SciTech Chronicles

WOXSEN UNIVERSITY

SCHOOL OF TECHNOLOGY & SCIENCES

NEWSLETTER

DECEMBER- 2025

Message

"REMEMBER, LEADERSHIP IS NOT JUST ABOUT ACHIEVING GOALS; IT'S ABOUT INSPIRING OTHERS TO ACHIEVE THEM TOGETHER. BY BLENDING THE WISDOM OF THE PAST WITH THE REALITIES OF THE PRESENT, LEADERS CAN NAVIGATE THE COMPLEXITIES OF THE MODERN WORLD AND CREATE LASTING IMPACT."

-Dr. Raul V. Rodriguez
Vice-President
Woxsen University

"I BELIEVE THAT EDUCATION IS NOT MERELY THE ACQUISITION OF KNOWLEDGE, BUT THE CULTIVATION OF WISDOM. WE WILL STRIVE TO CREATE A HOLISTIC LEARNING EXPERIENCE THAT FOSTERS INTELLECTUAL CURIOSITY, ETHICAL CONSCIOUSNESS, AND CULTURAL SENSITIVITY. BY PROVIDING OPPORTUNITIES FOR EXPERIENTIAL LEARNING, MENTORSHIP, AND COMMUNITY ENGAGEMENT, WE WILL EQUIP OUR STUDENTS WITH THE SKILLS AND VALUES NEEDED TO SUCCEED IN AN EVER-EVOLVING WORLD."

-Dr. Uma Ananda
Vice Chancellor
Woxsen University

Message

"IN MY SCHOOL OF TECHNOLOGY IT IS NOT JUST ABOUT THE CUTTING-EDGE LABS WITH THE LATEST INFRASTRUCTURE BUT THE ENVIRONMENT AND THE MENTORS AMONG THE FACULTY."

-Dr. Peplluis Esteva de la Rosa
Executive Dean
School of Technology

"AS DEAN OF THE SCHOOL OF SCIENCES, I'M PROUD OF OUR STUDENTS AND FACULTY FOR THEIR HARD WORK. OUR LABS ARE HELPING DRIVE EXCITING RESEARCH AND HANDS-ON LEARNING. I LOOK FORWARD TO THE CONTINUED SUCCESS OF OUR COMMUNITY."

-Dr. Daya Shankar
Dean
School of Sciences

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SCIENCE AND TECHNOLOGY NEWS

Orientation for the Senior Students across Science and Technology

The School of Sciences, Woxsen University, conducted a successful Even Semester Orientation for the 4th and 6th semester B.Sc. junior scholars on 14 November 2025 at Lecture Theatre 6 (LT 6).

The session began with an overview of the Polaris-based curriculum, where program directors and subject faculty provided a detailed explanation of the transformed learning framework, revised assessment pattern, and expectations for the upcoming semester.

The interactive discussion helped students clearly understand the academic vision and structure that will guide them throughout the term.

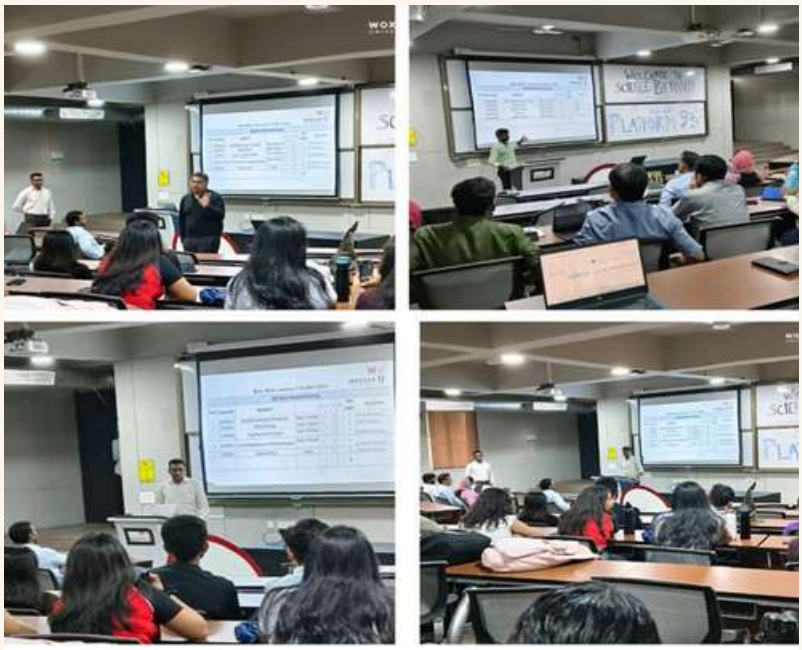
The orientation further highlighted several key academic and developmental components, including:

· Academic roadmap and assessment structure

· Skill-building and experiential learning modules

· Internship, research, and project opportunities

· Semester-wise timelines, responsibilities, and academic expectations



SCIENCE AND TECHNOLOGY NEWS

Woxsen University achieved a proud and historic milestone with the prestigious visit of Dr. John P.A. Ioannidis, Distinguished Professor at Stanford University and globally acclaimed creator of the Stanford Top 2% Scientists List. His visit marks a defining chapter in Woxsen's journey toward establishing itself as a center of excellence in research, innovation, and global academic leadership.

Dr. Ioannidis, recognized worldwide as a pioneering figure in meta-research, evidence-based medicine, scientific integrity, and research methodology, has made transformative contributions that have shaped modern scientific thinking. His presence at Woxsen University not only brought immense credibility but also inspired the scientific community across the campus.

As part of his visit, Dr. Ioannidis formally inaugurated the Biotechnology Laboratory at the School of Sciences. This state-of-the-art facility reflects Woxsen's strong commitment to strengthening research culture and empowering the next generation of scientists. The laboratory is equipped with advanced instrumentation designed to support cutting-edge experimentation in molecular biology, microbiology, genetics, bio molecular analysis, and applied biotechnology. It will serve as a central hub for hands-on training, innovation-driven projects, and impactful scientific exploration.

SCIENCE AND TECHNOLOGY NEWS

The School of Technology marked a special occasion this month by celebrating two significant milestones within its faculty. The community came together to honour Dr. Amogh Deshmukh on the successful completion of his doctorate and Dr. Brundaban Mishra on his promotion to full Professor—achievements that deepen the School's research strength, enhance teaching quality, and enrich its academic profile. To commemorate the moment, faculty members gathered for a brief celebration where a cake was dedicated to each colleague, symbolising that every individual accomplishment contributes to the collective growth of the School.

A phonetics session conducted in the language lab proved to be both insightful and engaging, offering students hands-on exposure to sounds, articulation, and speech patterns. Special thanks go to Dr. Dharmendra Kr Mishra for leading the session and sharing his valuable expertise in linguistics and phonetics, which made the learning experience enriching and enjoyable.

Sessions like these once again demonstrate that having the right experts in the classroom truly elevates learning—proving that experts are indeed what we need.

The Centre for Galician Studies, fosters educational collaboration and cultural exchange between India and Uruguay through innovative academic programming. The landmark event titled "Puentes Culturales: Fostering Uruguay-India Ties through Tech, Business and Diplomacy" held on November 27, 2025, brought together distinguished panelists including Mr. Alberto Guani (Ambassador of Uruguay to India), Prof. (Dr.) Ignacio Bartesagh (Universidad Católica del Uruguay), and Prof. (Dr.) Pep Lluis Esteva (Executive Dean, School of Technology, Woxsen University). The initiative emphasizes collaborative opportunities in technology innovation, business development, and diplomatic engagement, positioning Woxsen as a strategic platform for international dialogue and academic exchange. This exemplifies Woxsen's commitment to educational innovation and cultural bridge-building.

FACULTY ACHIEVEMENTS

Dr. Ramakrishna Madaka

Dr. Ramakrishna Madaka has been honoured with a Certificate of Reviewing by Elsevier, recognizing his dedicated service as a peer reviewer for the prestigious journal Materials Science in Semiconductor Processing. The certificate acknowledges his completion of three peer reviews between November 2022 and October 2025, reflecting his continuous contribution to advancing research quality and integrity in the field of semiconductor materials and nanotechnology.

Dr. Soumyadip Patra

The work was carried out under the mentorship of Dr. Suman Chirra, with contributions from co-authors Dr. Soumyadip Patra, Sagar Babar, and Dr. Suman Chirra from the School of Sciences. The paper was presented at SciTech-24, organized by Woxsen University, where it received recognition in the form of the “Best Technical Session” Award, highlighting the academic rigor and impact of the study.

Advanced Porous Materials for the Removal of Lead from Water: Synthesis, Mechanisms, Sustainability, and Future Perspectives

Advik Pathak, Soumyadip Patra, Sagar Subhash Babar, Suman Chirra*
School of Sciences, Woxsen University, Hyderabad, Telangana 502 345, India.
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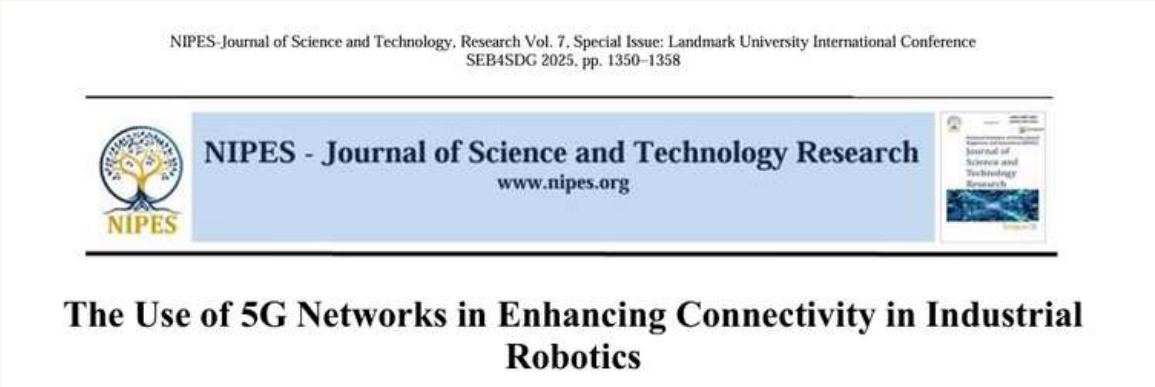
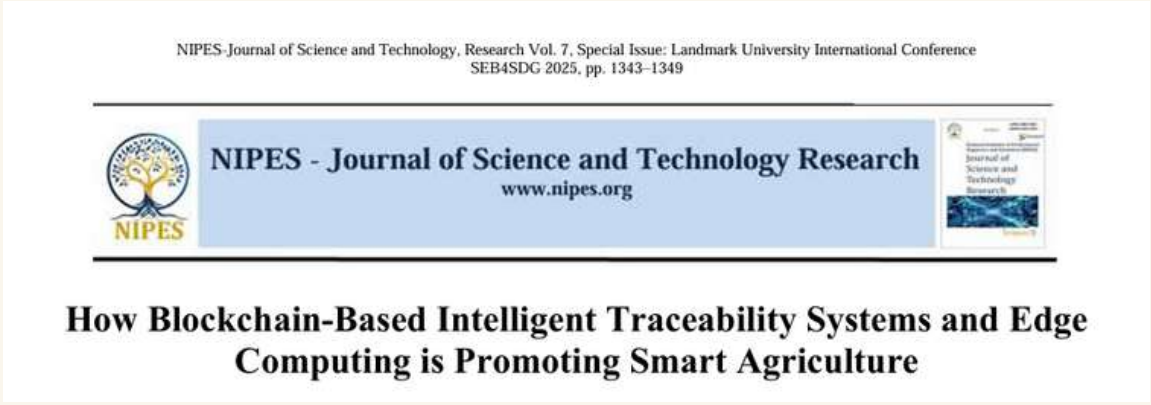
Abstract. Lead contamination in water presents a critical global challenge due to its persistence, toxicity, and diverse sources. Advanced porous materials such as MOFs, COFs, zeolites, graphene oxide, and biochar have emerged as transformative solutions for water purification. This review examines their synthesis, characterization, performance under varied conditions, regeneration strategies, environmental impacts, and future prospects, including green synthesis, machine learning integration, techno-economic analysis, and pilot-scale testing. Compared to MXenes and functionalized silica, MOFs offer superior adsorption capacities and tunable porosity, whereas MXenes provide higher conductivity but remain costlier. Currently, no techno-economic analysis or pilot-scale tests have been conducted within this study, though future work will evaluate scalability. Furthermore, no comprehensive lifecycle assessment comparing these materials with conventional adsorbents exists to date. Overall, advanced porous materials hold significant promise for achieving the WHO water quality standards sustainably.

FACULTY ACHIEVEMENTS


NIPES-Journal of Science and Technology, Research Vol. 7, Special Issue: Landmark University International Conference SEB4SDG 2025, pp. 1350–1358

NIPES - Journal of Science and Technology Research
www.nipes.org

The Use of 5G Networks in Enhancing Connectivity in Industrial Robotics


NIPES-Journal of Science and Technology, Research Vol. 7, Special Issue: Landmark University International Conference SEB4SDG 2025, pp. 1343–1349

NIPES - Journal of Science and Technology Research
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How Blockchain-Based Intelligent Traceability Systems and Edge Computing is Promoting Smart Agriculture

Dr. Segun and Dr. Abdullahi

Professors of School of Technology have published their article in NIPES- Journal of Science. The research that they have published are as follows: a) The Use of 5G Networks in Enhancing Connectivity in Industrial Robotics and b) How Blockchain-Based intelligent Traceability Systems and Edge Computing is Promoting Smart Agriculture.

Dr. Mohammad Ashfaq

Woxsen University proudly announces a significant research achievement from the School of Sciences. Dr. Mohammad Ashfaq, Associate Professor, has contributed to a high-impact publication in Materials Chemistry and Physics (Elsevier), indexed in SCOPUS & SCIE with an Impact Factor . This accomplishment reflects Woxsen's commitment to impactful scientific research aligned with UN SDG 3: Good Health & Well-Being.

FACULTY ACHIEVEMENTS

Dr. Raj Kumar Reddy Rajula

Woxsen University proudly highlights a significant research achievement by Dr. Raj Kumar Reddy Rajula, whose recent study presents a promising development in anticancer drug design. The work focuses on synthesizing a new series of indole-1, 3, 4-thiadiazole Schiff bases (U1–U31) aimed at enhancing therapeutic efficacy against cancer.

Dr. Rajender Boddula

Woxsen University is pleased to highlight a significant scholarly contribution from Dr. Rajender Boddula, whose recent review article explores the rapidly evolving landscape of prosthodontics and dental implantology driven by breakthroughs in materials science.

FACULTY ACHIEVEMENTS

Dr. Rajender Boddula

Woxsen University proudly highlights a major research contribution by Dr. Rajender Boddula, whose recent study focuses on developing an eco-friendly and cost-effective catalyst for biodiesel production using agricultural waste materials. The research repurposes waste eggshells and rice husks to create a heterogeneous alkaline catalyst, presenting a sustainable solution to meet the rising global demand for cleaner fuel alternatives.

Dr. Rajender Boddula

Woxsen University proudly showcases the latest research contribution by Dr. Rajender Boddula, whose study highlights the green synthesis of lanthanum oxide nanoparticles (La_2O_3NPs) using Drypetes sepiaria as a natural reducing agent. This plant-based approach supports sustainable nanotechnology practices while addressing critical environmental challenges.

FACULTY ACHIEVEMENTS

Dr. Bhanu Prakash

पेटेंट कार्यालय, भारत सरकार The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-01 in respect of the application of such design to *VARIABLE ANGLED ULTRASOUND PROBE* in the name of 1.DIT University 2. Dr. Gagan Singh 3.Dr. Sonika Singh 4.S Bhanu Prakash.

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

-

Dr. Bhanu Prakash Sir has a patent filed in VARIABLE ANGLED ULTRASOUND PROBE

Prof. Nagaraju

Prof. Nagaraju has done a research paper regardinga MPPT controller for renewable energy system

Results in Engineering 28 (2025) 108382

Contents lists available at ScienceDirect

Results in Engineering

journal homepage: www.sciencedirect.com/journal/results-in-engineering

Research paper

A novel comprehensive and rigorous analysis of variable step flying squirrel search optimization MPPT controller for renewable energy systems

Shaik Rafikiran, Likhitha R, CH Hussaian Basha, Nagaraju Dharavat

STUDENT ACHIEVEMENTS

Aayushmaan Pandab - BTech-2029 (AIML)

Aayushmaan Pandab has received a Certificate in recognition of their participation in Megathon 2025, organised by the Indian Institute of Information Technology, Hyderabad.

Mana Mani Kanta - BTech-2026 (AIML)

Mani Kanta has completed the internship as a Software Development Engineer (SDE) at Blue Stock Fintech

Safa Nazneen– B.Tech 2028 (Data Science)

Safa Nazneen has received a Certificate of Participation for participating in the post-webinar quiz of monetising your skills – Webinar and Post-Quiz organized by Skillyterns.

STUDENT ACHIEVEMENTS

Mr.Advik Pathak

A junior scholar from the School of Sciences, has successfully published his first research paper titled “Advanced Porous Materials for the Removal of Lead from Water: Synthesis, Mechanisms, Sustainability, and Future Perspectives.” The paper appears in the Proceedings of the International Conference on Sustainable Science and Technology for Tomorrow (SciTech 2024) under Atlantis Advances in Applied Sciences (AAAS), Springer Nature Group.

The research focuses on the use of advanced porous materials such as MOFs, COFs, graphene oxide, and biochar as sustainable approaches for addressing lead contamination in water. The study further explores green synthesis pathways, machine learning assisted optimization, and the techno-economic feasibility of scaling these technologies for real-world implementation.


International Conference on Sustainable Science and Technology for Tomorrow
SCITECH-24 (16TH-20TH SEPTEMBER'2024)
Organized By School of Sciences, WOXSEN University, Hyderabad
BEST TECHNICAL SESSION
Paper Title: Advanced Porous Materials for the Removal of Lead from Water
Author: Mr. Advik Pathak

STUDENT ACHIEVEMENTS

Vineeth Kumar T – B. Tech 2026 (AIML)

Vineet Kumar has received a Certificate of Appreciation for having Merit Performance in Codenovate 2.0, organized by Recurse, the Technical Club of Keshav Memorial Institute of Technology, on 15th – 16th November 2025

Ronit Reddy– B. Tech 2023

Ronit Reddy, a 3rd year student from Btech SOT joined internship in Jigya software as Tech Intern for 3 months

STUDENT ACHIEVEMENTS

Nisha Thamai– B. Tech 2023

Nisha Thamai, a 3rd year student from Btech, SOT joined internship in Algoleap as AIML Intern for 3 months

Saloni Sagar– B. Tech 2023

Saloni Sagar, a 3rd year student from Btech ,SOT joined internship in 10TIQ as AIML Intern for 3 months

STUDENT ACHIEVEMENTS

Muktesh – B. Tech 2023

Muktesh, a 3rd year student from Btech, SOT joined internship in Product bbs as Research Intern for 3 months

Kusumithai – B. Tech 2023

Kusumithai, a 3rd year student from Btech, SOT joined internship in Hexagon Consultancy as AIML Intern for 4 months

PUZZLE TIME !!

“Think Smart Before the Year Ends”

Puzzle 1 – The Internship Desk Mystery (Logical Reasoning)
Four students – Arun, Bella, Charan, and Disha – applied for a winter internship at a tech firm.
Each chose a different domain: AI, Cybersecurity, Data Science, and Cloud Computing.
Here’s what is known:
Arun did not choose AI or Cloud.
Bella chose either AI or Cloud, but not both.
Charan did not choose Cybersecurity.
Disha’s choice comes alphabetically just before Charan’s domain.
(Example: If Charan chose "Data Science", Disha must have chosen "Cloud Computing")
Question:
Who chose which domain?

Puzzle 2 – The Missing USB Drive (Short, tricky)
A professor left a USB drive on her desk containing all final exam papers.
When she returned, it was gone. She questioned three TAs:
Ravi: “I didn’t take it.”
Meena: “Ravi took it.”
Lokesh: “Meena is lying.”
Only one of the three is telling the truth.
Question:
Who took the USB drive?

Puzzle 3 – The Fridge Lock Code (Light aptitude)
The hostel fridge has a 3-digit lock.
The digits are from 1–9 and:
The sum of the digits is 15
The digits are all different
The middle digit is greater than the first and the last
The number is divisible by 3

ANSWERS FOR THE PREVIOUS PUZZLE

Left → Right:

Arjun (Espresso) – Kiran (Mocha) – Ravi (Cappuccino) – Neha (Latte) – Priya (Americano)

Logic in short:

Espresso is far left ⇒ Arjun must be leftmost (he didn't take Latte).

Priya has Latte ⇒ 4th seat (since she's not near Kiran).

Mocha sits beside Ravi ⇒ Kiran & Ravi are 2nd–3rd.

By elimination: Americano = far right = Priya, Latte shifts to Neha.

Cappuccino remains for Ravi.

Final:

Arjun–Kiran–Ravi–Neha–Priya = Espresso–Mocha–Cappuccino–Latte–Americano

Editor's Note

December 2025 Edition

As we turn the final pages of 2025, SciTech Chronicles arrives with a spirit of reflection, gratitude, and anticipation. This year has been transformative for our community: from breakthroughs in research and student-led innovations, to the remarkable growth of our technical clubs and labs. Each milestone reminds us of what happens when curiosity meets commitment.

December is not just the end of a calendar; it is a checkpoint. A moment to pause, look back at how far we've come, and realign with where we aim to go. For many of you, this month marks placement preparations, capstone ideation, or the beginning of new research journeys. Remember: every step you take "no matter how small contributes to the larger arc" of your own story.

In this special year-end edition, we bring you insights from emerging tech domains, student spotlights, and puzzles to sharpen your mind during the break. We also celebrate the collaborative energy that has shaped our academic and innovation culture throughout the year.

As we close 2025, let's carry forward a mindset that has fueled all progress so far: Learn boldly, experiment fearlessly, and stay endlessly curious.

Editor's Note

We warmly invite Junior Scholars, faculty, and staff to contribute your stories, achievements, and reflections to upcoming editions of SciTech Chronicles. Together, let's make this magazine the voice. Whether it's a breakthrough project, a global experience, or a classroom innovation your journey can inspire others. Let's make this platform a true voice of our School.

Wishing you a restful winter break, joyful holidays, and a powerful start to 2026.
See you on the other side of innovation.

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Woxsen University

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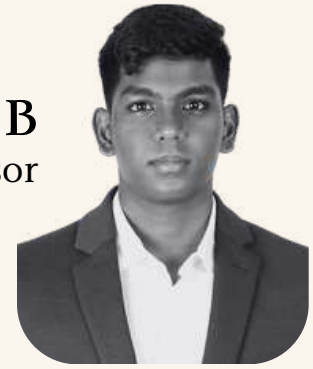

Mr. Krishna Sankeerth Pagoti
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