KATHAN

E-Magazine of UPL University of Sustainable Technology



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Celebration of Independence Day

"Freedom is the essence of our identity, a legacy we honor and protect. Let's cherish the spirit of independence!"

India's 78th Independence Day was celebrated in a grand manner at UPL University of Sustainable Technology. NCC cadets welcomed the guests with a parade.

The flag was hoisted by Chief Guest **Rtn. Sunil Neve** (**President** - **Rotary Club of Ankleshwar**). On this occasion, UPL University President Ashok Panjwani, Provost Prof. Shrikant J. Wagh, Rotary Club members, Industry representatives, University officials, Faculty, Staff members, and students were also present. The chief guest and dignitaries present on the stage wished the Independence Day.

After hoisting the flag in the celebration, a cultural program consisting of dance, music, poetry and singing was organized by the students of UPL University.

CELEBRATING

INDEPENDENCE DAY

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A Faculty Development Program (FDP) titled 'Effective Speaking and Communication Skills' was organized on 3rd August (Saturday) from 10.00 am to 4.00 pm. It was very innovative in suggesting new ways to engage audiences' active presence and interaction throughout a session. The master class of Communication by **Rtn** Sunil Neve shared tips to build rapport with the audience and maintain their span of attention.

Mr. Neve's session threw light on various attributes of effective communication and explained methods of overcoming barriers in communication. The session would help our faculty members to develop an empathetic style of communication with students and peers. The session was organized by **Mathematics, Science & Humanities** department.





"अभ्युत्थानमधर्मस्य तदात्मानं सृजाम्यहम्॥"

The SRICT-ISR, UPL University of Sustainable Technology, Ankleshwar, has organized a FDP on "**Bhagavad Gita**"- An approach towards stress mitigation and holistic well-being for all teaching & non-teaching staff members of university on 17-08-2024.

Dr. Haresh Hon'ble speaker Shah presented various phenomenal deliberations on Bhagavad Gita. He discussed that the Gita teaches us to count our blessings, be grateful for everything we have and have a humble attitude for all successes and accomplishments. Bhagavad Gita states that mental health is important for everyone. Many people struggle with stress and anxiety, but by understanding ourselves better and connecting with our soul, we can find peace and happiness, no matter what changes happen in our lives. Summarizing the upanishadic conceptions of God, the Gita posits the existence of an individual self (Atman) and the supreme self (Brahman) within each being. The faculty members interacted with the Hon'ble speaker and clarified their perceptions about the Bhagavad Gita for holistic well-being.



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On August 22, 2024, the Nature Club of UPL University of Sustainable Technology, collaboration in with IOAC. successfully organized an Online Quiz Competition focused on "Renewable Energy & Biofuels." This initiative aimed not only to assess the participants' knowledge on environmental topics but also to raise awareness and encourage responsible actions towards the environment. The event saw enthusiastic participation from over 50 students across various disciplines, reflecting a strong commitment to sustainability. The department of Environmental Science & Technology heartily congratulates all the participants and winners.



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Shaikh Munazz

Felicitation Program for Peer Learner Students

The Felicitation program for Peer Learner Students was organized on 21st August 2024 to felicitate the students who have conducted PLI (Peer Learning Initiative) lectures during Jun-Dec 2023 (Winter-23) & Jan-May 2024 (Summer-24). The dice was graced by Chief Guest Mr. J.B. Mistry, Principal, ITI Ankleshwar, Provost UPL University Dr. Shrikant J Wagh, COE Dr. Purvi Naik, Dean Engg & COE Dr. Omprakash Mahadwad, Dean Science & Sustainability Dr. Snehal Lokhandwala, HODs, faculty members, staff members and students were present for the program. Dr. Shrikant J Wagh, Provost introduced PLI and its details to the audience in his welcome speech. He appreciated the students for their efforts in conducting PLI lectures and motivated them to take part in this unique initiative of the Institute. The efforts were appreciated with certificates and cash awards totaling ₹1,47,800/- distributed to 215 students. The program was coordinated by the Department of Computer Engineering & Information Technology.



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"Alone, we can do so little; together, we can do so much."

The Department of Electrical Engineering has processed MoU between UPL University of Sustainable Technology and Astek Electricals Pvt. Ltd., Tula Trans Electricals and Urja Consulting Engineers. The SRICT-ISR, has processed MoU between UPL University of Sustainable Technology and Sargam Enterprise, Ankleshwar.



Outstanding Academic Achievements

We are happy to share that the IIChE Students Chapter -SRICT has been awarded the Best Students' Chapter Award for the academic year 2023-24 by IIChE - Ankleshwar

Regional Centre.





Literary Article

Exploring the Importance of Sustainable Chemical Processes in Modern Industry

Introduction:

Sustainable chemical processes are pivotal in minimizing environmental impact while maintaining economic viability. These processes focus on reducing hazardous waste and raw materials, using environmentally friendly solvents like Natural Deep Eutectic Solvents (NADES) or ionic liquids, and operating under milder conditions such as low temperatures and atmospheric pressure. The concept of sustainability, which prominence from the 1987 Brundtland gained Report. emphasizes development that satisfies present needs without compromising future generations' ability to meet theirs. In the context of the chemical industry, sustainability is evaluated economic, environmental, and social dimensions, across ensuring a holistic approach to sustainable development.

Environmental and Economic Benefits:

The integration of sustainable chemical processes in industrial applications is gaining traction due to their numerous environmental and economic advantages. These processes rely on renewable resources and aim to eliminate the production of toxic substances. A prominent example is the water-gas shift reaction, which produces hydrogen and carbon dioxide, with the latter being a separable by-product. Although this reaction is limited by equilibrium challenges, it exemplifies the potential for sustainable alternatives. The successful implementation of sustainable processes can lead to significant benefits, including cost savings, improved efficiency, reduced waste and emissions, and enhanced global competitiveness.



Technological Innovations:

Technological advancements are crucial in driving sustainability within the chemical industry. The need to alternative energy sources and energy-efficient develop technologies the world is paramount as faces the consequences of climate change and resource depletion. Renewable energy sources such as solar, wind, and biomass hold the promise of meeting global energy demands while significantly reducing greenhouse gas emissions. Innovations like nanoscale catalytic processes for water splitting and CO_2 reformation have the potential to replace fossil fuels in chemical processes. Additionally, new materials and processes for energy storage, electrochemical water splitting, and converting biomass into green chemicals and fuels are being developed, aligning with the industry's shift toward sustainability.

Challenges and Barriers:

Despite the progress, several challenges hinder the widespread adoption of sustainable chemical processes. Industrial processes often consume vast amounts of energy and raw materials, generating by-products that require treatment before environmental release. The treatment of these waste materials can be energy-intensive and may result in secondary pollutants if not managed properly. Furthermore, existing regulations under the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act necessitate the treatment of pollutants before discharge, adding to the industry's burden. Overcoming these challenges requires not only technological innovation but also significant investment and commitment from the industry.



Case Studies and Best Practices:

Real-world examples demonstrate the best practices in sustainable chemical processes, highlighting the use of alternative raw materials and greener solvents. For instance, ethanol and methanol derived from the fermentation of sugars are being explored as alternative reactants in chemical production. Additionally, hydrogen produced from the hydrolysis of water using renewable energy sources presents an ideal solution for replacing fossil fuels. However, the feasibility of these processes, especially on a large scale, remains a challenge. The adoption of greener solvents, such as solvent-free synthesis and solid catalysts, is also gaining momentum, offering safer and more sustainable alternatives to traditional chemical processes.

Conclusion:

The transition to sustainable chemical processes is essential for the chemical industry's future. By embracing renewable resources, reducing waste and emissions, and developing innovative technologies, the industry can achieve significant environmental and economic benefits. However, overcoming the existing challenges will require concerted efforts from all stakeholders, including industry leaders, policymakers, and researchers. The future of the chemical industry depends on its ability to balance growth with sustainability, ensuring a cleaner and healthier environment for future generations.

> Mr. Chintan K. Modi Assistant Professor,

Department of Chemical Engineering







Photography by- Tanmay Fatangare (M.Sc. Sem 1)

Students' Corner



Students' Corner

<u>मेरे माधव</u>

दुर्योधन सा अहंकारी मैं दूर करो मेरे अहंकार को मुझसे तुम्हारे पास माधव आया मैं...(1)

दुशासन सा घमंड़ी मैं बचालो मुझे मेरे घमंड़ से तुम्हारे पास माधव आया मैं ...(2)

भीष्म पितामह सा जिद्दी मैं जिद्द छुड़वाए मेरी मुझसे तुम्हारे पास माधव आया मैं ...(3)

द्रोणाचार्य सा लगाव मेरा दर्द दे मुझे यह झूठे लोगो से जुड़ाव मेरा यह लगाव दूर करो मेरी तुम्हारे पास माधव आया मैं...(4)

अश्वत्थामा सा बदला लेने की भावना अंदर मेरे ना ज्ञात मुझे मेरे शब्द के बाण का फिर भी चलाता मैं बदला लेने की भावना को दूर करो मेरे अंदर से तुम्हारे पास माधव आया मैं...(5)



गुरु मेरे परशुराम जैसे ज्ञान देते वो मुझे कर्ण सा कौंशल मेरा फिर भी रणभूमि मे मूल्यवान ज्ञान भूल जाऊ मैं तुम्हारे पास माधव आया मैं...(6)

अब लडते लडते मेरे कामनाओं से मेरी वासनाओं से थक चुका हूँ माधव मैं समझ नहीं आता क्या करू लगता है जीवन का त्याग कर दू मै अर्जुन सा आत्मसमर्पण करता हूँ तुम्हे माधव मैं बनो मेरे सारथी संभालो मेरी इंद्रियों की रथ को हार गया हूँ माधव मैं पुकारे यह भक्त तुम्हारा तुम्हारे पास माधव आया मैं...(7)

Dheerajsinh R. Yadav

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Diploma 3rd Sem









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