



SHARDA  
UNIVERSITY  
— AGRA —



Anand School of Engineering and Technology

**SAMACHARAM**

(February-March 2025)

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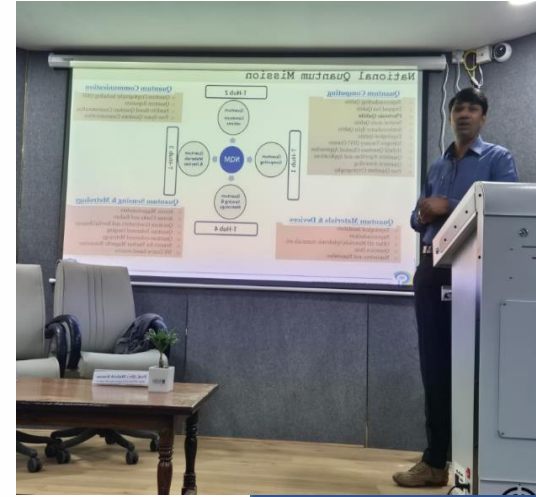
Patent

01



# EXPERT TALK ON SEMICONDUCTOR OPTOELECTRONIC DEVICES FOR OPTICAL COMMUNICATION & INTERCONNECTS

We are pleased to inform you that Anand School of Engineering & Technology, Sharda University Agra has successfully organized an expert talk on "Semiconductor Optoelectronic Devices for Optical Communication and Interconnects" delivered by Prof. (Dr.) Mukesh Kumar from IIT Indore. The session provided insightful discussions on semiconductor technology, optical communication, and their growing relevance in today's rapidly evolving technological landscape. It was an enriching experience, aimed at raising awareness and enhancing understanding of these critical areas. We would like to express our heartfelt gratitude to our Honorable Vice Chancellor, Prof. (Dr.) Jayanthi Ranjan for her continued support and motivation, which have been instrumental in making this event a success. A special thanks to Prof. (Dr.) R. Swaminathan, Dean ASET for his dedication to advancing such initiatives. We extend our sincere appreciation to Mr. Priyadarshi for his efforts in organizing this impactful event.





## ONE-DAY INDUSTRIAL VISIT TO ICAR-DRMR IN BHARATPUR, RAJASTHAN

Anand School of Engineering & Technology, Sharda University, Agra, successfully organized a highly insightful one-day industrial visit to ICAR-DRMR in Bharatpur, Rajasthan.

We extend our profound gratitude to the esteemed Vice-Chancellor, Prof. (Dr.) Jayanthi Ranjan, whose approval made this visit possible. Our sincere thanks also go to Dean Prof. (Dr.) R. Swaminathan, whose unwavering support and guidance were instrumental in the successful execution of this event.

We are equally thankful to Mr. Prakash Kumar (Assistant Professor), Dr. Divyani Panwar (Assistant Professor), and Mr. Pramod Gware (Head of the Department of Biotechnology) for their constant assistance throughout the visit. A special note of appreciation goes to all the attendees who dedicated their valuable time to be part of this enlightening experience.

The visit was meticulously organized by Mr. Nijendra Pratap Singh, Assistant Professor (Department of Biotechnology).





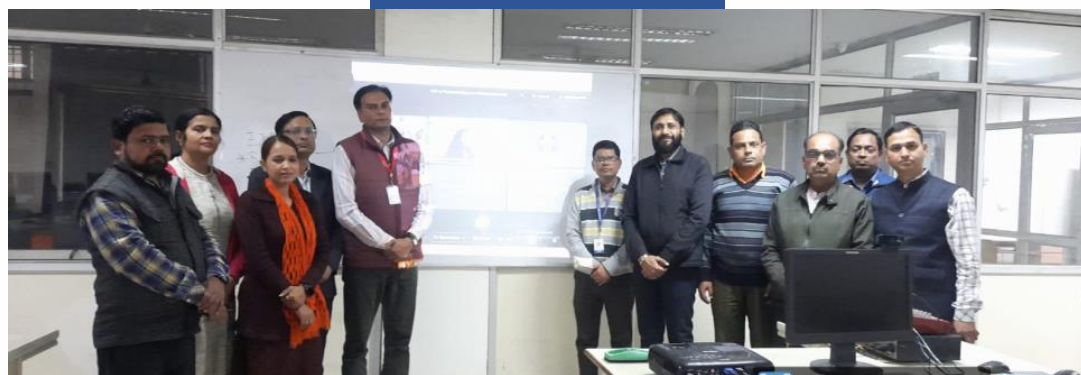
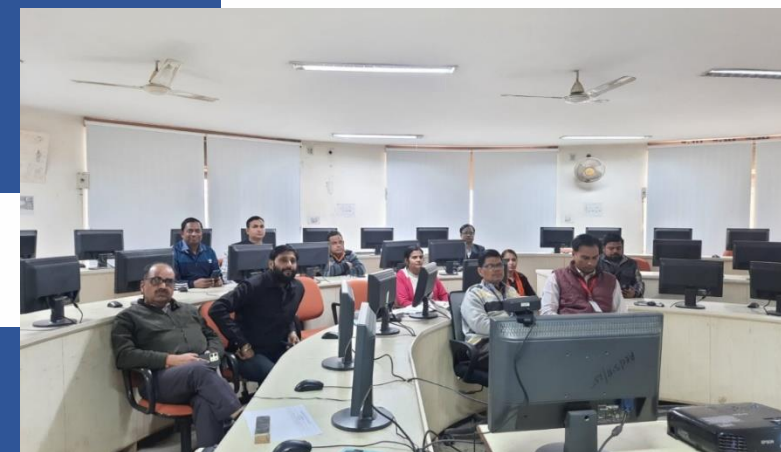
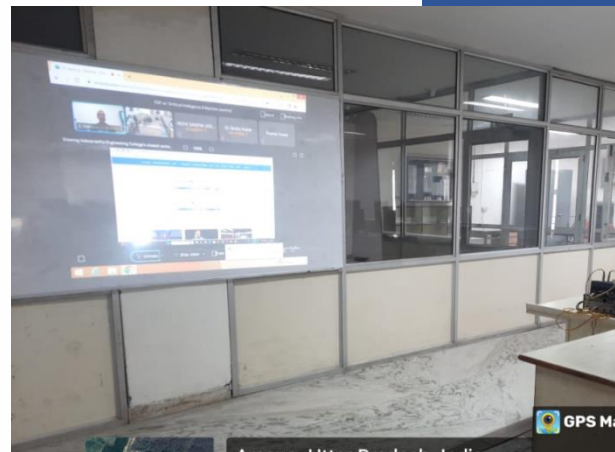
## FACULTY DEVELOPMENT PROGRAM ON AI & ML

Anand School of Engineering & Technology successfully organized **Faculty Development Program on AI and ML** in collaboration with IIT Guwahati and the E&ICT Academy from 17th to 22nd February 2025.

Mr. Ashwini shared his extensive knowledge of AI, ML, deep learning, and more. Faculty members also engaged in hands-on practical sessions on AI and ML using Python.

We would like to express our sincere gratitude to our Honorable Vice-Chancellor, Prof. (Dr.) Jayanthi Ranjan, for providing us with this invaluable opportunity to learn about cutting-edge technology. We also extend our heartfelt thanks to our Respected Dean, Prof. (Dr.) R. Swaminathan, for his continuous support and motivation.

Our sincere appreciation goes to HoD-CSE, Mr. Achal Kumar, for his guidance, as well as to all the faculty members who supported us throughout this journey. The entire event was coordinated by Dr. Shikha Singh, Assistant Professor (MCA & BCA), and Ms. Archana Singh, Assistant Professor (Department of CSE).



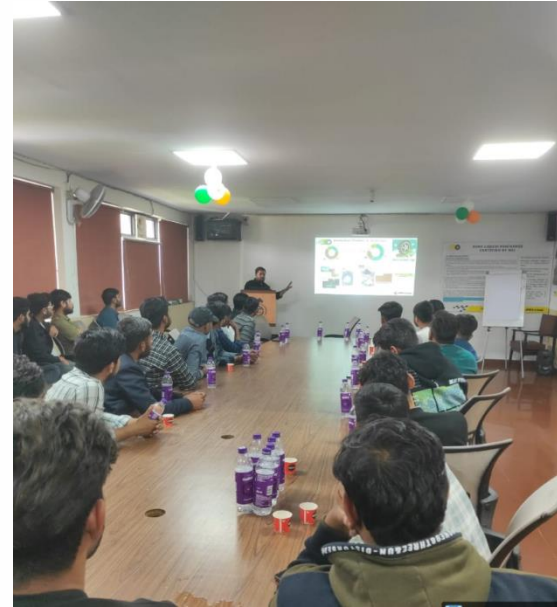


# VISIT TO JK TYRE & INDUSTRIES LTD, MORENA

Students of Anand School of Engineering and Technology, Sharda University, Agra, recently had an enriching visit to JK Tyre & Industries Ltd., Morena. This visit was organized for B.Tech and Diploma students of Civil Engineering (CE), Mechanical Engineering (ME), and Electrical Engineering (EE). The event was coordinated by the Standard Club of the Bureau of Indian Standards and supervised by Mr. Mohd Arif, Mr. Ravi Kumar, and Mr. Vikash Kumar Singh.

This industrial visit provided students with first-hand exposure to real-time manufacturing processes, from raw material processing to the final product. Observing advanced production techniques and quality control measures has significantly enhanced their practical knowledge and industry readiness.

We extend our heartfelt gratitude to our Honorable Vice-Chancellor, Prof. (Dr.) Jayanthi Ranjan, and Prof. (Dr.) R. Swaminathan, Dean of Anand School of Engineering & Technology, for their continuous support in facilitating such valuable experiential learning opportunities.





# TECHNO-ENTREPRENEURSHIP PROGRAM

Students of Anand School of Engineering & Technology, Sharda University, Agra, recently participated in a highly enriching 10-day Techno-Entrepreneurship Program organized by IHFC at IIT Delhi, Sonipat Campus.

Throughout this program, students gained valuable insights into the world of drones and IoT. The sessions covered essential topics such as drone types, advantages, and hands-on drone flying through simulation. Additionally, participants worked extensively on development boards like Arduino and ESP32, integrated with various sensors, enhancing their practical understanding of modern technologies.

The program also provided exposure to crucial entrepreneurship skills, along with knowledge of fundamental terminologies, rules, regulations, and benefits related to drones and IoT.

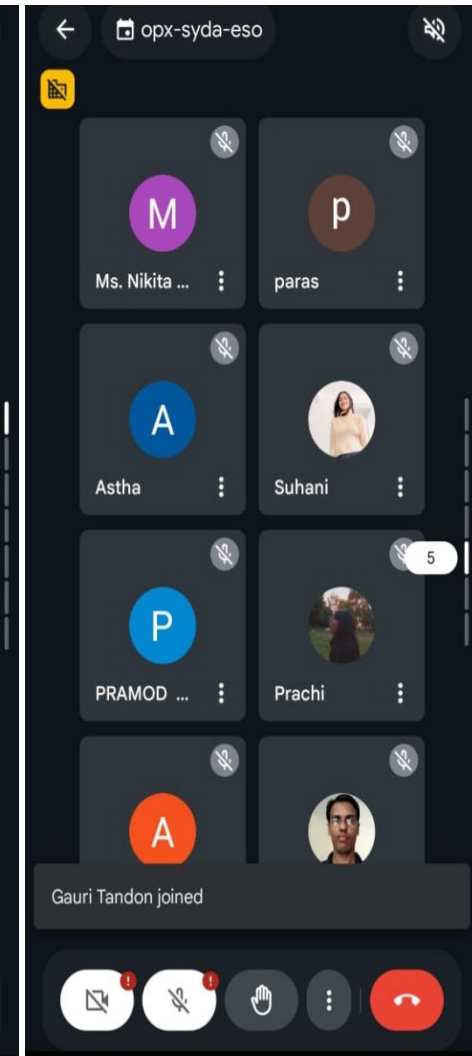
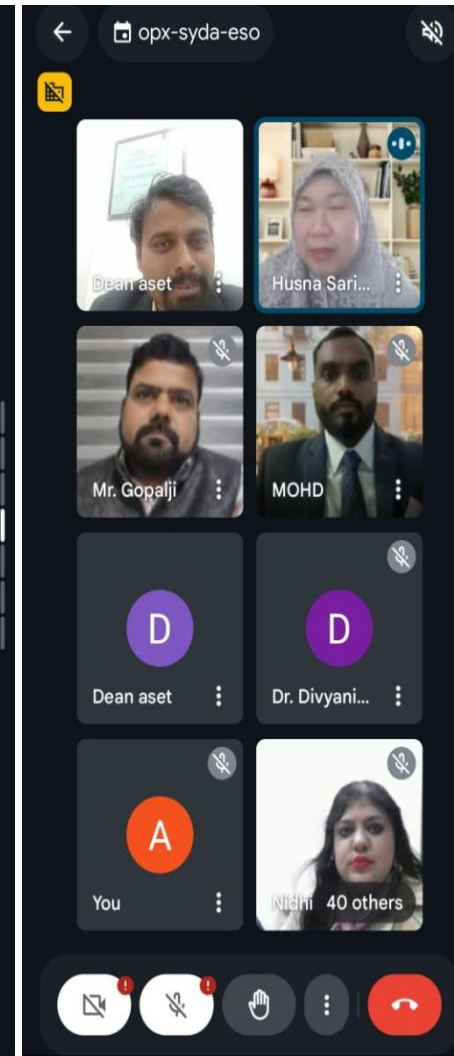
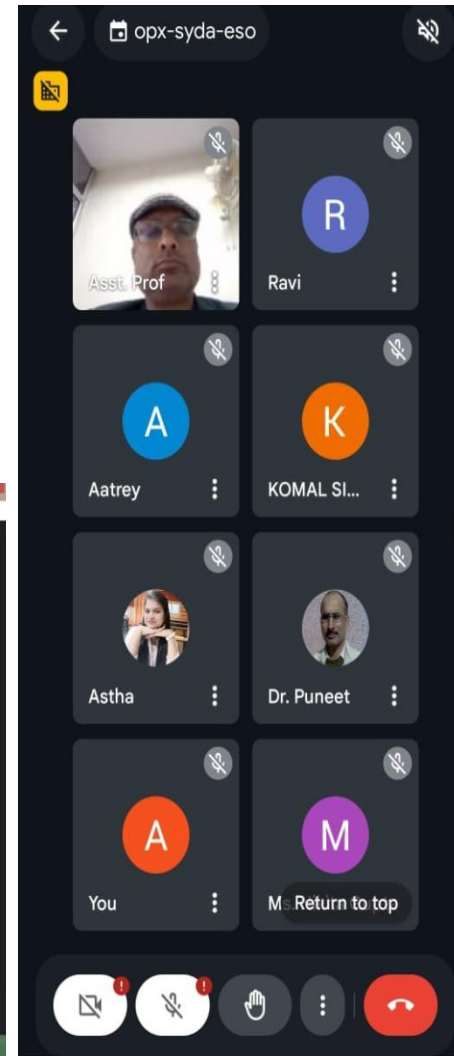
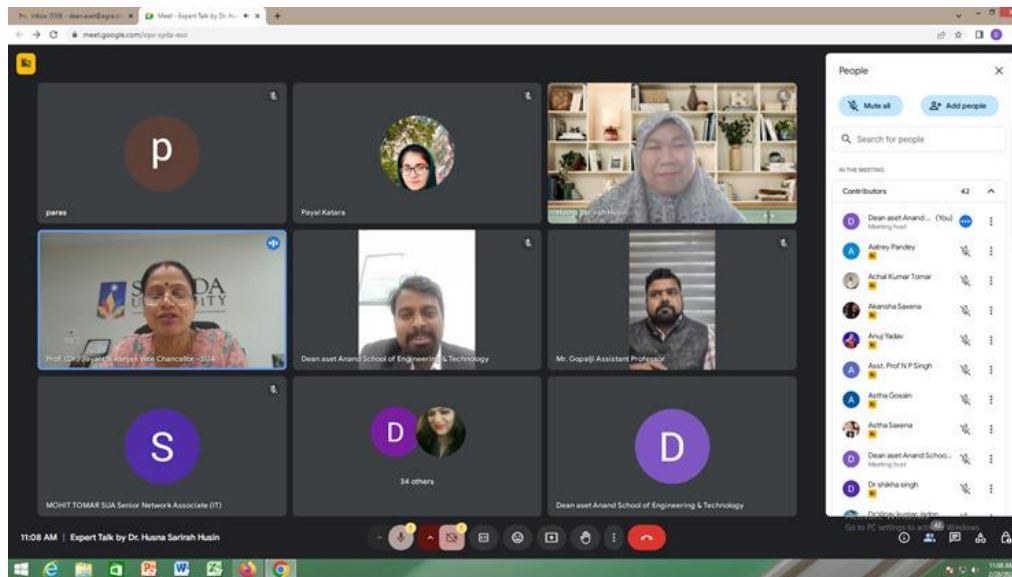
A heartfelt gratitude to our Honorable Vice-Chancellor, Prof. (Dr.) Jayanthi Ranjan; Prof. (Dr.) R. Swaminathan, Dean, Anand School of Engineering & Technology, Sharda University, Agra; and Assistant Prof. Dhinakaran M., Coordinator for the Center of Excellence – Drone Technology, Sharda University, Agra, for their unwavering support in facilitating such transformative learning experiences.



# NATIONAL SCIENCE DAY

Anand School of Engineering & Technology, Sharda University, Agra, proudly celebrated National Science Day on February 28, 2025, by hosting an international expert talk featuring Dr. Husna Sarirah Husin from Taylor's University, Malaysia, who shared valuable insights on "Harumanis Mango Maturity Classification Using Image Processing."

We extend our heartfelt gratitude to our esteemed Vice Chancellor, Prof. (Dr.) Jayanthi Ranjan, for this incredible opportunity, and to our respected Dean, Prof. (Dr.) R. Swaminathan, for his unwavering support. Our sincere appreciation also goes to the faculty, staff, and students whose participation made this session a remarkable success.

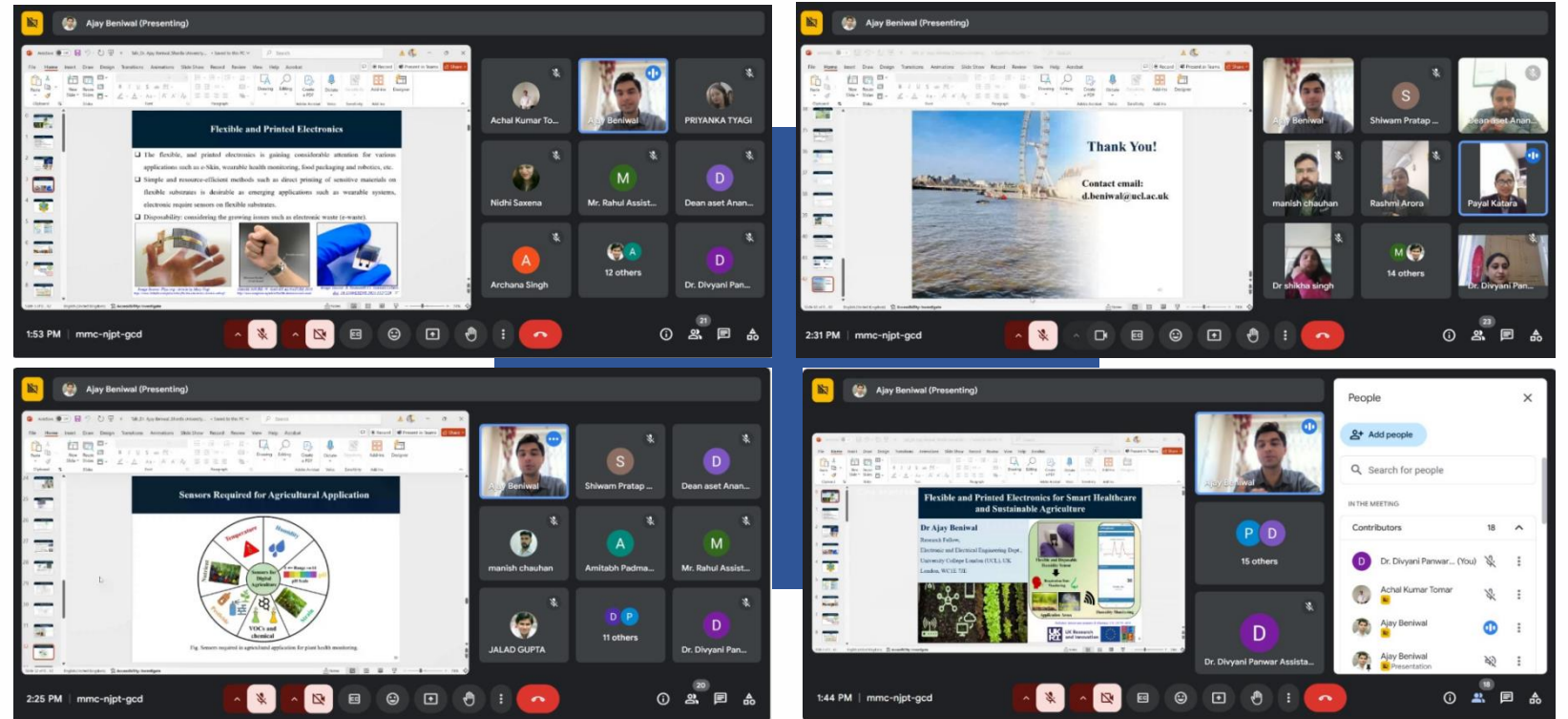




## INTERNATIONAL EXPERT TALK

Anand School of Engineering and Technology successfully hosted an insightful international expert talk on "Flexible and Printed Electronics for Smart Healthcare and Sustainable Agriculture," presented by Dr. Ajay Beniwal from University College London, UK. Dr. Beniwal shared his in-depth expertise, offering valuable perspectives on these transformative fields.

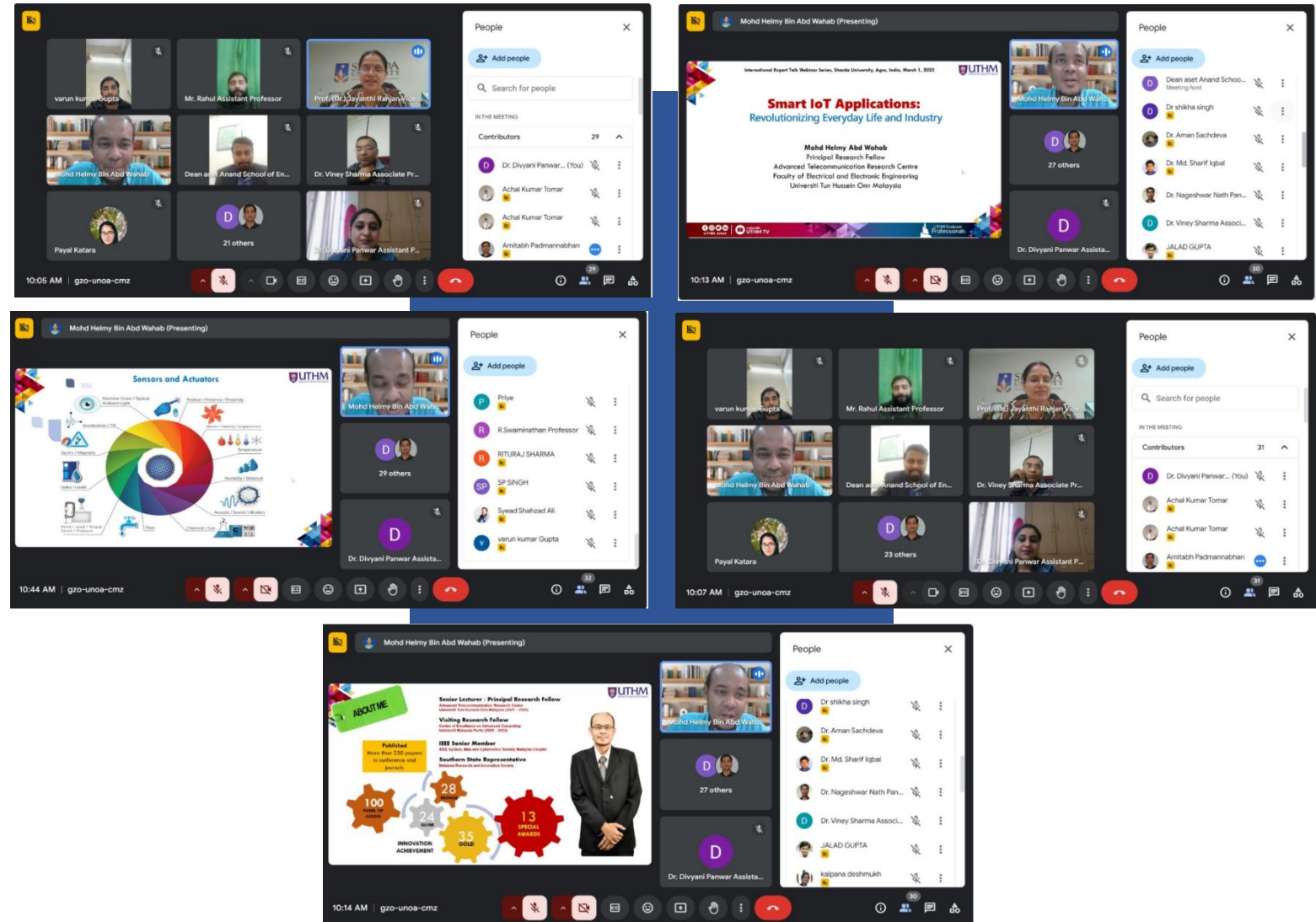
We extend our sincere gratitude to our Honorable Vice Chancellor, Prof. (Dr.) Jayanthi Ranjan, for this incredible opportunity, and to our Respected Dean, Prof. (Dr.) R. Swaminathan, for his unwavering support. A heartfelt thanks also goes to the faculty, staff, and students whose participation contributed to the event's success.



## INTERNATIONAL EXPERT TALK

Anand School of Engineering and Technology successfully hosted an international expert talk on "Smart IoT Applications: Revolutionizing Everyday Life and Industry" by Dr. Mohd. Helmy Abd Wahab from Universiti Tun Hussein Onn Malaysia. During the session, Dr. Helmy shared his expertise on how Smart IoT Applications are transforming both everyday life and various industries.

We would like to express our sincere gratitude to our Honorable Vice Chancellor, Prof. (Dr.) Jayanthi Ranjan, for providing us with this wonderful opportunity to explore this revolutionary technology. Our heartfelt thanks also go to our Respected Dean, Prof. (Dr.) R. Swaminathan, for his continued support. Additionally, we deeply appreciate the participation of all faculty members, staff, and students in making this session a success.





# JOURNAL PUBLICATIONS



**MR. NIJENDRA PRATAP SINGH**  
ASSISTANT PROFESSOR  
DEPARTMENT OF  
BIOTECHNOLOGY



# JMBFS

Journal of Microbiology, Biotechnology and Food Sciences

International peer-reviewed scientific online journal



Published by  
Faculty of  
Biotechnology and  
Food Sciences

## RECENT ADVANCES IN AZITHROMYCIN REMOVAL THROUGH THE BIOCHAR

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Address(es):

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### Review



### ABSTRACT

Azithromycin contamination is one of the environmental concerns worldwide and it has been included in the EU's watch list for emerging contaminants in the aquatic environment. It is imperative to decrease azithromycin's environmental footprint from the environment in sustainable ways. Azithromycin remediation can be carried out either by adsorption through biochar or microbial degradation. Biochar-based adsorbents are produced using various feedstocks, including waste products. The use of biochar for contaminants removal is an economic and environmentally sustainable approach. Biochar adsorption mechanism involves surface complexation, weak van der Waals' forces,  $\pi$ - $\pi$  bonding, electrostatic interactions, and H-bonding. Physico-chemical properties of biochar affect the adsorption and removal of azithromycin. Several chemical, thermal, electrochemical, and microwave-aided regeneration methods being used for recycling biochar those are essential for the cost-effectiveness of the process. This also fits with worldwide tendencies toward sustainable development and a circular economy. The latest research on the elimination of azithromycin by using biochars has been discussed in this review.

**Keywords:** Azithromycin, Adsorption, Engineered biochar, Emerging contaminant, Remediation

# INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES



**MS. DIVYANI PANWAR**  
**ASSISTANT PROFESSOR**  
**BIOTECHNOLOGY DEPARTMENT**



# EMERGING TECHNOLOGIES POSTHARVEST MANAGEMENT AND VALUE ADDITION IN HORTICULTURAL COMMODITIES



**MS. DIVYANI PANWAR**  
**ASSISTANT PROFESSOR**  
**BIOTECHNOLOGY DEPARTMENT**







# SATELITE IMAGE DETECTION USING EFFICIENT DET & EASTER R-CNN



**MR. SHIVAM PRATAP SINGH**  
**ASSISTANT PROFESSOR**  
**COMPUTER SCIENCE & ENGG.**



# ARTIFICIAL INTELLIGENCE & MACHINE LEARNING CERTIFICATE



Ref. no: EICT/P-II/NKN/24-25/004/282

**Electronics & ICT Academy**  
**Indian Institute of Technology Guwahati**  
*Supported by Ministry of Electronics and Information Technology (MeitY), Govt. of India*


**Certificate of Participation**

This is to certify that


**Mr. Jalad Gupta**

**SHARDA UNIVERSITY AGRA**


of \_\_\_\_\_  
has participated in one-week Faculty Development Programme on “Artificial Intelligence & Machine Learning” organized by E&ICT Academy IIT Guwahati held from 17<sup>th</sup> to 21<sup>st</sup> February, 2025 in association with Inderprastha Engineering College (Hub), Sharda University Agra(spoke) and Echelon Institute of Technology (spoke) and support from UniConverge Technologies Pvt. Ltd.




**Prof. Gaurav Trivedi**  
PI, E&ICT Academy  
Indian Institute of Technology  
Guwahati




**Mr. Kaushlendra Singh Sisodia**  
Director  
UniConverge Technologies Pvt. Ltd.  
Noida



**Prof. (Dr.) Ajay Kumar**  
Director  
Inderprastha Engineering College



**Prof. (Dr.) Jayanthi Ranjan**  
Vice Chancellor  
Sharda University Agra  
Agra



**Dr. Sudarshan Goswami**  
Director,  
Echelon Institute of Technology,  
Faridabad



**MR. JALAD GUPTA**  
**ASSISTANT PROFESSOR/EE**

# RECENT ADVANCEMENTS AND CHALLENGES IN INTEGRATION OF IoT & 5G/6G WIRELESS COMMUNICATION : BUILDING THE NEXT GEN CONNECTIVITY



**MR. DHINAKARAN M**  
**ASSISTANT PROFESSOR/ECE**



# PATENT OF SOLAR-POWERED ELECTRIC VEHICLE CHARGING STATION WITH INTEGRATED BATTERY STORAGE



**MR. JALAD GUPTA**  
**ASSISTANT PROFESSOR/EE**



Office of the Controller General of Patents, Designs & Trade Marks  
Department for Promotion of Industry and Internal Trade  
Ministry of Commerce & Industry,  
Government of India

Application Details	
APPLICATION NUMBER	202511004324
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	19/01/2025
APPLICANT NAME	1 . Mr. Jalad Gupta 2 . Dr. K. A. Emmanuel 3 . Dr. Samanthaka Mani Kuchibhatla 4 . Dr. Nellore Manoj Kumar 5 . Dr. T. Vivek 6 . Dr. Vijay Kumar Dixit 7 . Dr. P. Jamuna Rani
TITLE OF INVENTION	SOLAR-POWERED ELECTRIC VEHICLE CHARGING STATION WITH INTEGRATED BATTERY STORAGE
FIELD OF INVENTION	ELECTRICAL
E-MAIL (As Per Record)	nmkumar797@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
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# SAMACHARAM TEAM



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**Prof (Dr.) R. Swaminathan**



Editor  
**Mr. Ravi Kumar**

Creative Designer  
**Ms. Versha Raghuwanshi**



The background is a soft watercolor wash in shades of light green and cream. It is decorated with delicate, hand-painted green foliage, including sprigs of leaves and small, rounded berries, positioned in the corners. Two elegant, swirling lines of gold leaf are painted across the background, one on the left and one on the right, framing the central text.

THANK  
YOU