KATHAN

E-Magazine of UPL University of Sustainable Technology

UPL OpenAg™

UPL UNIVERSITY OF SUSTAINABLE TECHNOLOGY

Rotary Ankleshwar

Kathan
ज्ञानम् यजामहे।

Issue No. 71
December 2024

Ankleshwar Rotary Education Society

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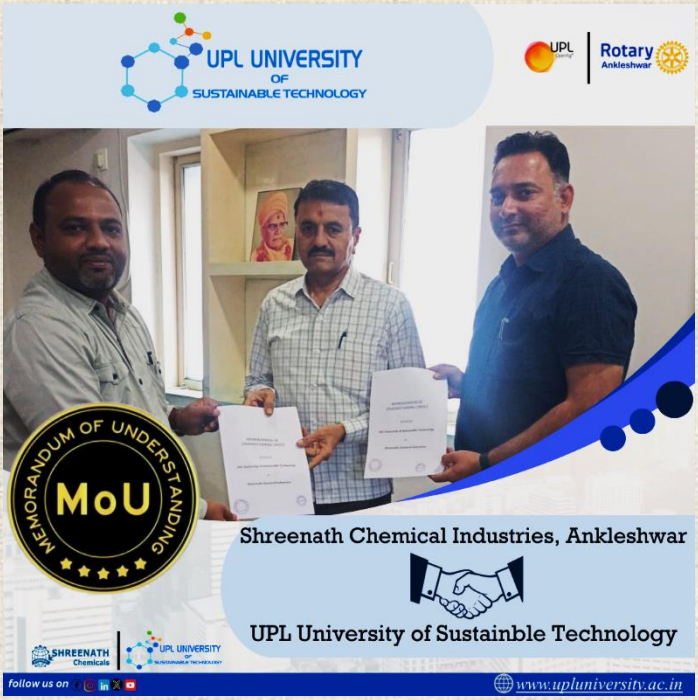
Contents

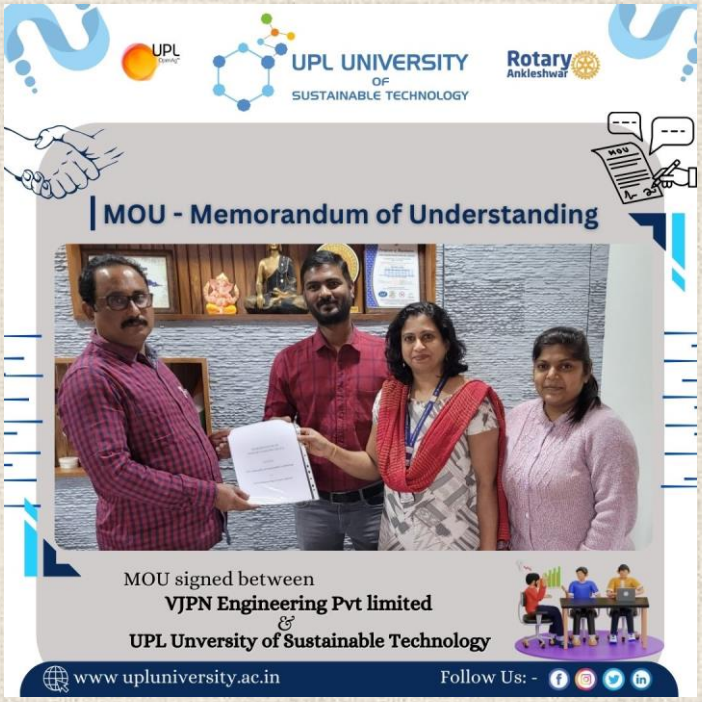
- MoU
- Outstanding Academic Achievements
- Technical Articles
- Faculty Achievements
- Placements
- Inside the University
- Upcoming Seminar
- Students' Corner
- Notification for Competitive Exam
- Admission Notice

MoU

“Alone, we can do so little; together, we can do so much.”

The SRICT- ISR, UPL University of Sustainable Technology has processed MOU between UUST & Shreenath Chemical Industries, and Snehal Dyes Industries, Ankleshwar. The MSH department of UUST signed an MoU with VJPN Private Limited, Ankleshwar.





MoU

“Alone, we can do so little; together, we can do so much.”

Mechanical engineering department has processed MoU between UUST and A K Transmission Industries.

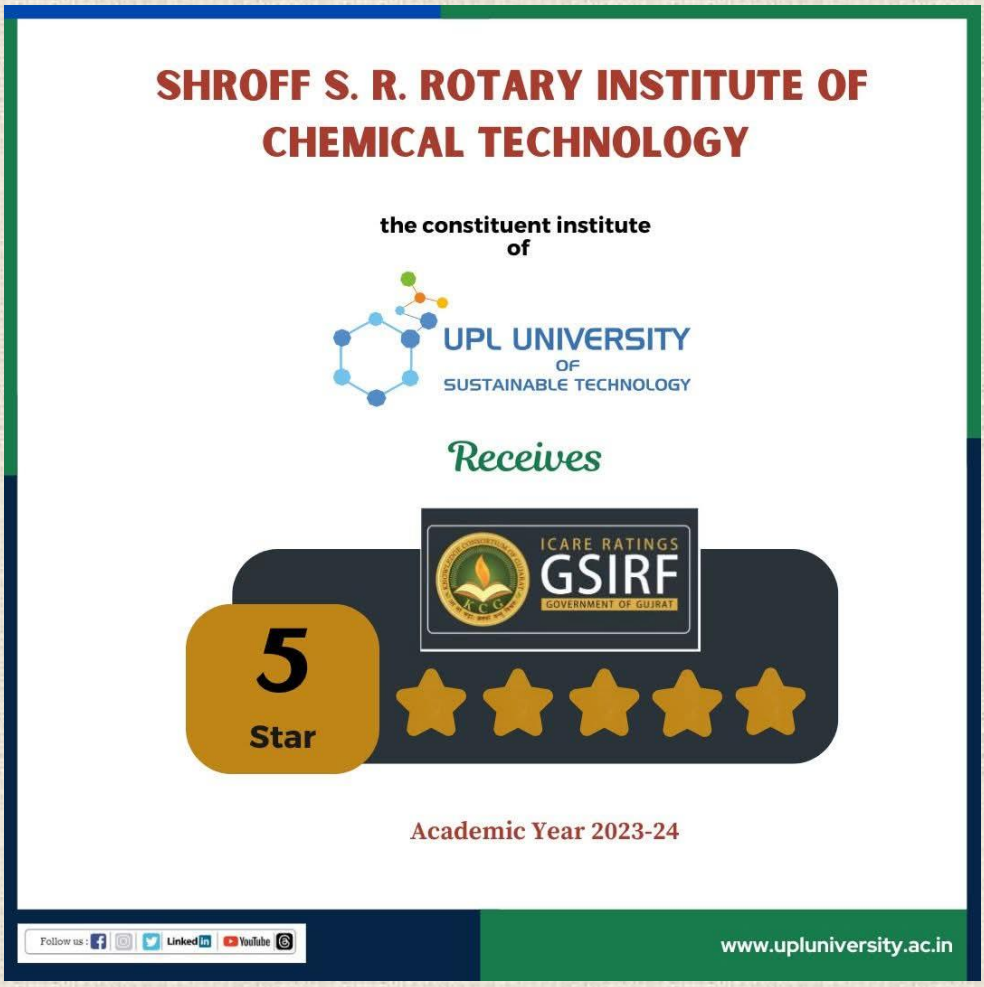
The Department of Computer Engineering facilitated the signing of an MOU between UPL University of Sustainable Technology and Innodel Technologies Pvt Ltd, Ahmedabad.

Outstanding Academic Achievements

SRICT, the constituent institute of UPL University of Sustainable Technology ranked 5 star by GSIRF.

We are proud to announce that **Shroff S R Rotary Institute of Chemical Technology** has achieved a **prestigious 5-Star ranking** in **Gujarat State Institutional Ranking Framework** (**GSIRF**) and we are among top 08 Engineering institutes of Gujarat. Last year we were 4 star, and now we have progressed, reflecting our elevated commitment to academic excellence, world-class faculty, cutting-edge research, and an inclusive, vibrant campus community.

Credit goes to our dedicated students, staff, and alumni for making this achievement possible. Here's to continuing to shine on the global stage!



Technical Article

Application of Artificial Neural Network in Chemical Engineering - Prediction of Biomass Pyrolysis Kinetics

Introduction:

Biomass is mainly lignocellulosic, carbon neutral material which possess a good amount of energy with CV in the range of 15-20 MJ/kg. biomass is therefore considered as a source for the generation of energy, fuels, and chemicals. Among the available technologies, Pyrolysis is more preferable due to its moderate operating temperatures and gives product in all three fractions (i.e. liquid, solid, gas) and promises better utilization of product streams compare to others. For the designing and upscaling of the pyrolysis process, knowledge of reaction kinetics is required. The Kinetics of biomass pyrolysis can be estimated by various systems, but thermogravimetric analysis (TGA) is the most used. TGA requires a lot of rigorous calculations, significant time and cost of the experiments. Hence model-based predictions are preferable to get primary knowledge of the process. Artificial Neural Network plays a wide role and has huge applications in the field of Chemical Engineering where estimation and predation of various aspects of the process like – rate, conversion, yield, kinetics, property etc., can be predicted. In the present work, ANNs are used to predict the kinetics for the biomass pyrolysis considering biochemical analysis of diversified biomass. ANNs consist of an Input node, hidden layer, and output layer. Biochemical Analysis of biomass is taken as an input of the ANN and kinetic parameters are taken as output. A total of 205 datasets of biochemical analysis are taken from the different literature. Training of neural networks is done with the help of NNTOOLS of MATLAB.

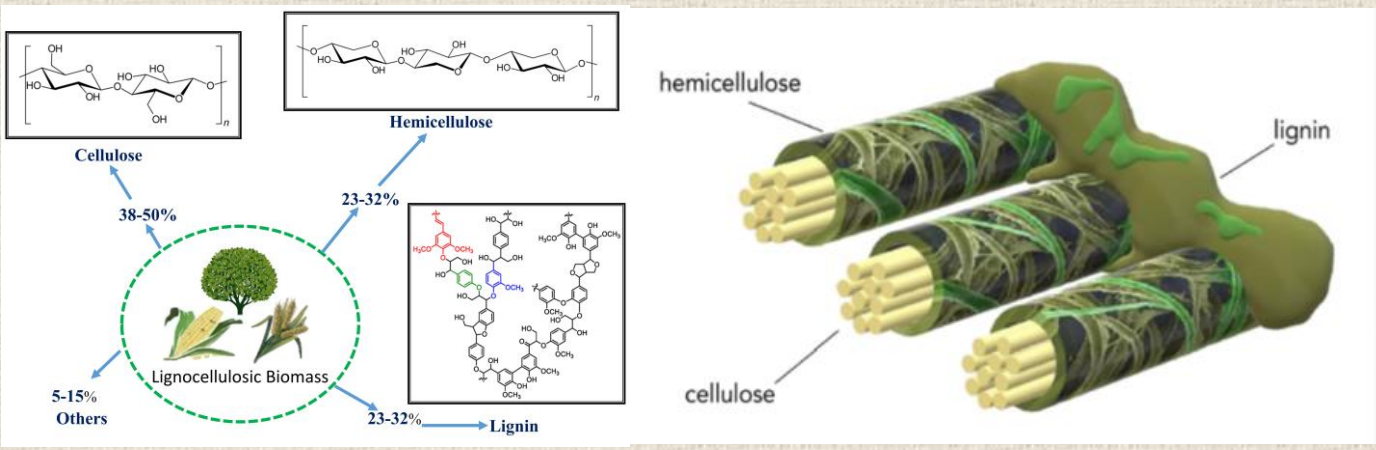


Figure-1: Biomass and its structure

Selection of Data:

The ANN model requires a lot of datasets for the training of neurons so it gets collected and get screened from different literature. There are 205 data of w% of biochemical analysis of different biomass has been collected from different published literature and provided as an input of the model.

Analytical method:

The pyrolysis of biomass is one kind of heterogeneous solid-state decomposition reaction in which macro molecular structures breakdown into smaller structures by thermal energy. The primary pyrolysis is represented by the following reaction scheme

$$Biomass \rightarrow volatiles + Char$$

$$\text{Rate} \quad \frac{d\alpha}{dt} = k(T)f(\alpha) \text{ ---- (01)}$$

$$\frac{d\alpha}{dt} = A\, exp\left(-\frac{E_a}{RT}\right) f(\alpha) \text{ --- (02)}$$

$$\frac{d\alpha}{dT} = \frac{A}{\beta} exp\left(-\frac{E_a}{RT}\right) f(\alpha) \text{ --- (03)}$$

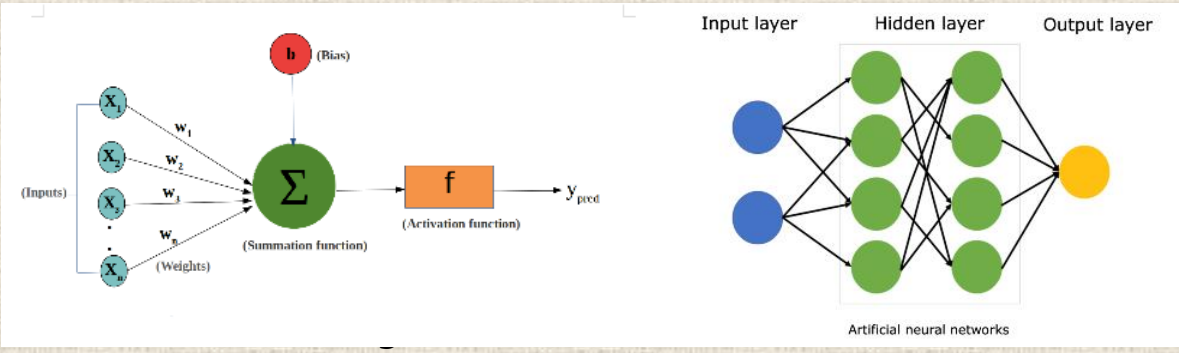
Equation (03) is used as a basis for estimation of kinetic parameters by Coats Redfern method.

$$\frac{\ln \frac{1}{n-1}[(1-\alpha)^{1-n}-1)}{T^2} = \ln\left(\frac{AR}{\beta E_a}\right) - \left(\frac{E_a}{RT}\right)$$

A plot of $\ln\left(\frac{g\,(\alpha)}{T^2}\right)$ versus $\left(\frac{1}{T}\right)$ gives a straight line from which the activation energy can be calculated. From the intercept, the corresponding value of pre-exponential factor is obtained. This has been done for all the 205 data sets which are further used in the development of the ANN models.

Development of ANN model:

An ANN is a layer parallel information processing structure that is composed of numerous neurons connected with weight link, passing signals one neuron to another. ANNs consist of input node, hidden layer, and output layer. From input node, input get sensed and multiply by its weight string and send it for the process. In hidden layer input has been processed with the help of activation function. Here Activation function used are combination of Tansign & purelin. After passing from activation function predicted output is given by model.

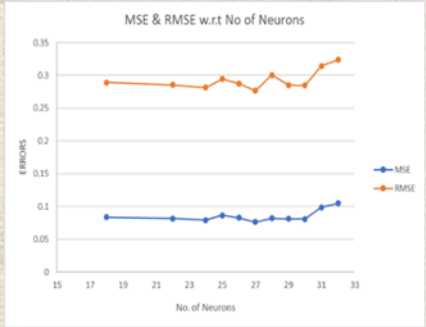


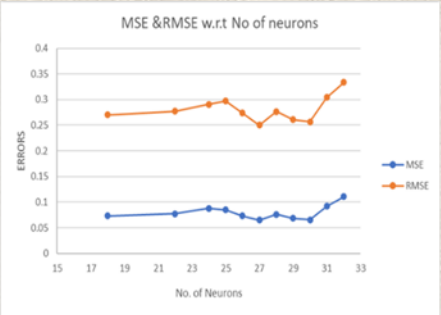
Technical Article

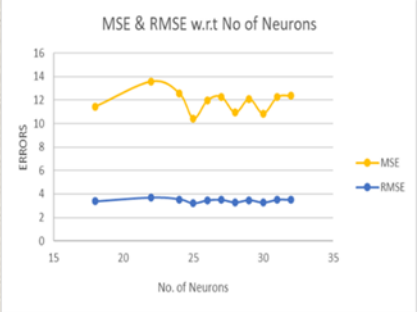
Selection of No. of neurons:

The no of neurons in hidden layer can be selected by the trial & error method. All the models were analyzed with one neuron and more neurons until the network performances reaches to a saturation level measured in terms of correlation coefficient. The network is trained for the different no of neurons and it has been observed that the network predicting the best result when neurons is 27 for the pre-exponential factor, order of reaction, Activation Energy.

Results:

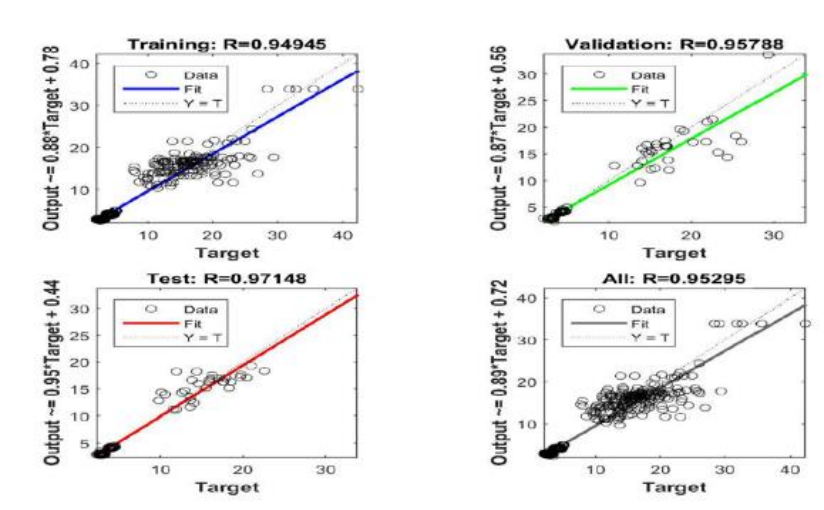






As we observe the plot we get the optimized no of neurons as it gets Min. error - 27 neurons

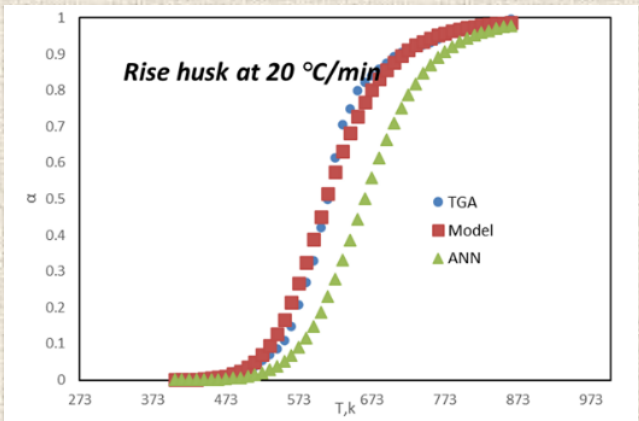
Performance, Parity plot & Error

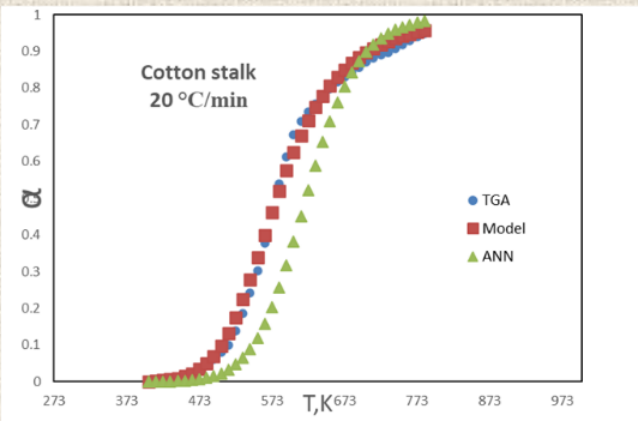


ERROR ANALYSIS			
	n	E	A
MSE	0.07641	0.0652623	12.281103
RMSE	0.2764237	0.2554648	3.5044404
RRMSE	9.3364772	6.0948908	20.903711
MAE	0.0001259	0.4240231	0.5010507

Technical Article

Validation:





Conclusion:

In the present work, ANN model was developed to predict the pyrolysis kinetic parameters (A, Ea and n) based on biochemical analysis of different biomass. A total of 205 datasets with diverse range of biomass feedstocks, The biomass analysis and TGAs were considered in the development of ANN model. Proposed model is found to be very useful in the predicting kinetic parameters closely with the correlation coefficients value (R^2 ~ 0.95). The kinetic parameters obtained the model are found in good accordance with the kinetics estimated by Analytical method. It also allows the prediction of the thermal behaviours of the biomass. These models can be utilized to obtain the pyrolysis kinetics for new biomass feedstocks.

Mr. Vidhit Gandhi

and

Dr. Hemant Kumar Balsora

Mr. Vidhit Gandhi

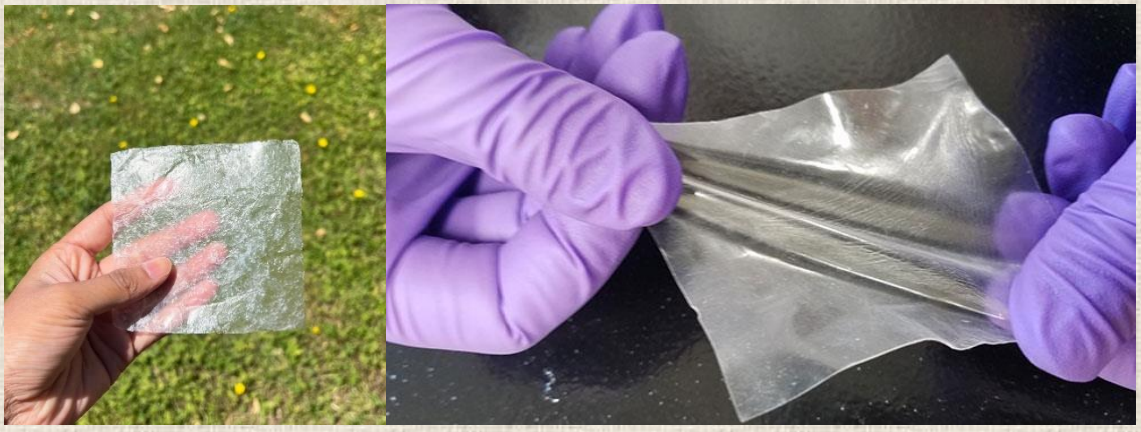
BE 7 Sem Chemical Engineering

Department of Chemical Engineering

Technical Article

Bioplastics: Microbial Solutions to Plastic Pollution

The environmental crisis caused by plastic pollution has reached alarming levels, with over 300 million tons of plastic produced globally every year. A substantial portion of this plastic waste accumulates in landfills and oceans, disrupting ecosystems and endangering wildlife. Unlike biodegradable materials, conventional plastics are petroleum-based and take centuries to decompose, breaking down into microplastics that persist in the environment and infiltrate food chains, posing severe health risks. In response to this global challenge, bioplastics have emerged as a promising alternative. These sustainable materials, derived from renewable resources and microbial processes, offer a biodegradable solution to plastic pollution.



Bioplastics are materials produced from renewable sources such as agricultural waste, glycerol, and even industrial effluents. They are synthesized by microorganisms, including Pseudomonas, Ralstonia, and Alcaligenes, which generate polymers like polyhydroxyalkanoates (PHAs) and polylactic acid (PLA).

Technical Article

These polymers mimic the properties of synthetic plastics but are environmentally friendly, biodegradable, and derived from sustainable processes. This microbial ingenuity offers a pathway to replace conventional plastics across a range of applications while mitigating their ecological impact. The production process of bioplastics involves several critical steps. Initially, carbon-rich feedstocks such as sugarcane molasses, cornstarch, or wastewater are fed to microbes. These substrates are metabolized by the microorganisms, leading to the synthesis of polymer precursors.

Under nutrient-limited conditions, such as reduced nitrogen or phosphorus availability, microbes accumulate biopolymers as intracellular granules, functioning similarly to how humans store fat. These granules are subsequently harvested, extracted, and purified to produce bioplastics suitable for various industrial applications.

Bioplastics have already found applications across diverse industries, showcasing their versatility. In the packaging industry, biodegradable films and containers are gradually replacing single-use plastics, with PLA being a popular choice due to its transparency and durability. In the healthcare sector, bioplastics are being utilized for sutures, drug delivery systems, and biodegradable implants, addressing both medical and environmental concerns. Similarly, agriculture has embraced bioplastics for biodegradable mulch films and seed coatings, reducing the ecological footprint of farming practices. Another noteworthy application is in 3D printing, where PLA, derived from microbial fermentation, has become a preferred material for creating eco-friendly prototypes and products. A detailed comparison between conventional plastics and bioplastics highlights the environmental and functional advantages of the latter.

Technical Article

Traditional plastics are derived from fossil fuels, are non-biodegradable, and contribute significantly to environmental pollution. In contrast, bioplastics are made from renewable resources, decompose naturally, and have a significantly lower carbon footprint. Despite these benefits, the higher production cost of bioplastics remains a barrier to their widespread adoption. However, ongoing research and technological advancements are steadily addressing this challenge.

The development of bioplastics is a multidisciplinary effort, involving contributions from microbiology, chemistry, and engineering. Microbial strains are being genetically engineered to enhance their polymer production capabilities, while chemical scientists are working on additives to improve the thermal stability and mechanical strength of bioplastics. Engineers are designing innovative bioreactors to optimize large-scale production processes, ensuring cost efficiency and scalability.

Recent advancements in bioplastics research have focused on feedstock diversification, improved microbial strains, and the integration of nanotechnology. The use of inexpensive substrates, such as cellulose waste and food processing byproducts, has significantly reduced production costs. Genetic engineering tools like CRISPR have enabled the modification of microbes to produce higher yields of biopolymers with enhanced properties. Additionally, combining bioplastics with nanomaterials has resulted in improved mechanical and thermal properties, making them suitable for high-performance applications. Bioplastics have the potential to revolutionize industries by providing a sustainable alternative to conventional plastics. However, challenges remain, including high production costs, scalability issues, and performance gaps compared to traditional plastics.

Technical Article

The transition from lab-scale to industrial-scale production requires significant investment and infrastructure development. Moreover, certain bioplastics may lack the durability or flexibility required for specific applications, necessitating further research and development. Despite these challenges, the global market for bioplastics is experiencing rapid growth. Driven by increasing consumer demand for sustainable products and supportive government policies, the market is projected to grow from $10.5 billion in 2021 to $29.7 billion by 2030. Regions like North America, Europe, and Asia-Pacific are leading this growth, with significant investments in research and production facilities. The shift toward bioplastics represents not only an environmental imperative but also an economic opportunity for industries to innovate and align with sustainability goals.

The environmental benefits of bioplastics extend beyond their biodegradability. By replacing petroleum-based plastics, bioplastics reduce greenhouse gas emissions and reliance on fossil fuels. Furthermore, the production of bioplastics from agricultural and industrial waste contributes to waste valorization, creating a circular economy. This dual advantage of reducing plastic pollution and lowering carbon footprints underscores the transformative potential of bioplastics. Governments and policymakers play a crucial role in accelerating the adoption of bioplastics. Incentives such as subsidies, tax benefits, and stricter regulations on conventional plastics can drive industries to invest in sustainable alternatives. Education and awareness campaigns are equally important to inform consumers about the environmental impact of their choices and the benefits of bioplastics. As bioplastics gain momentum, interdisciplinary research and innovation will continue to address existing challenges.

Technical Article

The focus on developing cost-effective production methods, enhancing material properties, and scaling up industrial applications is paving the way for a greener future. By combining the expertise of microbiologists, chemists, engineers, and policymakers, bioplastics can fulfill their promise of replacing conventional plastics and mitigating plastic pollution. Therefore, bioplastics represent a harmonious blend of science and sustainability. Their development exemplifies how microbial ingenuity and technological advancements can address pressing environmental issues. As industries and consumers embrace this eco-friendly alternative, bioplastics are poised to transform the way we produce and use materials, contributing to a cleaner, healthier planet for future generations.

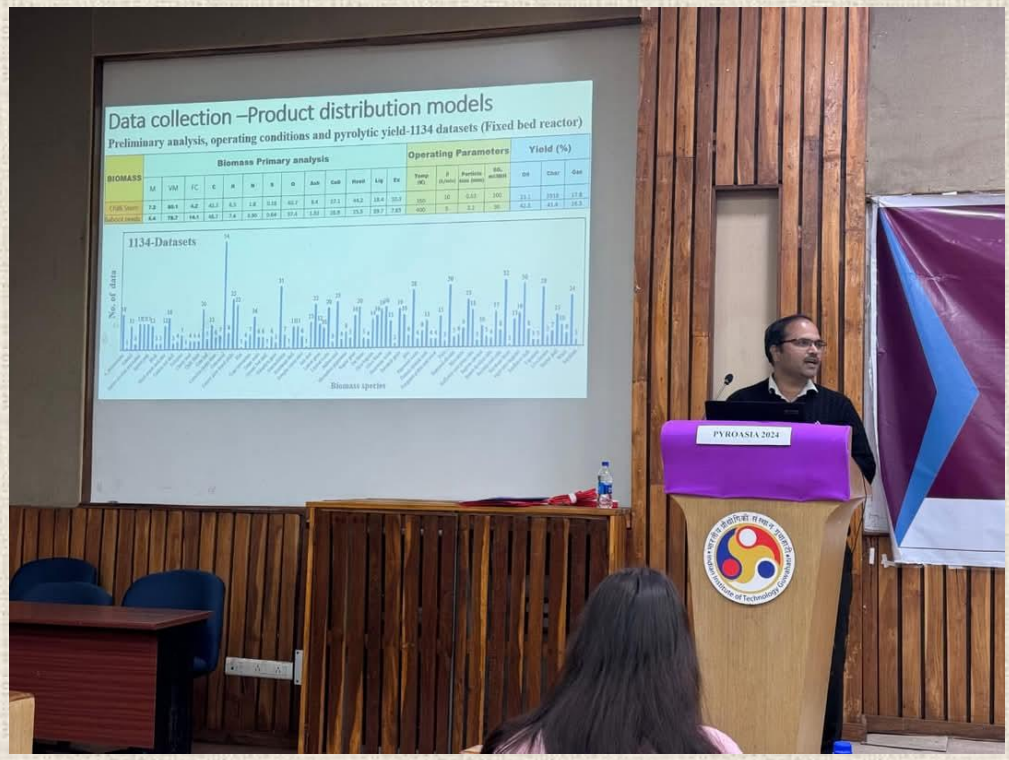
Dr. Prashantkumar S. Arya

Assistant Professor

SRICT- Institute of Science & Research

Faculty Achievements

Dr. Hemant Balsora, received the best oral presentation award (under the technical session modelling in pyrolysis) at the 4th International Symposium on Analytical and Applied Pyrolysis, which was held at IIT Guwahati. He delivered a research presentation on " Predication of Biomass Pyrolysis Products Yield Using Artificial Neural Network Based Machine Learning Models.

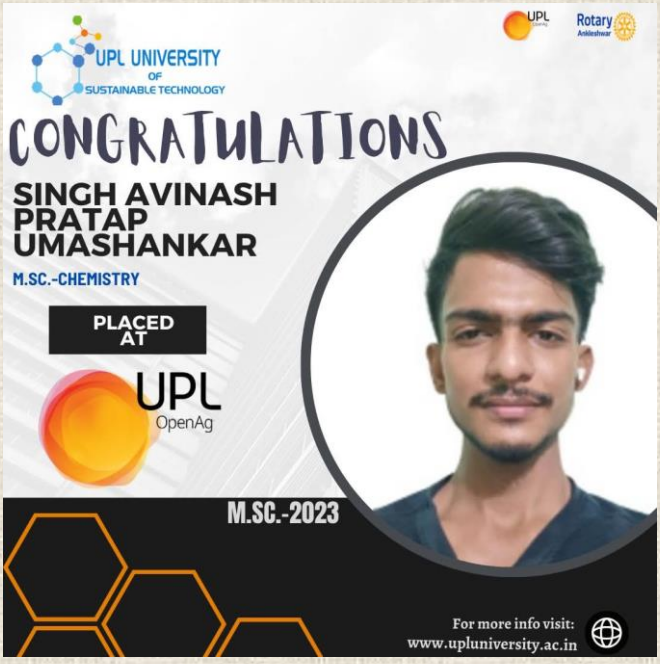


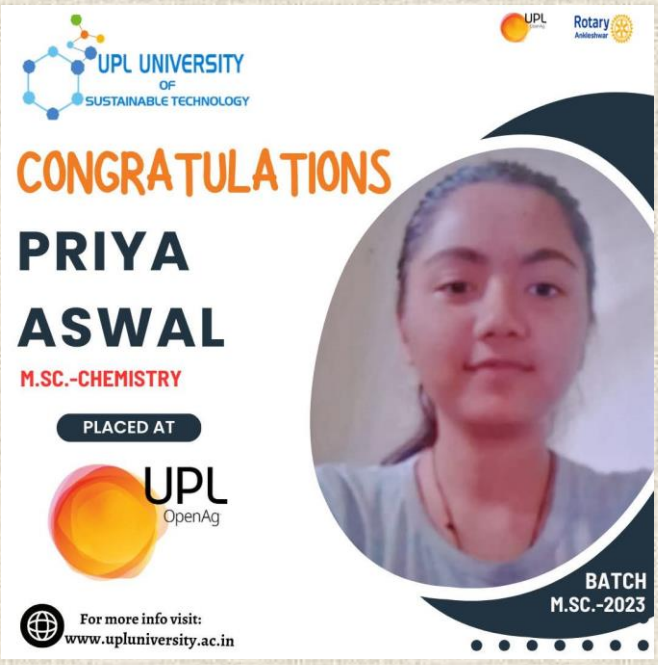
Faculty Achievements

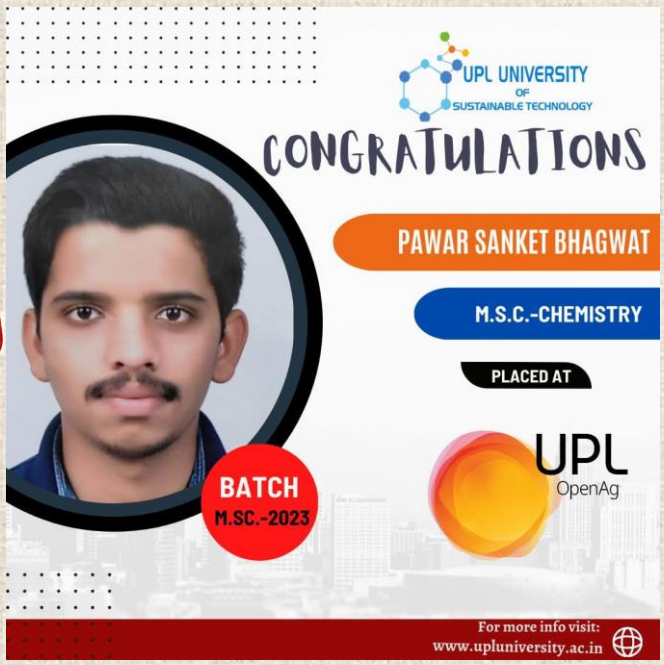
Dr. Mehulkumar L. Savaliya, Assistant Professor, SRICT-ISR, has delivered an invited talk on “Named Reactions in Chemistry” in a 15 days GSBTM sponsored intensive “Crash Workshop” organized by UG-CBC, Department of Biotechnology, Government Science College, Vankal on 30th December, 2024.

Placements

With immense cheer, we are delighted to announce that **DOBARIYA SAHIL BHARAT BHAI**, **SINGH AVINASH PRATAP UMASHANKAR**, **PRIYA ASWAL**, and **PAWAR SANKET BHAGWAT** of M.Sc.-Chemistry (3rd Sem), Batch 2023–2025 have been successfully placed in UPL LTD. UPL University of Sustainable Technology congratulates them for securing a job through 'WeNayak'- T&P Cell of UPL University and Wishes them a bright Career ahead.







Inside the University

Chemical Technology Department of UPL University of Sustainability Technology conducted one day refresher course entitled "Innovation in Pharmaceutical Technology" on 27th December 2024 that comprised a unique amalgamation of lecture sessions of eminent exponents both from elite institution's and corporate industries.

Prof. Shreerang Joshi Head, Department of Pharmaceutical Science Technology, Dr. Nitin Arote, Associate Professor, Department of Pharmaceutical Science and Technology from ICT Mumbai and Mr. G.M. Khandekar, Pharma Consultant and Visiting Professor, ICT Mumbai presented their lectures. Ms Sunitha kadkada, Head- Quality Compliance from Zentiva Pvt Ltd. Ankleshwar delivered a lecture on the importance of Quality Compliance, Dr. Naveen Sharma, Head of Pharmacology, Amity University presented his lecture online. Mr Jagdish Shah , Chief Consultant of Pharma Consultants Group Companies elucidated his lecture on the Importance of ZED, GMP and ISO certification. Mr Angiras Shukla, Secretary, ARES was the Chief Guest of the event and Provost-Prof Dr. Shrikant J Wagh delivered the welcome speech. Dr. Nilesh Badgujar, Head, Dept of Chemical Technology and Convenor of the Refresher course elucidate the Purpose of Refresher Course. Mr. Apurba Chakrabarty, Assistant Professor and Program Coordinator was given the Vote of Thanks. All Deans, Registrar, Departmental Heads, Faculty and Staff members were present at the event. The audience included industry professionals from Lupin Ltd, Glenmark, Esskay iodine, UPL Ltd., Aarati ind., Raks Pharma and our students. The refresher course offered unique exceptional learning experiences among the Total 40 participants were registered in the refresher course.

GLIMPSES

"Innovation in Pharmaceutical Technology-2024"

"Innovation in Pharmaceutical Technology-2024"

GPS Map Camera
Vataria, Gujarat, India
Block No: 402, Ankleshwar - Valia Road, Vataria, Gujarat 393135, India
Lat 21.566057° Long 73.117846°
27/12/24 10:56 AM GMT +05:30
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Upcoming Seminars

Keyhighlights:

This online conference will disclose Exploring Analytical Excellence: Industry-Academic Online Training for Cutting-Edge Techniques to bridge the knowledge gap and equip participants with the theoretical foundations and practical insights needed to excel in these methodologies.

Upcoming Seminars

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Convenor

Ms. Mital Patel
HOD, Dept. of Computer Engg. & Information Technology

Program Coordinator

Ms. Rupali Attarde
(rupali.attarde@upluniversity.ac.in)
Assistant Professor, Dept of Computer Engg. & IT

Organizing Committee

Ms. Prachi Raol
Mr. Awadh Singh
Mr. Harsh Parmar

About The University

UPL University of Sustainable Technology, established by the Ankleshwar Rotary Education Society (ARES), aims to position Gujarat and India as a leading educational hub. The university's journey began in 2011 with the founding of Shroff S.R. Rotary Institute of Chemical Technology (SRICT), which offers undergraduate engineering courses approved by AICTE and affiliated with GTU. Known for its strong teaching practices, industry connections, and successful job placements, the university has produced numerous award-winning students. It also provides various services to industries, including environmental and energy audits, R&D, and tailored training programs. UPL University offers a range of programs in Chemical, Computer, Information Technology, Mechanical, Electrical, and Environmental Engineering at diploma, undergraduate, postgraduate, and doctorate levels.

About The Department

Computer Engineering & Information Technology Department of SRICT at UPL University of Sustainable Technology covers a wide spectrum of topics in computer networking, operating systems, Artificial Intelligence, Machine learning, Software Testing and applications, compiler design, system programming, software engineering, distributed systems, various packages and software's like ORACLE, JAVA, .NET etc.

A Five-Day
Faculty Development Program (FDP) / Training
on

AI and Machine Learning: Foundations, Advances and Future Trends

(Online Mode)
Under the Banner of IQAC
20 - 24 January, 2025
Organized by,

Department of Computer Engineering & Information Technology
UPL University of Sustainable Technology
Block No. 402, Ankleshwar-Valia Road ,
Ta: Valia , Dist: Bharuch Pin– 393135

Valuable Speakers

Dr. Bindu Krishnan
Senior Statistician, Data & AI, IBM
Kochi

Dr. Devang Pandya
Head of Information Technology,
Ganpat University

Dr. Imon Mukhrjee
Professor (Gr-1), Former Faculty Coordinator & Faculty in-Charge, Academics, IIIT Kalyani

Dr. Swati Jain
Associate Professor, Nirma University, Ahmedabad

Dr. Zankhana Shah
Associate Professor BVM
Engineering College, VVnagar

Dr. Narendra Chuahan
Professor & Head Department of Information Technology A D Patel Institute of Technology, Anand

Dr. Kavita Sonawane
Department of Computer Engineering
St. Francis Institute of Technology
Engineering college Borivali West Mumbai

A Five-Day
Faculty Development Program/ Training
on
"AI and Machine Learning: Foundations, Advance and Future Trends."
20 - 24 January, 2025

Overview

This Faculty Development Program (FDP) offers a deep dive into AI and Machine Learning, combining foundational concepts, advanced techniques, and hands-on learning. Participants will explore cutting-edge technologies like Quantum Machine Learning and Reinforcement Learning while addressing AI ethics and emerging trends. The program equips attendees with practical skills to advance research and education.

Topics to be covered

- **Day 1** - Introduction to the Fundamental Concepts of Machine Learning and Deep Learning.
- **Day 2** - Advanced Algorithms for Machine Learning and Optimization of Models.
- **Day 3** - Neural Networks and an Overview of Deep Learning Architectures.
- **Day 4** - Introduction to Quantum Machine Learning (QML) and its potential advantages.
- **Day 5** - Ethical Considerations in Artificial Intelligence, and the Future of AI.

(Per day two sessions will be conducted & Timing :-10 am to 1 pm and 2 pm to 5 pm)

E - Certificates will be provided to all participants

Registration details

- **Industry Person: ₹750/-**
- **Academics/ Scientists: ₹500/-**
- **Research Scholars: ₹400/-**
- **UG & PG Students: ₹300/-**
- **Foreign Delegates: $ 20**

How to Apply

Registration is mandatory on following link :
https://forms.gle/DsRkyttD5mmvSJox8

(QR code for registration)

Online Payment Details

Account Name: UPL University of Sustainable Technology
Account No.: 59110016072011
Bank Name: HDFC Bank, Ankleshwar
IFSC Code: HDFC0000255

Important Dates

Last Date of Registration- 15.01.2025
List of Eligible Candidates: - 16.01.2025
(via Email)

.upluniversity.ac.in

Upcoming Seminars

One Week Online Faculty Development / Training Program On

"Cutting-edge Analytical Techniques to Support Global Industries with A Visit to Sophisticated Analytical Lab"

January 20-24, 2025

Organized by

Department of Mathematics, Science & Humanities - SRICT

UPL University of Sustainable Technology
Block No. 402, Ankleshwar-Valia Road, Ta: Valia, Dist.: Bharuch
Pin– 393135
Web: https://www.upluniversity.ac.in/

Executive Committee

Chief Patron
Mr. Ashok A Panjwani
President, UPL University

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Head, Department of Mathematics, Science & Humanities

Coordinator

Mr. Anil Mali,
Lecturer, Department of Mathematics, Science & Humanities

About FDP/ Training Program

A Faculty Development Program (FDP) or training program focusing on analytical techniques in chemistry, such as IR (Infrared Spectroscopy), NMR (Nuclear Magnetic Resonance), GC (Gas Chromatography), and HPLC (High-Performance Liquid Chromatography), typically aims to enhance the skills and knowledge of participants in these essential analytical methods.

Objectives:
To Enhance the technical skills of participants in using analytical techniques.
To Foster a deeper understanding of the theoretical concepts behind each method.
To Encourage collaboration and sharing of best practices among educators and researchers. Such programs are beneficial for faculty members, researchers, and industry professionals looking to stay updated on the latest analytical techniques and applications in chemistry.

About Department of Mathematics, Science & Humanities

The Department of Mathematics, Science and Humanities-MSH plays a unique and distinctive role in an institute where the ethos of science and technology prevails. It is believed that engineering and science are, by their very nature, humanistic and socially derived enterprises.

The aim of MSH is to enrich all skills, making students capable for effective and accurate communication which is genuinely useful for the students of engineering and technology. As the world is changing with the challenges facing us on a global level there is a new need for organization to integrate technical and business skills to solve these difficult problems. In the complex competitive word of technology driven industry, skilled engineers who understand the essential principles of business have tremendous competitive advantages.

About UPL University of Sustainable Technology

UPL University of Sustainable Technology is the first private University of Sustainable Technology of Gujarat and India. University's vision is to be a world class university to impart knowledge, quality education and develop leaders required by allied industry. Shroff S R Rotary Institute of Chemical Technology (SRICT) was affiliated to GTU since 2011, is now affiliated to "UPL University of Sustainable Technology" from academic year 2021-22. UPL University of Sustainable Technology offers Diploma Engineering, Bachelor of Engineering, and Master of Engineering under Shroff S.R. Rotary Institute of Chemical Technology and. B.Sc. Chemistry. Microbiology & M.Sc. Chemistry under Institute of Science & Research from academic year 2021-22. The University also provides education in Process Safety, Environmental Sustainability, Automation & Robotics and PhD in various streams of science and engineering.

Participants

Faculty members, Professional from Industry, Researchers and Students. Participants will receive e-certificate upon successful completion of the FDP/Training.

How to apply

The participants are required to fill-up the personal, institute details should and attach screenshot of payment in the Google form https://forms.gle/LU73zeFvaXyaJ4147 on or before - 17th January 2025.

FDP Schedule

Date	Program
20/01/2025 2.00pm to 4.30pm	**Inauguration Session (2.00pm to 2.30pm)** "Evolving strategies for impurity profiling-from organic impurities to picogram level quantification of nitrosamines". **Mr. Anirban Roy Chowdhury** Senior General Manager in **Amneal Pharmaceuticals**
21/01/2025 2.30pm to 4.30pm	Introduction & Applications of Nuclear Magnetic Resonance **Dr.Amol Manake** Pratap College Amalner, **North Maharashtra University Jalgaon** ,Maharashtra,India
22/01/2025 2.30pm to 4.30pm	Introduction to Infrared Spectroscopy & its Applications **Dr. Anjali Bishnoi** Associate Professor (Department of Chemical Engineering) **L D College of Engineering, Ahmedabad,** Gujarat, India
23/01/2025 2.30pm to 4.30pm	Overview of HPLC/UPLC and Mass Spectrometry **Mr. Divyeshkumar Pravinbhai Patel** Sr. Technical support specialist in **Waters India Pvt. Ltd.** Ahmedabad, Gujarat – 380054. India
24/01/2025 2.30pm to 4.30pm	Analytical Lab Visit

About Speakers

Mr. Anirban Roy Chowdhury

Mr. Anirban Roy Chowdhury is working as Senior General Manager in Amneal Pharmaceuticals for the last 7 years. He is heading the Analytical research and development functions of the solid Oral unit as well as critical function of Inhalation functions.

He is having more than 24 + years of experience in the industry. Previous to Amneal he has worked in companies like Piramal, Torrent, Strides-Mylan, and Wyeth- Pfizer. His expertise includes advanced characterization and quantifications using techniques like Chromatography, Mass, NMR, X-ray Fluorescence, Quality by design, and Design of experiments.

Dr.Amol Manake

Dr Amol P. Manake is working as Assistant Professor in department of Chemistry, Pratap College (Autonomous), Amalner, Maharashtra. He completed his PhD in Chemistry from KBC North Maharashtra University, Jalgaon. His area of expertise is Green Chemistry and Sonochemistry. Core area includes Organic Chemistry. He has 13 years of experience in teaching at UG and PG level.

Dr. Anjali Bishnoi

Dr Anjali Bishnoi is Associate Professor (Department of Chemical Engineering) at L D College of Engineering, Ahmedabad, Gujarat, India. She obtained PhD in Organic Chemistry from Indian Institute of Technology (IIT) Delhi in 2009. She has seven years of research experience and 15 years of teaching experience at UG & PG levels.

Her research area includes experimental and theoretical aspects of Organic Chemistry with strong emphasis on synthesis & characterization of organic compounds, preservation of fruits and vegetables (development of coatings, scale-up of products etc) and polymeric nanocomposites. She has various research publications & book chapters in peer reviewed international journals. She is registered as PhD Supervisor at Gujarat Technological University and also guiding research scholars. She is associated with various technical bodies like ICC, IRI etc. She has travelled abroad for participation in international conferences with full and partial sponsorship and earned various awards

Mr.Divyeshkumar Pravinbhai Patel

Divyeshkumar Pravinbhai Patel is working as a Sr. Technical support specialist in Waters India Pvt. Ltd. Ahmedabad, Gujarat – 380054. India Since 2021. He completed Master of Pharmacy in Pharmaceutical Quality assurance in 2011.He has worked in Zydus cadila, Glenmark, Alkem and Amneal (from 2012 to 2021).

Registration Fees:

Industry Delegates: Rs. 3000/-
Faculty:- Rs. 1000/-
Research Students:-Rs. 750/-
UG/PG students:- Rs. 500/-
Last Date of Registration: 17/01/2025

For further details, contact

Mr. Anil Mali (9765537927)
anil.mali@upluniversity.ac.in

Bank Details for online payment:
Account name: UPL University of Sustainable Technology
Account No. 59110016072011
Bank Name: HDFC Bank, Ankleshwar
IFSC Code: HDFC0000255

Students' Corner

Photography by-
Het Bhatt
(M.Sc. Sem 1)

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

Notification for Competitive Exam

Important Dates:

Commencement of the Online Application Process for OCES/DGFS-2025:

2nd January 2025

Last date for Registration for Online Application:

26th January 2025

Online Examination:

8th & 9th March 2025

(https://www.barcocesexam.in) for updates

Admission Notice

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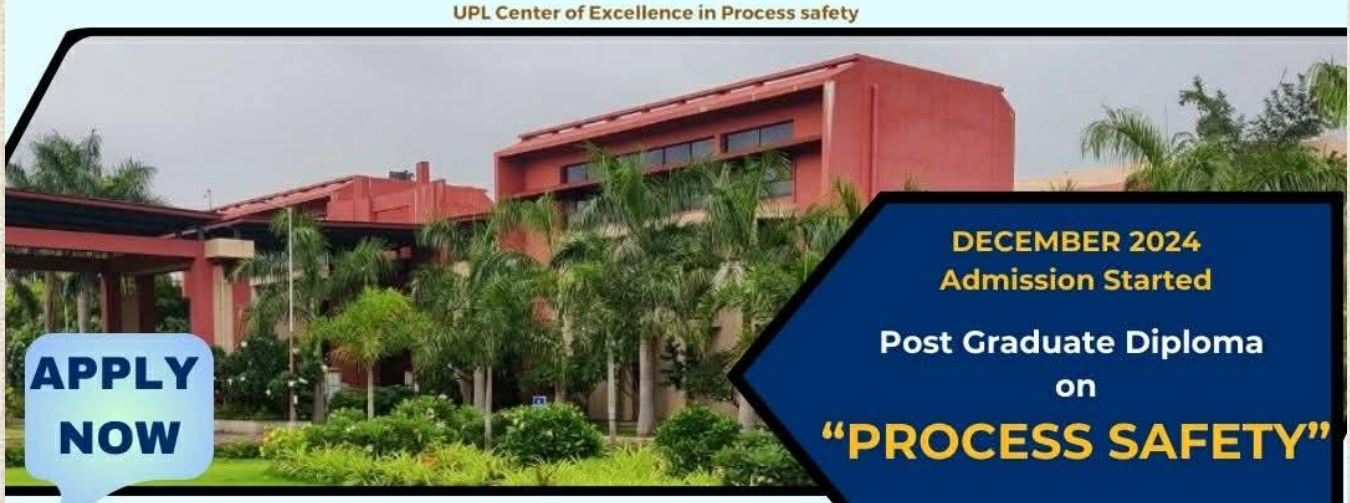

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1. Core Concepts of Process Safety
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3. Reaction hazard assessment
4. Case Studies and Practical Applications
5. Hazard Identification and Risk Analysis (HIRA)- Through techniques like
   - HAZOP (Hazard and Operability Study),
   - FMEA (Failure Mode and Effects Analysis),
   - Bow-Tie Analysis,
   - Quantitative Risk Assessment (QRA) methods and
   - Layers of Protection Analysis (LOPA).

For more detail scan and read information

MORE INFO

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Admission Notice

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- Cyber Security awareness, need, system architecture, related policies.
- Industrial data communications in control systems.
- field instrumentations & understanding of pneumatic systems.
- Instrumentation, Automation and Robotics and its application in one's own area of work.

MORE INFO

Dr. Jalpa Thakkar, Associate Professor and Head
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