



Enviro Buzz

SEPTEMBER 2024

VOLUME: 1

ISSUE: 1

MONTHLY NEWSLETTER

An Insight into the Department of Environmental Science and Engineering, Exploring Key Events, Research Highlights, and Sustainable Initiatives – September 2024 Issue.

Lets amplify the vital conversations surrounding our planet and its ecosystems, while reminding us of our collective responsibility towards environmental preservation and sustainable living.

HIGHLIGHTS

Celebrating **World Ozone Day 2024**: Advancing Climate Action and Strengthening Global Efforts for a Greener, Healthier Tomorrow!

Cultivating Green Spaces: A Step Towards Environmental Harmony with '**Ek Ped Maa Ke Naam**' Plantation Drive.

Honoring Our Guiding Lights: Students Celebrate **Teacher's Day** on 5th September with Gratitude and Joy. A Tribute to the Mentors Who Shape Our Future!

Driving Innovation: Ongoing **R&D and Consultancy Projects** Totaling ₹101.66 Lakhs with Industry Leaders like Adani, BCCL, Hindalco, and Lloyds.

Editorial Board

Prof. Alok Sinha, HOD/ESE

Prof. Sunil Kumar Gupta, Professor (HAG)/ESE

Prof. Suresh Pandian, Associate Professor/ESE

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Dr. Avantika Chandra, Information Officer/EIACP(PC-RP)

Mr. Durga Das Chandra, IT Officer/EIACP(PC-RP)

Ms. Supriya Bistu, DEO/EIACP(PC-RP)

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MESSAGE

from The

HOD's Desk

Dear Readers,

It is with great enthusiasm that I introduce the inaugural edition of "Enviro Buzz", the monthly newsletter from the Department of Environmental Science and Engineering, IIT (ISM) Dhanbad. "Enviro Buzz", meaning "Voice of the Environment", serves as a platform to amplify the vital conversations surrounding our planet and its ecosystems, while reminding us of our collective responsibility towards environmental preservation and sustainable living.

Through this newsletter, we aim to share the latest developments, research, and initiatives of our department, contributing to the global discourse on environmental sustainability. Each edition will provide insights into pressing environmental challenges, ongoing projects, and success stories that inspire positive action while fostering a deeper understanding of the challenges and solutions in environmental science and engineering.

As we reflect on the significance of September, marked by events such as World Ozone Day, we are reminded of the urgent need for collective efforts to combat climate change, conserve natural resources, promote sustainable practices, and protect our planet. "Enviro Buzz" aspires to be a source of knowledge and inspiration, encouraging readers to engage in sustainable practices and drive impactful change. Through "Enviro Buzz" monthly newsletter, we aspire to connect with stakeholders, students, researchers, and the broader community, creating a platform for meaningful dialogue and impactful contributions towards a greener future.

We look forward to your active engagement and valuable feedback as we embark on this exciting journey together. Let 'Enviro Buzz' resonate with the general public and stand as a testament to our commitment to a healthier planet for future generations.

Thank you & Warm regards.

PROF. ALOK SINHA

Professor and Head,
Department of Environmental
Science and Engineering,
Indian Institute of Technology (ISM)
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ABOUT THE DEPARTMENT OF ESE

The Department of Environmental Science and Engineering (ESE) was created out of the existing Centre of Mining Environment (established in 1987) at Institute in June 2007 with the commencement of a regular B.Tech Degree in Environmental Engineering under IIT-JEE (first of its kind offered by any national institute). The Department also offers a regular M.Tech program (since 1991) and PhD program in Environmental Science & Engineering. The students of the Department have been well received by the industries like CIL, BCCL, ECL, CCL, NCL, MCL, SECL, CMPDIL, WCL, SCCL, Sterlite, HCL, HZL, NALCO, BALCO, NTPC, L&T, and many other esteem companies along with regulatory authorities like MoEF&CC, CPCB, SPCBs, Research Organizations (CSIR Labs, CIMFR, RRLs) & academic institutes (IITs, NITs etc.), Consultancy Organizations & NGOs. The department is equipped with sophisticated equipment to cater for the needs of research. The Department is conferred with ISO 9001 and OHSAS 18001 Certification and Labs are accredited by CPCB.

The **Environmental Information, Awareness, Capacity Building and Livelihood Programme (EIACP)** Centre (erstwhile, ENVIS-Environmental Information System) was established in 1991 by the MoEF&CC, GOI. The subject area of the Center is "Environmental Problems of Mining". The Centre focuses on Collection, Collation, Storage, Retrieval and Dissemination of environmental information related to its subject area and on providing that information to decision makers, policy planners, scientists, engineers, researchers, students etc all over the country. The Centre publishes Quarterly Newsletters, monthly e-Newsletters and Monographs. The Centre celebrates world important days organizes various events, competitions, etc and helps in spreading awareness among the masses. The Centre also conducts GSDP in Air Water Pollution and Waste Management courses and MoEF&CC Sponsored Internship Programs. The centre has been Graded A since 2013-14 and awarded the Best Performing EIACP Centre in the East Zone under the Regional category awards in the year 2024. (Website: www.ismenvis.nic.in/)

Coordinator: **Prof. Alok Sinha.**

Co-coordinator: **Prof. Suresh Pandian E.**

The **Key Resource Centre (KRC)** was awarded to Department of Environmental Science & Engineering in the year 2014 by Ministry of Jal Shakti, Department of Drinking Water and Sanitation, GOI, New Delhi under the scheme of National Rural Drinking Water Programme (NRDWP). The mission of the KRC is to organize various training programme / workshops and exchange of ideas from different stakeholders in the field of Water & Wastewater Engineering and Management. The centre has carried our training in the following topics/subject areas: Low-cost treatment method for fluoride and Arsenic contaminated groundwater, Greywater Management in the Rural Area.

Coordinator: **Prof. Brijesh Kumar Mishra.**

The **Centre for Water Resource Management (CWRM)** established in 2020, undertake research and development activities for the restoration and conservation of surface and subsurface aquatic systems. The vision of the CWRM is to address the "Water Security" which is one of the most important global economic development issues classified under "UN-Sustainable Development Goals 2015-30 (UN-SDGs, 2015-30)". The centre is run by a multi-disciplinary team of scientists, engineers, expertise from disciplines including geology, geophysics, management, civil, mining and mineralogy, petroleum, and environmental engineering, to conduct research and development studies in the specified areas. "The mission of the CWRM is to create basic and use-inspired knowledge, technologies, methodologies and capabilities for sustainable utilization and management of the Earth's water resources".

Coordinator: **Prof. Sukh Ranjan Samadder.**

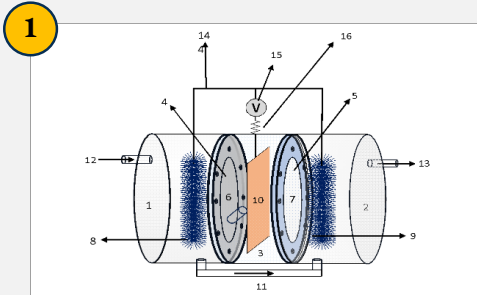
(Website: <https://people.iitism.ac.in/~cwrml/>)

The **Mining, Employability & Livelihood Hub (MEL HUB)** was established at Department of Environmental Science & Engineering in the year 2024 by American India Foundation Trust (AIFT). The objective is to create a program designed to cultivate future resilience and establish an alternative livelihood ecosystem, actively involving youth and promoting economic empowerment for women with an aim for expanding green livelihoods in mining areas. The MEL CoE is poised to create a climate-resilient livelihood ecosystem with a focus on Ecosystem Building, Entitlements, Employment Access, and Entrepreneurship (the 4E model).

Coordinator: **Prof. Anshumali.**

(Website: <https://people.iitism.ac.in/~melhub/>)

PATENTS / PROCESS / PRODUCTS DEVELOPED



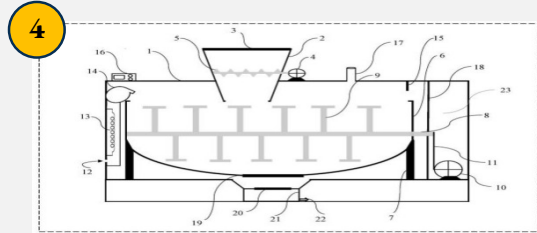
An electrochemical reactor for cathodic recovery of copper from wastewater.
(by Prof. Vipin Kumar, Ankur Singh and Nishant Pandey, PhD Research Scholar)
(Indian Patent No.202331080987 dated 29.11.2023)



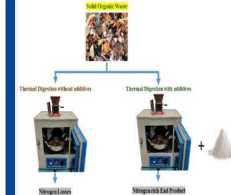
Solar/Led Light Driven Water Purifier
Prototype Product developed by: Prof. P. Saravanan et al (Application No. 202331057077 dated 25.08.2023, Published on 20.10.2023).



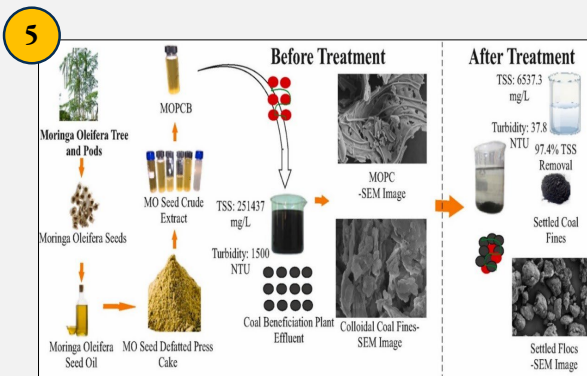
An electrode assembly for electrochemical biosensing of heavy metals and a process for the preparation thereof.
(by Ankur Singh, PhD Research Scholar and Prof. Vipin Kumar)
(Indian Patent No.202231076821 dated 29.12.2022)



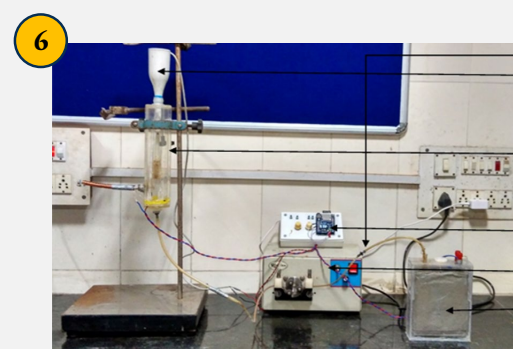
A TEAM FROM IIT(ISM) DHANBAD DEVELOPS RAPID ORGANIC WASTE STABILIZER



Apparatus for Rapid Treatment of Solid Organic Waste.
Inventor: Prof. S. K. Gupta & Mr. Nitin Kumar, PhD Research Scholar. (Patent No.: 373169; Year 2021)



A Process for The Preparation of Bio-coagulant Using Moringa oleifera Seed Biomass for The Removal of Fine Particles from Coal Washery Effluent.
Inventor: Prof. S. R. Samadder & Mr. Gaurav V Kapse
(Patent No.: 384138; Year: 2021)



Novel System For Regenerating And Reusing nZVI/ZVI Particles In Wastewater Treatment.
Inventor: Prof. Alok Sinha & Dr. Amal Saha, PhD Research Scholar. (Patent No.: 360353; Year: 2019)

LATEST PUBLICATIONS IN JOURNALS & BOOK CHAPTERS

Sl. No.	Research Paper / Article
1.	Kumari, P., & Samadder, S. R. (2024). Urban mining for graphite recovery from retired lithium-ion batteries and its valorization to valuable graphene materials: A comprehensive characterization study. <i>Journal of Energy Storage</i> , 102, 113873. [IF: 8.9 Q1] DOI: https://doi.org/10.1016/j.est.2024.113873
2.	Rani, A., Lal, A. S., & Saravanan, P. (2024). Bismuth niobate/g-C ₃ N ₄ heterojunction for maximised visible light photocatalytic removal of Bisphenol A. <i>Chemosphere</i> , 364, 143198. [IF: 8.1 Q1] DOI: https://doi.org/10.1016/j.chemosphere.2024.143198
3.	Singh, A., Kumar, V., Anand, S., Phukan, D., & Pandey, N. (2024). Fungi-derived Chitosan-CTAB composite-based electrode for electrochemical simultaneous detection of Cd (II) and Pb (II). <i>International Journal of Biological Macromolecules</i> , 136113. [IF: 7.7 Q1] DOI: https://doi.org/10.1016/j.ijbiomac.2024.136113
4.	Anand, S., Kumar, V., Singh, A., Phukan, D., & Pandey, N. (2024). Statistical modelling, optimization, and mechanistic exploration of novel ureolytic <i>Enterobacter hormaechei</i> IITISM-SA3 in cadmium immobilization under microbial inclusive and cell-free conditions through microbially induced calcite precipitation. <i>Environmental Pollution</i> , 348, 123880. [IF: 7.6 Q1] DOI: https://doi.org/10.1016/j.envpol.2024.123880
5.	Jain, R. K., Anshumali, Sherekar, P., Nayak, A., Jaiswal, S., Pimpalghare, K., Tumane, R., Jawade, A., Pingle, K. S., Suke, G. S., Kashyap, R. S. & Mandal, B. B. (2024). In vitro toxicity assessment of bioavailable iron in coal varieties of Central India. <i>PLoS One</i> , 19(9), e0309237. [IF: 2.9 Q1] DOI: https://doi.org/10.1371/journal.pone.0309237
6.	Kumar, S., Anshumali (2024). Dry season assessment of carbon storage and emission from upland and riparian soils in the Ganga River basin. <i>Geoderma Regional</i> , 38, e00851. [IF: 3.1 Q2] DOI: https://doi.org/10.1016/j.geodrs.2024.e00851
7.	Phukan, D., Kumar, V., Singh, A., & Anand, S. (2024). Accessing biochemical shifts in a novel <i>Scenedesmus</i> strain via acetaminophen detoxification: Experiment utilizing Box-Behnken optimization and isotherm analysis. <i>International Biodeterioration & Biodegradation</i> , 193, 105841. [IF: 4.1 Q2] DOI: https://doi.org/10.1016/j.ibiod.2024.105841
8.	Singh, A., Durbha, K. S., Sinha, A., & Pasupuleti, S. (2024). Comparative assessment of fluoride and arsenic mobilization mechanisms among the groundwater of the major affected river basins of India. <i>Water Supply</i> , 24(9), 2969-2998. [IF: 1.9 Q4] DOI: https://doi.org/10.2166/ws.2024.196
9.	Singh, A., Kumar, V., & Sarika. (2024). Fungi-based biosensing platforms for detection of heavy metals: focus on the eukaryotic system. <i>Trends in Biological Processes in Industrial Wastewater Treatment</i> , 9-1. URL: https://dx.doi.org/10.1088/978-0-7503-5678-7ch9

R&D AND CONSULTANCY PROJECTS

Sl. No.	Project Title	Status	Project Value	Funding Agency
1.	Scientific study for Environmental Impact Assessment & Risk Analysis for Utilization of Red Mud for NHAI Road Project in Jharkhand.	Received Consultancy Project	Rs.53.10 lakhs	M/s Hindalco, Muri.
2.	Flora-fauna and socio-economic study for baseline data generation of Cluster X of BCCL, Dhanbad.	Approved Consultancy Project	Rs. 23.60 lakhs	M/s BCCL, Dhanbad.
3.	Characterization and Environmental Significance of Waste Tailings Generated from BHQ Beneficiation Plant of Lloyds Metals and Energy Limited and its Feasibility study of Utilization (in the form of wet and coarse tailings) for different related Industrial Use. - Scientific Study.	Approved Consultancy Project	Rs.17.70 lakhs	M/s Lloyds, Maharashtra.
4.	Scientific Mining Closure Plan and Audit of Parsa-East Kanta Basan Coal Mine Block of Rajasthan Rajya Vidyut Utpadan Nigam Limited.	Approved Consultancy Project	Rs. 7.257 lakhs	M/s Adani Enterprises Ltd., Ahmedabad.

KEYNOTE LECTURES / NPTEL COURSES / EDP

KEYNOTE LECTURE



Prof. Mukesh Sharma, invited keynote speaker from Dept. of Civil Engineering, IIT Kanpur delivered Keynote Lecture on "Ozone: Basics to its Stratospheric Resurrection" on the occasion of 30th World Ozone Day celebration at GJLT, IIT(ISM) Dhanbad on 16.09.2024.

KEYNOTE LECTURE



Prof. Manish Kumar Jain – Professor, Dept. of ESE, IIT(ISM) Dhanbad, delivered Keynote Lecture on "Importance of World Ozone Day" on the occasion of 30th World Ozone Day celebration at GJLT, IIT(ISM) Dhanbad on 16.09.2024.

KEYNOTE LECTURE



Prof. Suresh Pandian E. – Associate Professor, Dept. of ESE, IIT(ISM) Dhanbad, delivered Keynote Lecture on "Emission, Accumulation, and Transport of ODSs" on the occasion of 30th World Ozone Day celebration at GJLT, IIT(ISM) Dhanbad on 16.09.2024.

NPTEL COURSES

1. **Industrial Wastewater Treatment course by Prof. Alok Sinha** – Professor & HOD/ESE, and **Prof. Sunil Kumar Gupta** – Professor (HAG)/ESE.
Link: https://onlinecourses.nptel.ac.in/noc24_ce53/preview
2. **Availability and Management of Groundwater Resources course by Prof. Prasoon Kumar Singh** – Professor/ESE.
Link: https://onlinecourses.nptel.ac.in/noc22_ce92/preview

EXECUTIVE DEVELOPMENT PROGRAM (EDP)



Department of Environmental Science and Engineering and Centre for Water Resource Management (CWRM), IIT (ISM) Dhanbad organized a four-day Executive Development Programme (EDP) titled, "Ecosystem Restoration, Eco-Park Development in Mined-out Areas, Carbon Sequestration, Ecosystem Goods & Services, and Application of RS, GIS & Modelling". The training programme was held at IIT (ISM)'s Industry-Institute Interaction Facility (IIIF), New Town, Kolkata from 23rd September 2024 to 26th September 2024. The convener of the program was **Prof. S. R. Samadder** – Professor/ESE and the Co-convener was **Prof. S. K. Maiti** – Professor (HAG)/ESE.

PHD THESIS SUBMITTED / PhD AWARDED

Awardee	Supervisor	Thesis Title
Diwakar Kumar	Prof. S. K. Gupta	Sustainable solutions for DB 86 Dye Abatement: A Comprehensive Study on Adsorption, Advance Oxidation and Electrochemical Degradation.

ACHIEVEMENT

The EIACP Programme Centre (RP) at the Department of Environmental Science & Engineering, Indian Institute of Technology (ISM) Dhanbad, has been awarded with the **Best Performing EIACP Centre** in the East Zone under the Regional category awards. This recognition was conferred by the Ministry of Environment, Forest, and Climate Change (MoEF&CC), Government of India, during the All India EIACP Coordinator's Meet held in New Delhi on September 7th, 2024.

The award, comprising a memento and a certificate, was presented to IIT (ISM) Dhanbad by **Ms. Nameeta Prasad** – Joint Secretary, MoEF&CC, and **Dr. Unmana Sarangi** – Director, MoEF&CC. Representing the IIT (ISM) EIACP Programme Centre (PC-RP) were **Prof. Alok Sinha** – HOD, Department of Environmental Science & Engineering and Coordinator of EIACP (PC-RP), and **Mr. Bishwajit Das** – Programme Officer, IIT (ISM) EIACP (PC-RP). The achievement of IIT(ISM) EIACP Programme Centre (RP) was later shared with **Prof. Sukumar Mishra** – Director, IIT(ISM) Dhanbad.



EVENTS AT A GLANCE

01. Teacher's Day Celebration on 5th September 2024



The Department of Environmental Science and Engineering, IIT (ISM) Dhanbad, celebrated Teacher's Day on 5th September 2024 with a pledge for a "Sustainable Lifestyle for Better Health and Environment." The event, held at the department's Seminar Hall, featured a variety of performances including dance, music, and poetry by students, staff, and even faculty members, reflecting the deep bond between mentors and students. The celebration was a heartfelt tribute to the educators who shape future leaders, emphasizing the department's commitment to sustainability and the pivotal role of teachers in guiding that mission.

EVENTS AT A GLANCE

02. World Ozone Day Celebration on 16th September 2024



The EIACP Programme Centre (RP), Department of ESE, IIT (ISM) Dhanbad, celebrated the 30th World Ozone Day on 16th September 2024, under the global theme "Montreal Protocol: Advancing Climate Action". The event was inaugurated by **Prof. Sukumar Mishra** - Director, IIT(ISM), alongside **Prof. Dheeraj Kumar** - Deputy Director, **Prof. Alok Sinha** – HOD/ESE & Coordinator, EIACP, and **Prof. Suresh Pandian** – ASP/ESE & Co-coordinator, EIACP. The celebration featured insightful keynote lectures, emphasizing the importance of climate action, and engaging activities like drawing and poster-making competitions for School Children, and UG/PG Students. This event underscored the institution's commitment to environmental sustainability and fostering awareness on ozone layer protection.



Drawings submitted by participants under World Ozone Day 2024 Drawing/Poster Making competition.

Glimpses of World Ozone Day 2024 Celebration.



Newspaper Clippings



(Source: Dainik Jagaran; Dt - 17.09.2024) (Source: Dainik Bhaskar; Dt - 17.09.2024)

EVENTS AT A GLANCE

03. Plantation Drive to establish “Matri Van” under “Ek Ped Maa Ke Naam” Campaign on 19th September 2024



In celebration of Ozone Week 2024 along with Swachhata Hi Seva Campaign 2024, the EIACP Programme Centre (RP) at Department of Environmental Science and Engineering, IIT (ISM) Dhanbad, in collaboration with the Horticulture Section, O/o Dean (Infrastructure) and the Centre of Societal Mission (CSM), IIT (ISM) Dhanbad organized a transformative plantation drive on Thursday, September 19th, 2024 at the 180 quarters of IIT(ISM) Dhanbad Campus.

This initiative, under the “Ek Ped Maa Ke Naam” campaign, focused on creating a sustainable “Matri Van” by rehabilitating a former dump site using the Miyawaki Technique, a plantation method that our Honourable Prime Minister **Shri Narendra Modi** had mentioned in his 102nd edition of Mann Ki Baat in June 2023.

The plantation drive was inaugurated by **Prof. Sukumar Mishra** - Director of IIT (ISM), along with his wife madam, **Smt. Sakuntala Mishra**.

04. Workshop by Bureau of Indian Standards at Department of ESE on 20th September 2024

The Environment and Ecology Department, Bureau of Indian Standards (BIS) conducted a workshop with the Faculty Members of Department of Environmental Science & Engineering, IIT(ISM) Dhanbad on 20.09.2024 in the GSM Conference Room of ESE Department. The goal of this workshop was to strengthen collaboration on standardization in the field of Environment and Ecology. **Smt. Varsha Gupta** - Head of EED/BIS, presented the BIS activities and standardization process, which was then followed by a discussion about the ongoing departmental projects by **Shri Lalit Yadav** - Scientist B/BIS.



05. Intellectual Property Awareness Session at the Departments of ESE on 25th September 2024



An IP awareness session was conducted by the DPIIT IPR Chair team at the Departments of Environmental Science & Engineering, IIT(ISM) Dhanbad on September 25, 2024. The primary objective of this awareness programme was to engage with faculty members and researchers, facilitating discussions on key aspects of intellectual property (IP) rights and the patent filing process. This initiative aimed to foster a deeper understanding of IP among researchers and to encourage greater participation in patent filings. The session was addressed by **Dr. Anindya Roy Chowdhury** - IPR Chair Professor, IIT (ISM) and **Mr. Ashok Hemanth Upputuri** - Patent Attorney, IIT (ISM).

FACULTY MEMBERS AT DEPT OF ESE



Prof. Alok Sinha
Professor & Head

Research Areas: Water And Wastewater Engineering, Groundwater Remediation, Solid Waste Management.



Prof. Anshumali
Professor

Research Areas: Geochemistry/ Biogeochemistry of Terrestrial and Aquatic Ecosystems, Environmental Microbiology, Ecology and Biodiversity, Natural Resource Mgmt. (Forests, Rivers, Reservoirs and Aquifers).



Prof. Biswajit Paul
Professor

Research Areas: Mine Environment, Land Reclamation, Intellectual Property Mgmt., EIA/Audit, Fly-Ash Utilization, Mine Fill, Mine Closure.



Prof. Brijesh Kumar Mishra
Associate Professor

Research Areas: Advanced Oxidation Processes Coupled Hybrid Systems for the Treatment of Water and Wastewater Treatment, Feasibility of Different Disinfection Processes and Devices for Controlling Disinfection By-product, Pollution Exposure and Human Health Risk Assessment.



Prof. Madhumita Patel
Assistant Professor

Research Areas: Waste to Energy, Up-cycling of Plastic Waste, Life Cycle Assessment and Techno Economic Analysis Co-processing of Biofuels with Refinery Process Modelling, Development of Catalyst, Thermochemical Conversion Process.



Prof. Manish Kumar Jain
Professor

Research Areas: Environmental Aspects of Mining Industry, RS & GIS, Air Pollution, Fly Ash Utilization.



Prof. Prasoon Kumar Singh
Professor

Research Areas: Groundwater Quality Assessment & Quantity Management, Environmental Geochemistry, Environmental Hydrogeology, Remote Sensing & GIS Application in Environmental Management, Noise Pollution, Soil Quality Assessment.



Prof. Riya Dutta
Assistant Professor

Research Areas: Hydraulics and Water Resources Engineering, Impact of Climate Change on Hydrologic Processes.



Prof. Saifi Izhar
Assistant Professor

Research Areas: Air Quality and its chemical and optical characterization (BC and BrC); Source apportionment; Atmospheric Processing of aerosols; Fog-aerosol interactions; Application of Low-cost sensors; Personal exposure and Deposition modelling.



Prof. Saravanan Pichiah
Professor

Research Areas: Advanced Functional Nanomaterials, Materials Chemistry, Water Energy Nexus, Solar Water Treatment, Solar Fuel.



Prof. Sheeja Jagadevan
Assistant Professor

Research Areas: Treatment of industrial wastewater, Low-cost treatment of arsenic and fluoride in drinking water, Resource recovery from wastewater, Development of biochar for water purification, Valorization of agricultural residues via biochar application.



Prof. Subodh Kumar Maiti
Professor (HAG)

Research Areas: Restoration Ecology; Carbon Sequestration, Biodiversity Conservation; Soil Conservation; Fly Ash Mgmt.; Bioremediation of Metallic Waste, Environmental Microbiology; Biological Wastewater Treatment, EIA & Auditing.



Prof. Sukha Ranjan Samadder
Professor

Research Areas: Application of LCA and RS & GIS in Environmental Management, Municipal Solid Waste Management, Water Treatment.



Prof. Sunil Kumar Gupta
Professor (HAG)

Research Areas: Water and Wastewater Engineering, Industrial Wastewater Engineering, Solid and Hazardous Waste Management.



Prof. Suresh Pandian E.
Associate Professor

Research Areas: Air Pollution, Emission and Dispersion Modelling, Vehicular Pollution & Traffic Flow Modelling.



Prof. Tinesh Pathania
Assistant Professor

Research Areas: Groundwater Modelling, Simulation-Optimization Models for Groundwater Remediation, Hydrology, Water Resources Management.



Prof. Vipin Kumar
Professor

Research Areas: Microbial remediation of persistent pollutants, Bio-electrochemical Systems for economical resource recovery, Biosensors for monitoring effluent quality, Solid waste management, Ecological restoration.



Prof. Vittal H.
Assistant Professor

Research Areas: Hydroclimatology, dynamics of Indian summer monsoon rainfall, heatwaves, drought, tropical cyclones, vulnerability, climate risk.

2024 CALENDAR

January

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
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28	29	30	31			

February

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March

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31						

April

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28	29	30				

May

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26	27	28	29	30	31	

June

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23	24	25	26	27	28	29
30						

July

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28	29	30	31			

August

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September

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29	30					

October

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27	28	29	30	31		

November

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17	18	19	20	21	22	23
24	25	26	27	28	29	30

December

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

2024 Calendar: Important Environmental Days

2nd February: World Wetland Day
 3rd March: World Wildlife Day
 14th March: International Day of Action for Rivers
 18th March: Global Recycling Day
 21st March: International Day of Forests
 22nd March: World Water Day
 23rd March: World Meteorological Day
 4th April: International Mine Awareness Day
 7th April: World Health Day
 22nd April: World Earth Day
 4th May: Coal Miners Day
 11th May: World Migratory Bird Day
 17th May: Endangered Species Day

22nd May: International Day for Biological Diversity
 3rd June: World Bicycle Day
 5th June: World Environment Day
 7th June: World Food Safety Day
 8th June: World Ocean Day
 15th June: Global Wind Day
 17th June: World Day to Combat Desertification & Drought
 21st June: International Day of Yoga
 26th July: World Mangrove Day
 28th July: World Nature Conservation Day
 16th September: World Ozone Day
 18th September: International Coastal Clean-up Day
 21st September: Zero Emission Day

22nd September: World River Day
 26th September: World Environmental Health Day
 28th September: Green Consumer Day
 2nd October: Swachhta Diwas
 7th October: World Habitat Day
 16th October: World Food Day
 24th October: International Day of Climate Action
 2nd December: National Pollution Prevention Day
 5th December: World Soil Day
 11th December: International Mountain Day
 14th December: National Energy Conservation Day

