

A Report on Guest Lecture on
“Wood and Wood Derived Polymers for Sustainable Design of Emerging Application”
Organized by Department of Chemistry
16.11.2023



Chief Guest: Dr. Nadezda Prochukhan, Member of Technical Staff, Longitude Licensing Ltd, Dublin, Ireland.

Convener: Dr. Lipeeka Rout, Asst. Prof., Dept. of Chemistry, MITS

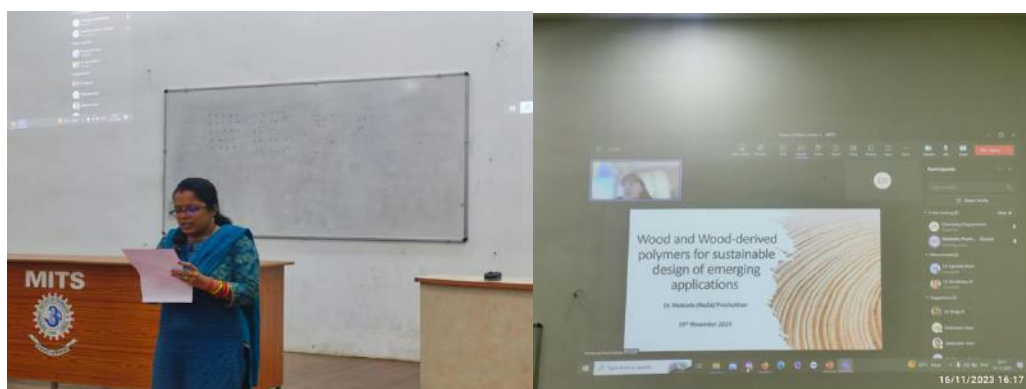
Attendees: 75 students of B. tech 1st year and 2nd years (Internal) & all faculty members from Department of Chemistry

Submitted by: Dr. Renjith Bhaskaran, Assistant Professor & HoD, Department of Chemistry

The event was started by Tapasvi (B.Tech 1st Year Student), Madanapalle Institute of Technology & Science, Madanapalle (MITS) through her welcome speech at 4.00 PM followed by the inaugural address to the gatherings by Dr. Renjith Bhaskaran, HoD-Chemistry, MITS, Madanapalle.



Further, Vice Principal Academics- Prof. P. Ramanathan of MITS addressed the gathering. The resource person of the event **Dr. Nadezda Prochukhan**, Member of Technical Staff, Longitude Licensing Ltd, Dublin, Ireland joined through online. The academic profile of Dr. Nadezda Prochukhan was being introduced to the gatherings by Dr. Lipeeka Rout, Assistant Professor, Department. of Chemistry, MITS, Madanapalle.



Dr. Nadezda Prochukhan started the lecture by extending her sincere thanks to the participants, organizing members, HoD - Chemistry, Principal, Vice Principal and Management of MITS Madanapalle for giving her the opportunity to share his knowledge and experience in Material Science research and allied branches. He discussed the scientific definition of Wood, its importance in sustainable application in day-to-day life in the introductory remarks. She adds further about the importance of wood derived polymers in various applications.



The first part of her lecture focused on explaining the importance of knowing why we would use Wood for applications. She illustrated this by saying that how wood is green in nature and non-hazardous, also its bioavailability and abundant. She shared about how with climate changes and forestry policies the number of native trees get reduced rapidly. Further, she elaborates the use of wood-based material, such as transparent wood, stronger wood and woo-based membranes can be used for various applications.

In the second part of the talk, Dr. Prochukhan briefly discussed about the grand challenges such as, climate, built environment and circular bioeconomy based on woods. Further she discussed about the synthesis of transparent wood by taking pine-wood. She explained how a pine wood after bleaching treatment and infiltration of cellulosic and other resin into the delignified wood can give yield to a transparent wood which can further utilized for various energy devices.

Towards the last part, she discussed about the recent work going on her research group. She explained how she used various sophisticated techniques (Scanning electron microscope, to understand the properties of wood derived polymers. She told the audience as she wrapped up her talk that material science is interdisciplinary and that everyone can always learn something new to improve the lot of average people.

The lecture was then followed by a question & answer session.



The event was concluded at 5.00 PM by a vote of thanks given by Dr. Rajaram R, Assistant Professor of Department of Chemistry, MITS, Madanapalle.