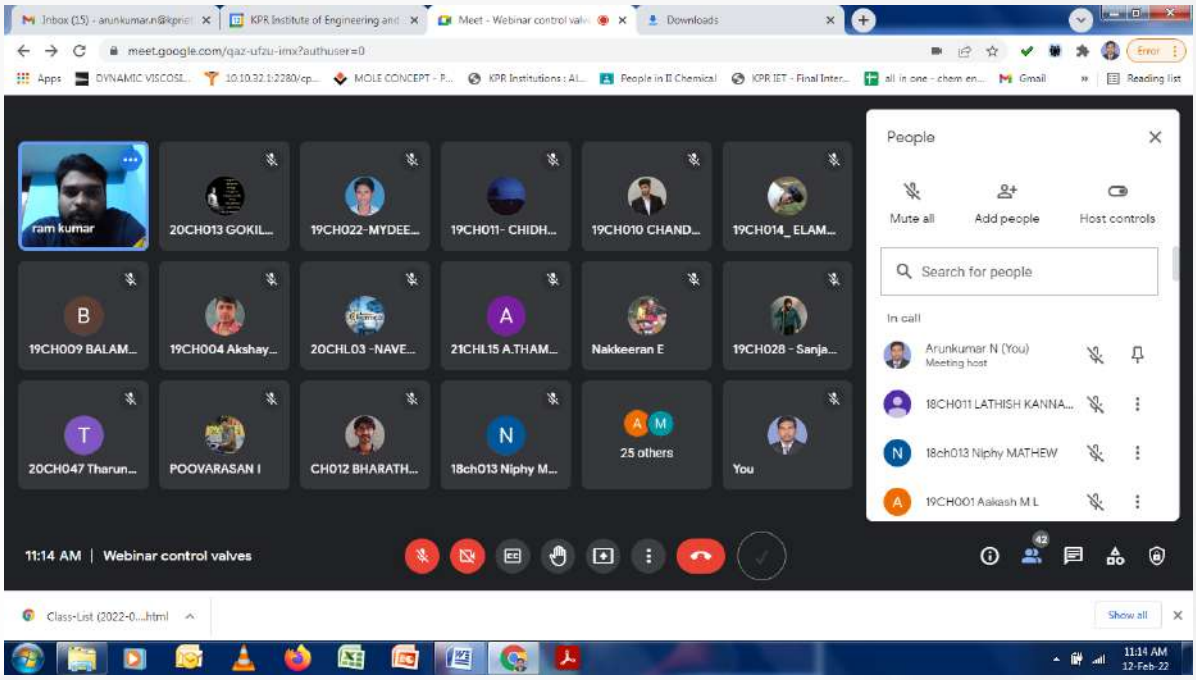
The webinar supported students in comprehending their function as Chemical Engineers in the new digital era of research and industry.

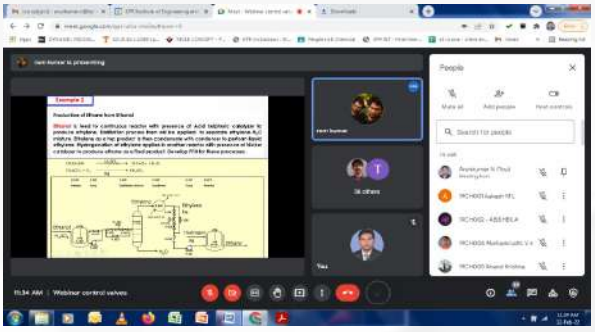
Technical Talks

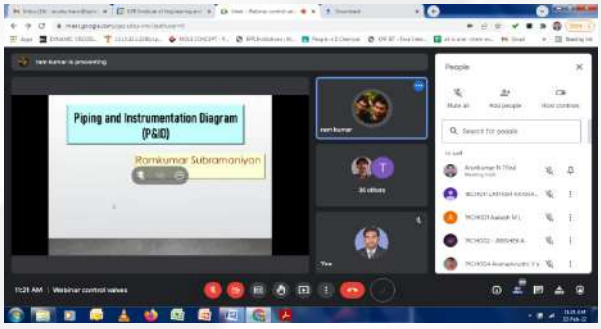
Department of Chemical Engineering at KPR Institute of Engineering and Technology, Coimbatore has organized a guest lecture titled, 'Wonders of Engineering' on 09.02.2022, at 02.30PM - 04.30PM in third Year class room. Innovation Officer, Aviation and Robotics Club, of KPRIET, Dr. S. Arivazhagan, was the speaker of the invited talk. There were around 60 participants including faculty members. The session was very informative and interactive. Participants had gained knowledge on innovation and awareness of various competitions conducted throughout the country. The event came out successfully

Department has organized a webinar on 'Piping and Instrumentation for Chemical Engineers' on 12.02.2022, 11.00AM - 12.00 Noon in Google meet. Mr. S. Ramkumar, Inside Sales Engineer, IMI Critical Engineering, Bangalore was the speaker of the invited talk. There were around 50 participants including faculty members. The session was very informative and interactive. Participants had gained knowledge on piping and instrumentation of various process industries.

Technical Talks







S. Ramkumar, Inside Sales Engineer, IMI Critical Engineering, Bangalore, India was presenting the invited talk on piping and instrumentation for chemical engineering through google meet

Students listening to the presentation delivered by Mr. Saravanan B. K., Asst. Prof., MechE, KPR IET

Technical Talks

Dr. S. Balasubramanian, Professor and Head, Department of Chemical Engineering, KPR Institute of Engineering and Technology, gave a special talk titled "Chemical Engineers: Untold Contributions to Humanity," which was jointly organized by the Department of Chemical Engineering and the Office of Admissions for higher secondary school students. The students found the session extremely beneficial in learning about the importance of Chemical Engineers and their contributions to society.

A section of students listening to the presentation of Dr. S. Balasubramanian

Interaction with students after the presentation with Dr. S. Balasubramanian

Technical Talks

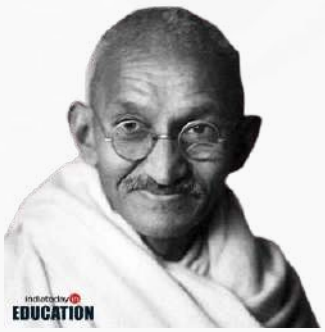
An Interaction session in Kids Club Matric Higher Secondary School, Kinathukadavu, Pollachi Road on career guidance towards Higher Education was organized by office of admissions in association with department of chemical engineering, KPRIET. The snapshots of the session is given in this section

A section of students in the presentation of Dr. S. Balasubramanian, Head, ChemE, KPRIET Coimbatore

The best academic performer in the school was appreciated with certificates and medals by Principal

A section of students in the presentation of Dr. Anand from Office of Admissions, KPR IET, Coimbatore

The best academic performer in the school was appreciated with certificates and medals



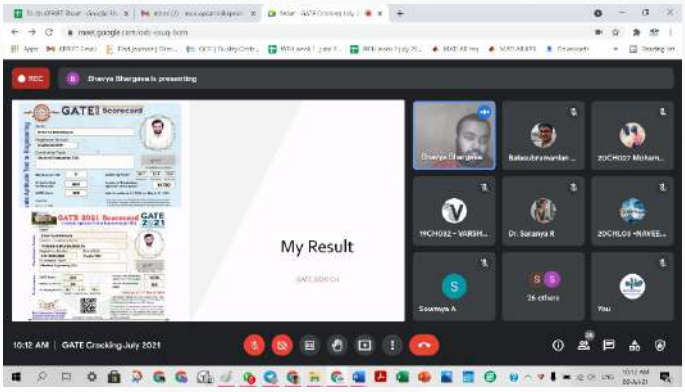
"By education, I mean an all-around drawing of the best in child and man in body mind and spirit."

- Mahatma Gandhi

Technical Talks

The Department of Chemical Engineering and Career Advancement Cell conducted a webinar by Mr. Bhavya Bhargava, Department of Chemical Engineering from IIT Bombay, on "Cracking GATE - Chemical Engineering" (06.07.2021). The webinar benefited students in gaining an idea of how to clear the GATE with a good cut off and knowledge on the vital topics that should be focused.

Invitation of the webinar

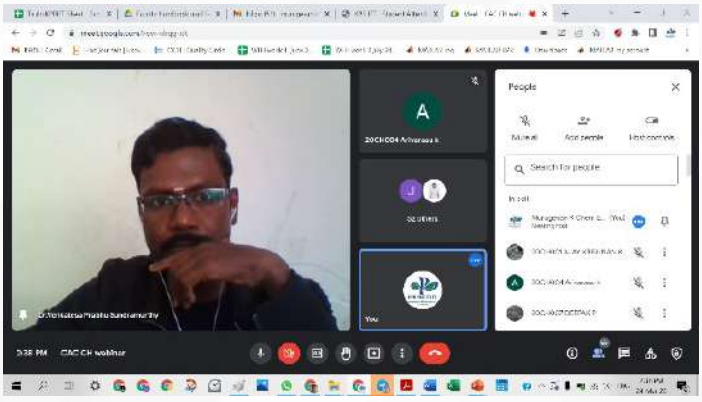


Online screenshot of the webinar

The Department of Chemical Engineering and Career Advancement Cell jointly organized a webinar by Ms. Nasima, M.S. Scholar from Imperial College, London, on "Career opportunities in Foreign Universities" (23.10.2021). The webinar provided students with a comprehensive understanding of pursuing Master's in foreign universities as well as the career options open to Chemical Engineers.

Technical Talks

The Department of Chemical Engineering and Career Advancement Cell jointly organized a webinar presented by Dr. S. Venkatesa Prabhu, Assistant Professor from Addis Ababa Science and Technology University, Ethiopia, on "Chemical Engineering: A Broad University of Profession" on 24.03.2022. The webinar was an eye-opening experience for students that provided information on the plethora of job prospects accessible to Chemical Engineers.



Online screenshot of the webinar presented by Dr. S. Venkatesa Prabhu from Addis Ababa Science and Technology University , Ethiopia

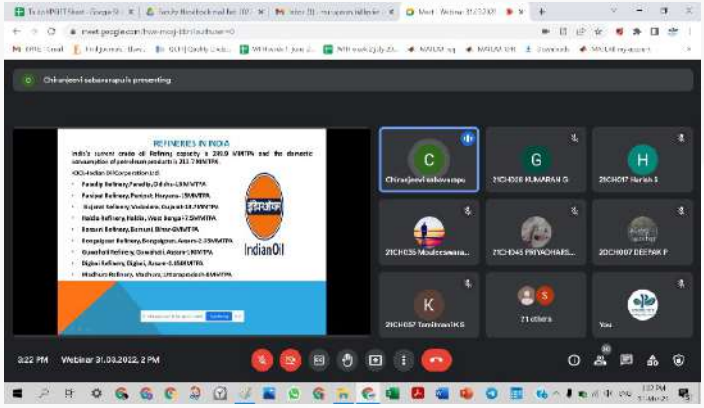
Mr. Ajay Koushik, a full-time Research Scholar from the Department of Chemical Engineering, IIT Madras, presented a guest lecture titled, "Look around, we are omnipresent" on 12.04.2022 at the Department of Chemical Engineering. The lecture was attended by 60 students and faculty members of the Chemical Engineering department. The session has provided an insight into the Chemical Engineers and their role in day-to-day activities with special emphasis on reaction kinetics and energy.

Technical Talks

The Department of Chemical Engineering hosted Distinguished Lecture Series, Shri. Chiranjeevulu Retd. Chief Manager, ONGC-MRPL Mangalore, shared his experience on "An overview of Petroleum Refinery" on March 31, 2022. More than 80 students attended this online lecture. Shri. Chiranjeevulu, effectively explained the importance of computational skills required in petroleum refinery. Faculty members also attended the webinar. Shri. Chiranjeevulu interacted with students and faculty members at the end of the session. It was an informative and exciting event for the students and faculty members of the department.

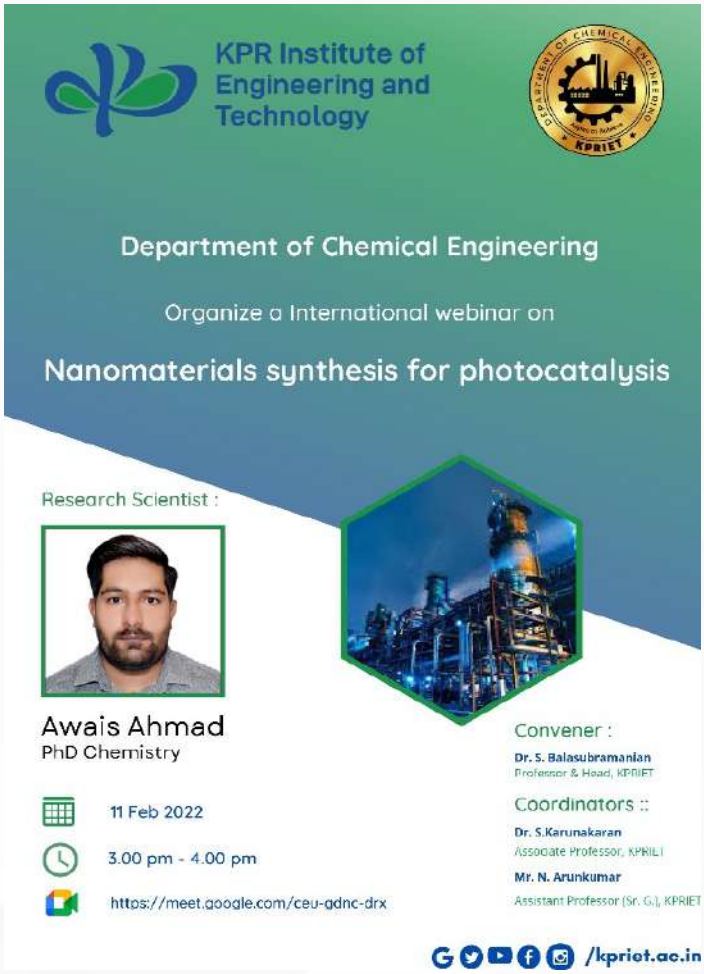
A section of students in Mr. Ajay Koushik presentation

Screenshot of the online presentation given by Shri Chiranjeevulu, Retired Chief Manager of ONGC – MRPL Mangalore.



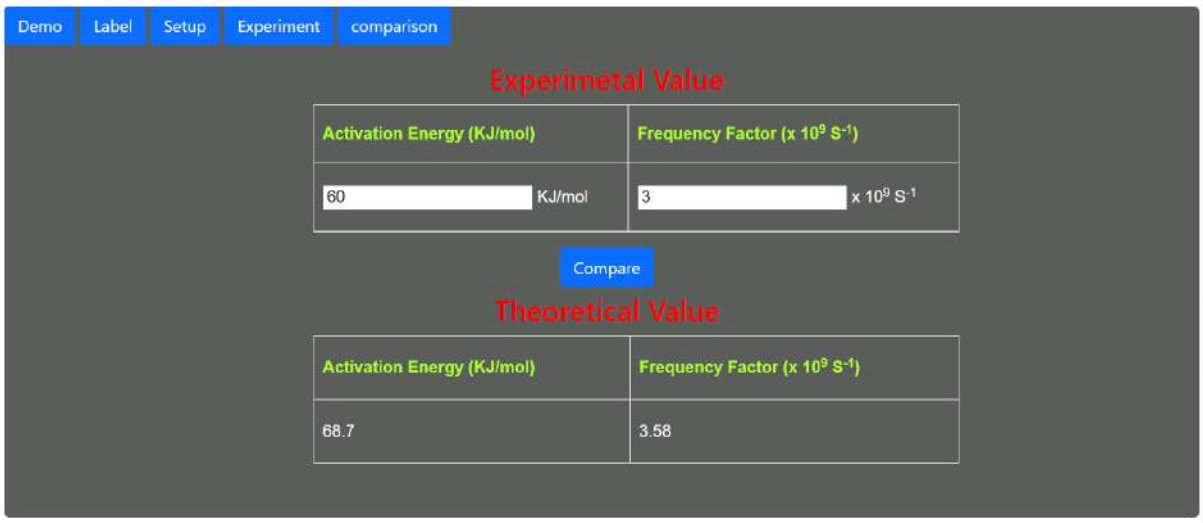
Technical Talks

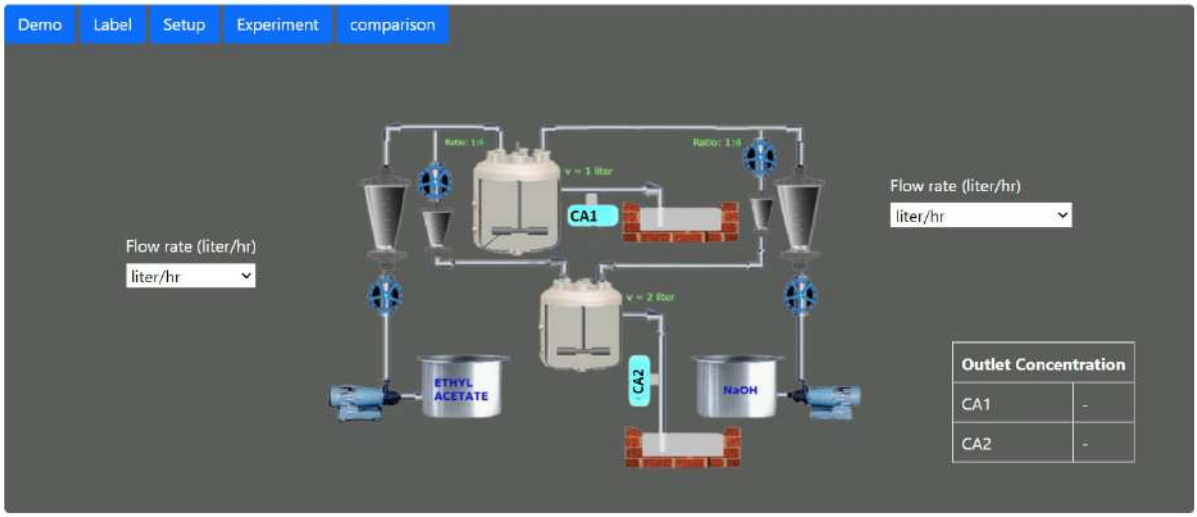
The Department of Chemical Engineering organized an International webinar on, "Nanomaterials synthesis for photocatlysis", by Dr. Awais Ahmad of Departamento de Quimica Organica, Universidad de Cordoba, Edificio Marie Curie (C-3), Ctra Nnal IV-A University of Spain. The session was well received and appreciated by the students and faculty members of the department. Dr. Awais Ahmad interacted with students and faculty members at the end of the session. It was an interesting and exciting sessions for the students and faculty members of the department to understand the materials behavior in nanoscale.



Dr. Lineesh Punathil created a virtual lab and presented it. The virtual lab developed by him was selected as one the best virtual labs by IIT PALS. Fellow faculties found the program to be really a beneficial and productive

The snap shots of the virtual lab created by Dr. Lineesh Punathil





Technical Talks

Dr. S. Balasubramanian, Professor and Head, Department of Chemical Engineering, KPR Institute of Engineering and Technology, delivered a guest lecture titled "Role of Mechanical Engineers in Chemical Process Industries" organized by GRG Polytechnic College on 02.06.2021. The lecture energized the students and helped them to realize the diverse role they can play as Mechanical Engineers in the Chemical Process Industries.

Dr. S. Balasubramanian, Professor and Head, Department of Chemical Engineering, KPR Institute of Engineering and Technology, delivered an expert talk on "Happiness as Goal: Styles of Teaching and Learning in Engineering" under the theme Global Innovative, Trends, Technologies and Practices. Various heads of departments in the institute and our Principal

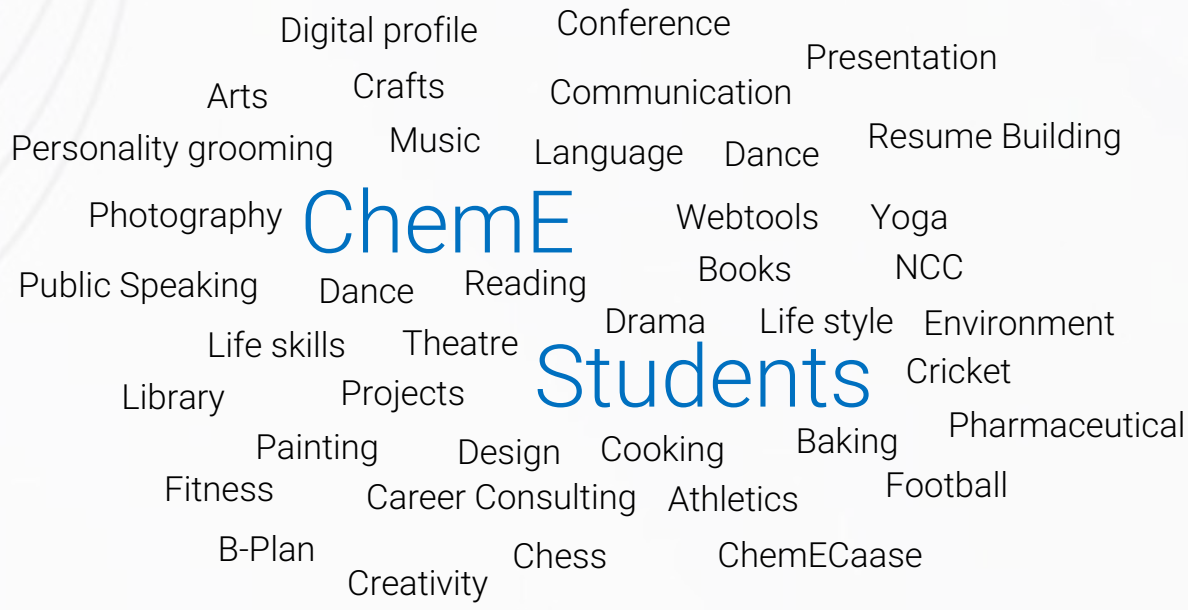
Our Students in Sports

Students Achievements

Student Name	Year	Title of the Event	Event Organized by
Vinothane K T	I B.Tech. Chemical	1st Place in Throw Ball	KPR Institute of Engineering and Technology
Chellamirthini M	I B.Tech. Chemical	1st Place in Relay 3rd Place in Kho-Kho, Badminton Winner	KPR Institute of Engineering and Technology
Sathyaprakash M S	I B.Tech. Chemical	3rd Place in Volley Ball	KPR Institute of Engineering and Technology
Harish S	I B.Tech. Chemical	Kabbadi	KPR Institute of Engineering and Technology
Dhanush Kumar K	I B.Tech. Chemical	Kho-Kho Runner	KPR Institute of Engineering and Technology
Eraja Srider T	I B.Tech. Chemical	1st Place in Football, 2nd Place in Long Jump, 2nd Place in 100 meters, 3rd Place in High Jump	KPR Institute of Engineering and Technology
Arun Vijayan	II B.Tech. Chemical	Football tournament	SNS College of Engineering
Gnanasekar	II B.Tech. Chemical	Football tournament	SNS College of Engineering
Harsh Mohan	II B.Tech. Chemical	Football tournament	SNS College of Engineering
Santhosh M	II B.Tech. Chemical	Football tournament	SNS College of Engineering
Chandru S	III B. Tech. Chemical	Gold Medal jn Kho-Kho	Rural Sports and Games Development Foundation Uttar Pradesh
Cdt. Karthick	III B. Tech. Chemical	Best Cadet in Senior Division AIR	Combined Annual Training Camp-I 2021
Dinesh K	IV B. Tech. Chemical	Secured Gold medal in Discus Throw	2nd State Level Championship 2021 Tamil Nadu Youth and Sports Development Association

Our Students in Technical Events

Students Achievements



- Image courtesy (The Pinnacle Global School)

Our Students in Scholarly Activities

Students Achievements

Student Name	Batch	Title of the Event	Event Organized by
Kumaran G	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Umamaheswari B	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Shreenithee D	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Manikandan R	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Musfira Ramalan	I B.Tech. Chemical	EFNOTS-2022	KPR Institute of Engineering and Technology
Devadharshini D	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Pavithra M	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Mownika N	I B.Tech. Chemical	ICMSEAT	KPR Institute of Engineering and Technology
Akila S	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Hemasri C	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Akshaya K	I B.Tech. Chemical	ICMSEAT	KPR Institute of Engineering and Technology
Archana M	I B.Tech. Chemical	ICMSEAT	KPR Institute of Engineering and Technology
Suganraj A	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Chellamirthini M	I B.Tech. Chemical	ICMSEAT	KPR Institute of Engineering and Technology

Our Students in Scholarly Activities

Students Achievements

Student Name	Batch	Title of the Event	Event Organized by
Seshan E	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Varun Y	I B.Tech. Chemical	Innovsense-22	KPR Institute of Engineering and Technology
Varshini J	I B.Tech. Chemical	EFNOTS-2022	KPR Institute of Engineering and Technology
Sushmitha A S	I B.Tech. Chemical	EFNOTS-2022	KPR Institute of Engineering and Technology
Surya Prakash S	I B.Tech. Chemical	ICMSEAT	KPR Institute of Engineering and Technology
Haresh M	I B.Tech. Chemical	ICMSEAT Yugha	KPR Institute of Engineering and Technology
Eraja Srider T	I B.Tech. Chemical	ICMSEAT Yugha	KPR Institute of Engineering and Technology
Ramkumar K	II B.Tech. Chemical	CHEM-E-CASE	NIT Warangal
Abishek S P	II B.Tech. Chemical	Case study	NIT Warangal
Irainabu R	II B.Tech. Chemical	CHEM-E-CASE	NIT Warangal
Jimkoriyar J	II B.Tech. Chemical	Chemcee22	Jansons institute of technology
Thamarai Selvan A	II B.Tech. Chemical	Chemcee22	Jansons Institute of technology

Our Students in NPTEL

Students Achievements

Student Name	Year	Course	Rank Status
Deepak J	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Deepak J	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Deepak P	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Deepak P	II B.Tech. Chemical	Wastewater Treatment and Recycling	Elite
Gokila M	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Gokila M	II B.Tech. Chemical	Wastewater Treatment and Recycling	Elite
Dhanya Sri M	II B.Tech. Chemical	Wastewater Treatment and Recycling	Successfully Completed
Judith Infanta M	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Judith Infanta M	II B.Tech. Chemical	Wastewater Treatment and Recycling	Elite
Logeshwaran M	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Midhun M	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Naveen Hubert A	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Elite
Naveenkumar S	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Sakthi Shankar R	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed

Our Students in NPTEL

Students Achievements

Student Name	Year	Course	Rank Status
Parrvathavarthini GK	II B.Tech. Chemical	Wastewater Treatment and Recycling	Elite
Ramkumar K	II B.Tech. Chemical	Technologies for Clean & Renewable Energy Production	Successfully Completed
Ramkumar K	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Successfully Completed
Teepak Soorya S	II B.Tech. Chemical	Renewable Energy Engineering: Solar, Wind and Biomass Energy systems	Elite
Varsha J	III B.Tech. Chemical	Membrane Technology	Successfully Completed
Harine	III B.Tech. Chemical	Membrane Technology	Successfully Completed
Janani S W	III B.Tech. Chemical	Membrane Technology	Elite
Nithish M	III B.Tech. Chemical	Polymer Reaction Engineering	Elite
Mohamed Rizal S	III B.Tech. Chemical	Membrane Technology	Successfully Completed
Boomika C	III B.Tech. Chemical	Renewable Energy Engineering: Solar, Wing and Biomass Energy Systems	Successfully Completed
Naveen Kumar S	III B.Tech. Chemical	Membrane Technology	Successfully Completed
Mydeen Kirthu Oli D	III B.Tech. Chemical	Polymer Reaction Engineering	Successfully Completed
Sathiyaseelan S	III B.Tech. Chemical	Membrane Technology	Successfully Completed
Sriram K	III B.Tech. Chemical	Polymer Reaction Engineering	Successfully Completed

Our Students in NPTEL

Students Achievements

Student Name	Year	Course	Rank Status
Guhan	III B.Tech. Chemical	Renewable Energy Engineering: Solar, Wing and Biomass Energy Systems	Successfully Completed
Selva Sakthi S	III B.Tech. Chemical	Polymer Reaction Engineering	Elite Silver
Sivakumar T	III B.Tech. Chemical	Polymer Reaction Engineering	Successfully Completed
Abishek A	III B.Tech. Chemical	Polymer Reaction Engineering	Elite
Sivabalasudhan K	IV B. Tech. Chemical	Aspen Plus simulation software a basic course for beginners	Elite
Sagil Varghese	IV B. Tech. Chemical	Chemical Process Control	Elite

Our Students in Quiz Competitions

Student Name	Year	Events Organized by
Mownika N	I B.Tech. Chemical	EEE, KPRIET
Surya Prakash S	I B.Tech. Chemical	PSG CAS, Kongu Engineering College
Umamaheswari B	I B.Tech. Chemical	Department of Physics, KPRIET
Shreenithee	I B.Tech. Chemical	Department of Physics, KPRIET

Celebrating the success of our students in Annual Day 2022

Students Achievements

Student Name: Sivabalasudhan K

Year: IV B.Tech Chemical

Award Name: BEST STUDENT AWARD – 2022

Student Name: Sanjay K R

Batch: IV B. Tech. Chemical

Award Name: BEST STUDENT AWARD – 2022

Student Name: Harine S. B

Batch: III B. Tech. Chemical

Award Name: BEST STUDENT AWARD – 2022

Student Name: Janani S.W

Batch: III B. Tech. Chemical

Award Name: BEST STUDENT AWARD – 2022

Celebrating the success of our students in Annual Day 2022

Students Achievements

Student Name: Gokila M

Batch: II B. Tech. Chemical

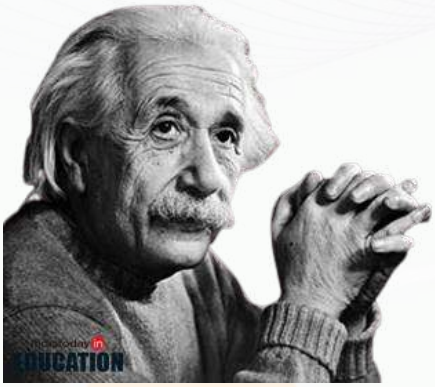
Award Name: BEST STUDENT AWARD – 2022

Student Name: Deepak P

Batch: II B. Tech. Chemical

Award Name: BEST STUDENT AWARD – 2022

Department congratulates all of the awardees and wish them all the very best in their future endeavors



"Education is not the learning of facts, but the training of mind to think."

-Albert Einstein

Research Publications of our faculty members

Faculty Achievements

S. No	Faculty Name	Title of the Paper	Journal Name
1	Dr.G.Surendran	Using the Artificial Neural networks to Predict the Solubility Effects of Theophylline Drug in Hydrotropic Solutions	International Journal of Pharmaceutical Research
2	Dr. Lineesh Punathil	Recovery of Pure Silicon and Other Materials from Disposed Solar Cells	International Journal of Photoenergy
3	Dr.S.Balasubramanian	Eco-friendly pH detecting paper-based analyticaldevice: towards process intensification	Analytica Chimica Acta
4	Dr.S.Balasubramanian	Lab-on-a-chip technologies for food safety, processing, and packaging application: a review	Environmental Chemistry Letters
5	Dr.S.Balasubramanian	Studies on the feasibility of bisphenol-A removal and its kinetics using Pseudomonas aeruginosa in both flask and inverse fluidised bed reactor.	Chemical Engineering Communications
6	Dr.G.Surendran	Process technology for the removal of Cr(VI) from waste water by using Pig Iron sludge	Chemical Engineering and Technology
7	Dr.G.Surendran	Removal of contaminants from waste water by using Murrayakoenigii nanoparticles	Materials Today: Proceedings
8	Dr. A. Sowmya	Biopolymer-Supported TiO2 as a sustainable photocatalyst for wastewater treatment. A review	Environmental Chemistry Letters
9	Dr. R. Bharathi Ganesan	Maximizing Adsorption involving three solutes on enhanced adsorbents using the mixture process variable design	ACS Omega
10	Dr. M. Ramasamy	Data-Based Modeling of a Nonexplicit Two-Time Scale Process via Multiple Time-Scale Recurrent Neural Networks	I&ECR Industrial and Engineering Chemistry Research

Research – Conference Presentation

Faculty Achievements

S. No.	Faculty Name	Title of the Paper	Conference Name	Institute
1	Dr. Lineesh Punathil	Effect of susceptor thickness on microwave heating of lossy materials	Recent Trends in Clean Technologies for Sustainable Environment CSTE-2021	SSN College, Chennai
2	Dr. Lineesh Punathil	Microwave heating of food material: Role of susceptor	ICCMES-2021	KPRIET
3	Dr.G.Surendran	Remediation of Cr(VI) from wastewater using biochar of Indian grass	ICCMES-2022	KPRIET
4	Dr.S.Karunakaran	Sequestration of Potential Enzymes from Mushrooms compost waste	ICCMES-2023	KPRIET
5	Dr.G.Surendran	Process Technology for the Removal Cr(VI) from wastewater using pig iron sludge	ICHEEC 2021	NIT, Jalandhar
6	Dr.G.Surendran	Removal of contaminants from waste water by using Murrayakoenigii Nanoparticle	ICHEEC 2022	NIT, Jalandhar

Research
Patents filed

Faculty
Achievements

S.No.	Name of the applicants	Title	Application No.	Date of publication	current status
1	**S.Karunakaran,** A.Balamurugan, N.Bhuvaneswari	Long range spy robot with night vision	202141039102	24-09-2021	Published (under examination)
2	**S.Karunakaran,** S.Sivaraju, S.Suresh	A device for harvesting power using atmospheric pressure variations and a process thereof	202141046364	31-12-2021	Published (under examination)
3	D. Venkatesan, Mohana prakash, D. Prabu, S. Sathish, **S. Balasubramanian**	Synthesis method of Bioplastic materials and biodegradation analysis	202141060784	25-12-2021	Published (under examination)
4	K.S. Tamilselvan S. Balasubramanian Balaji. D Rajeshwari Hegde	Smart on spot clinical assistive device	202241023494	21/04/2022	Published (under examination)

"Things that people learn purely out of curiosity can have a revolutionary effect on human affairs"

- Frederick Seitz, American physicist

NPTEL Courses

Faculty Achievements

S. No.	Faculty Name	Course Name	Duration (Weeks)	Category
1	Dr. S. Balasubramanian	Aspen Plus Simulation Software-A Basic Course for Beginners	12	Elite Silver
2	Dr. A. Sowmya	Trace and Ultra Trace Analysis of Metals Using Atomic Absorption Spectroscopy	8	Elite Silver
3	Dr. P. Lineesh	Fundamentals of Artificial Intelligence	12	Elite
4	Dr. E. Nakkeeran	Fundamentals of Artificial Intelligence	12	Elite
5	Mr. N. Arunkumar	Aspen Plus Simulation Software-A Basic Course for Beginners	12	Elite
6	Dr. S. Karunakaran	Fundamentals of Artificial Intelligence	12	Elite
7	Dr. G. Surendran	Fundamentals of Artificial Intelligence	12	Successfully Completed

Faculty Achievements

Celebrating the success of our faculty members in Annual Day 2022

BEST RESEARCH AWARD 2022

Dr. G. Surendran

Associate Professor

BEST FACULTY AWARD 2021

Faculty Name: Mr. K. Murugesan

Assistant Professor (Sr. G)

BEST FACULTY AWARD 2022

Faculty Name: Mr. N. Arun Kumar

Assistant Professor (Sr. G)

Faculty Achievements

Celebrating the success of our faculty members in Annual Day 2022

BEST MENTOR AWARD 2022

Dr. E. Nakkeeran

Associate Professor

BEST STAFF AWARD 2022

Mr. Naveen

Technical Staff

BEST STAFF AWARD 2021

Ms. Kousalya

Office Staff

Campus Placements

Students placed in different companies in campus during the academic year 2021-2022

9 LPA	4.2 LPA
Maximum CTC	Average CTC

Companies hired our students are

deccan · KRISH CARBON · CHEMIN ENVIRO SYSTEMS PVT. LTD. U STAMP AND DSIR CERTIFIED COMPANY · AGRID SCIENTIFIC LLP We Engineer Sustainability · Tuticorin Alkali Chemicals and Fertilisers Ltd · wipro · Infosys · zolo · HARJI LAB SYSTEMS · skolar BE A STEP AHEAD

Our faculty Members

Dr. S. Balasubramanian
Professor &
Head ChemE

Dr. M. Ramasamy
Professor, ChemE &
Strategic Advisor, KPRIET

Dr. E. Nakkeeran
Associate Professor
ChemE

Dr. G. Surendran
Associate Professor
ChemE

Dr. S. Karunakaran
Associate Professor
ChemE

Dr. R. Umapriya
Assistant Professor (Sl.G)
ChemE

Dr. Lineesh Punathil
Assistant Professor (Sr.G)
ChemE

Mr. K. Murugesan
Assistant Professor (Sr.G)
ChemE

Mr. N. Arun Kumar
Assistant Professor (Sr.G)
ChemE

Dr. Nitu Kumari
Assistant Professor (Sr.G)
ChemE

Dr. R. Bharathi Ganesan
Assistant Professor (Sr.G)
ChemE

Ms. L. Dharani
Assistant Professor
ChemE

Dr. A. Soumya
Assistant Professor (Sl.G)
Chemistry & ChemE

Faculty Corner

Dr. G. Surendran

My research work in the area of Waste water treatment mainly focused on the heavy metal removal from the effluent through adsorption process. Optimization of Cr(VI) adsorption process using statistical design of experiments. Modelling of dispersion of toxic gas releases from chimneys. To optimize the operating conditions, a full factorial design of experiment was used by empirical model was developed using factorial design of experiment and use of different tools like MINITAB and LabVIEW to simulate or analyze the empirical model.

My area of interest is in treatment of wastewater specifically focussed on Hexavalent Chromium Removal from the synthetic and electroplating effluent using novel biosorbents by biosorption process. Predicting suitable isotherm and kinetic models.. Also various characterisation studies such as Elemental analysis, Fourier Transform Infra-Red Spectroscopy (FTIR), Scanning Electron Microscope (SEM), Energy Dispersive Xray Spectroscopy (EDAX) and Thermo Gravimetric Analysis (TGA) were also performed.

Dr. E. Nakkeeran

Dr. S. Karunakaran

My research work is based on production of biofuel (ethanol) from seaweeds and production of biofertilizers . The study aims at investigating the feasibility of sustainable long-term bioethanol production from the hydrolysates of brown seaweed Sargassum myriocystum and red seaweed Gracilaria cortecata. The acid hydrolysates of the seaweeds subjected to enzyme saccharification and two ethanol tolerant yeast strains were isolated and identified by phenotypic and genotypic characterization.

At present, a huge amount of research is being carried out worldwide in the field of solar cells. My past research was focused on the perovskite solar cells (PSCs) because of low material costs, ease of fabrication, high throughput, and flexibility. However, the key limitation of PSCs as of now is their low efficiencies arising due to the various recombination losses and less stability in atmospheric environment. In order to enhance the efficiency, it was essential to minimize the disorders, which can be done by optimizing the materials deposition parameters. Therefore, in our past work, we have fabricated and optimized PSCs under different processing conditions. My area of interest is optimization of different layer using different techniques and their application in energy storage device.

Dr. Nitu Kumari

Dr. A. Sowmya

My research outcomes are in the following fields. Water and Waste Water Treatment - Safe Drinking Water - Development of Novel Technologies – Modeling - Biopolymers - Photocatalytic degradation - Membranes - Ultrafiltration - Polymeric Resins - Nanomaterials and Nanocomposites - Organic/inorganic Hybrids - Ion Exchangers - Clay and Ceramics - Adsorbents and Adsorption Process - Column Technique - Nitrate removal and recovery - Phosphate removal and recovery - Fluoride and Other Anions Removal – Heavy metal removal - Activated carbon – Dyes, pesticides and other organic pollutants

My research work is in the field of multicomponent adsorption using microwave activated carbon. I use open source tools such as DWSIM, python and OpenFOAM to understand chemical engineering problems. My problem solving approach is NIChE i.e nature inspired chemical engineering where we ask if nature has solved this problem earlier as part of her millions of years of evolution. Then I try to apply these principles or borrow the structural element from nature to solve the problem at hand. I also try to use machine learning algorithms and design of experiments like mixture design and response surface methodology to identify patterns present in the data and establish the relation between the variables. I am currently working on modelling problems in chemical

Dr. R. Bharathi Ganesan

Dr. Lineesh Punathil

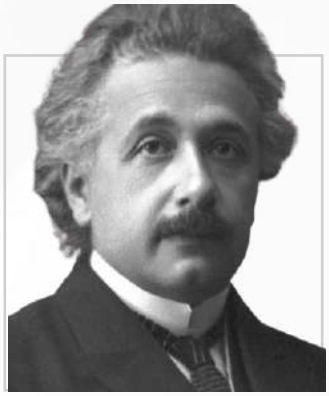
My research interests are microwave heating of materials, recycling of E-waste, desalination of water and photocatalysis. I have been working on recovering pure silicon from disposed solar cell. We identified suitable chemical reactions to recycle disposed solar cells by replacing HF acid. The pure silicon and secondary materials present in the solar cells have been recovered efficiently at the lab-scale. Currently, I am analysing the effect of susceptor thickness on microwave heating of food materials. In addition, we have developed a virtual lab for reaction kinetics.

Dr. R. Umapriya

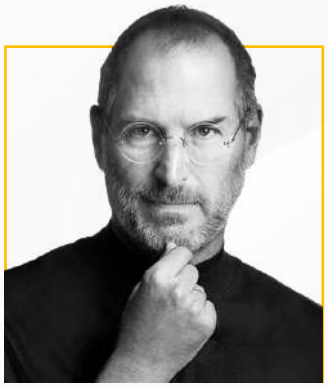
My research area is mainly on Water and wastewater treatment. Effluents from industries and wastewater from the residences and commercial areas should be the zero-pollutant before taking this for further use or to dispose. Extending the research work in the water and wastewater (domestic sewage, saline water, textile, food, pharmaceutical and tannery effluent, *etc.*) treatment with the help of the membrane filtration. Research is mainly focused on the preparation of low-cost high-performance membrane for the water and wastewater treatment. At present, the trials are done with the batch filtration setup. Preparation and Characterization of flat sheet membrane by using polymer, Ceramic and mixed matrix materials are carried out in the initial stage. Increasing the efficiency of the membrane on the pollutant removal, Preparation of the membrane by using biopolymer and bioceramic materials, and Design of filtration assembly are the recent thrust areas.

"It is the supreme art of the teacher to awaken joy in creative expression and Knowledge".

- Albert Einstein
(Theoretical physicist)



"Have the courage to follow your heart and intuition. They somehow know what you truly want to become" – Steve Jobs



Students Corner

JANANI

I'm Janani from 1V year Chemical engineering at KPRIET. I had a great experience provided by the personal attention, personality and skill development, first-class education with the excellent academic theory and practical skills. Life in our college is like amalgamation of learning and enjoyment. Greenish campus friendly environment and full of resources. We explore ourselves by taking part in fests, sports and extracurricular activities, also our major events SANGAMAM and IGNITRRON. Overall I had a wonderful experience during the academic year 2021-2022

I had a boundless experience with a binding of fascinating subjects, splendid conference, fabulous technical events, interdisciplinary projects and upgrading schemes. The append of all the aspects made the year 2021-2022 very phenominal.

VARSHA

RAMKUMAR

I'm Ramkumar from III year Chemical Engineering at KPRIET. It is a good experience for me in our college where I was provided with a world-class education. Our College had provided us with wider opportunities to showcase our talents. KPRIET provided us with a good and clean environment with essential resources. We're constantly upgrading our professional as well as our interpersonal skills through the participation / Volunteering in Intra college events conducted by the main Clubhouses of KPRIET - SANGAMAM and IGNITRRON and also through participation in inter-college events.

I'm proud and happy to be a KPRIETIAN.

I'm Gokila from III Year Chemical Engineering at KPRIET. I had a vast and great experience in skill development, academics, extra and co- curricular activities. I am very proud to be a KPRIET student. KPRIET-"Heaven, Palace of Love". KPRIET is a Green Campus, a great place to work, learn and innovate. We explore our innovation and talents through SANGAMAM AND IGNITRON.The one place where we get all our freedom to learn, to explore our talents, innovation etc., is KPRIET. Overall I had an amazing and wonderful experience during the academic year 2021- 2022.

GOKILA

UMAMAHESWARI

I am Umamaheswari of first year Chemical Engineering. The campus groups and student groups at KPRIET have helped me to explore co-curricular skills along with many other students. It is with immense satisfaction, I can say that it was a tremendous academic experience with a great knowledge of science and engineering principles.

Research
In the department

Our department carries out extensive research in a variety of areas. Our professors have worked on projects and written articles in their areas of expertise, beginning with wastewater treatment plants that clean water by removing contaminants and allowing as much water as possible to be recycled rather than being wasted. Research focus is made on a particular technique called bioprocessing, which uses complete living cells or their components, such as bacteria, enzymes, and chloroplasts, to produce desired products. The use of lab-on-a-chip, a miniature device that combines one or more studies that are typically performed in a laboratory onto a single chip, was examined for its potential in the food industry. Journals on the microwave heating process, in which reactants or the heating medium receive microwaves produced by magnetrons and absorb the electromagnetic energy volumetrically to accomplish uniform self-heating, have been published. Analysis was done on the use of heat transfer concepts in metallurgy. Chemical systems were mathematically modelled using computational fluid dynamics. Perovskite solar cells were used in studies to improve power conversion. Research was prioritised around creating cutting-edge technologies like the Internet of Things (IoT), which enables automated processing. Other focus research topics were advanced process control and process modelling and simulation.

Research Focus

1. **Process Modeling and Simulation**
2. **Computational Fluid Dynamics**
3. **Water and Wastewater Treatment**
4. **Microfluidics (Lab-on-a-Chip)**
5. **Metallurgy and Heat Transfer**
6. **Bioprocessing**
7. **System Identification**
8. **Advanced Process Control**
9. **Industrial IoT**
10. **Microwave heating**
11. **Solar Cells Recycling**
12. **Perovskite Solar cells**

Research
In the department

Notable publications from the department in the academic year 2022 – 2023 are given below:

1. Sri Sruthi, P., **Balasubramanian, S.**, Senthil Kumar, P., Kapoor, A., Muthamilselvi, P., Meenu Mariam, J., and Prabhakar, S. (2021). "Eco-friendly pH detecting paper-based analytical device: Towards process intensification". Anal. Chim. Acta. 1182, 1-13.

2. Adithya, S., Ashish, K., Senthil Kumar, P., Muthamilselvi, P., **Balasubramanian, S.,** and Dai-Viet Nguyen, V. (2022). "Lab-on-a-chip technologies for food safety, processing, and packaging applications: a review". Environ. Chem. Lett. 20(1): 901–927.

3. Krishnan, S., Kapoor, A., Venkatesan, D., Sofiya, K., & **Balasubramanian, S**. (2021, August). Process design scheme on the feasibility of 1-decanol as a solvent in liquid-liquid extraction to recover anhydrous citric acid from water. In Journal of Physics: Conference Series (Vol. 1979, No. 1, p. 012007). IOP Publishing.

4. **Karunakaran, S., Surendran, G.**, Kavitha, S., Jayakumar, C., Reddy, M., and Saroj Sundar, B. (2022). "Process Technology for the Removal of Cr (VI) from Wastewater Using Pig Iron Sludge". Chem. Eng. J.

5. Kavitha, S., **Surendran, G., Karunakaran, S., Nitu Kumari.** (2022). "Removal of contaminants from waste water by using Murrayakoenigii nanoparticles". Mater. Today: Proc. 57 (4): 1906-1912.

6. Balakrishnan, A., **Sowmya Appunni**, Chinthala, M. (2022). "Biopolymer-supported TiO_2 as a sustainable photocatalyst for wastewater treatment: a review". Environ Chem Lett.

7. **Bharathi, G.**, Hariharan, B., and Kannan, A. (2022). "Maximizing Adsorption Involving Three Solutes on Enhanced Adsorbents Using the Mixture-Process Variable Design". ACS Omega. 7 (23), 19561–19578.

8. Venkatesh Prabhu, M., **Balasubramanian, S.**, Ashish Kapoor, Ketki joshi, Keya Joshi and Nasrin Shariffa. (2021). "Studies on the feasibility of bisphenol-A removal and its kinetics using Pseudomonas aeruginosa in both flask and an inverse fluidized bed reactor". Chem. Eng. Commun.

9. Jian, N. L., Zabiri, H., & **Ramasamy, M.** (2022). Data-Based Modeling of a Nonexplicit Two-Time Scale Process via Multiple Time-Scale Recurrent Neural Networks. Industrial & Engineering Chemistry Research.

KPR Institute of Engineering and Technology
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