

**Lecture by Dr. Pankaj Aggarwal on 24<sup>th</sup> April 2018**

TOPIC OF THE SEMINAR : **WOOD PLOYMER COMPOSITE – A GREEN TECHNOLOGY**

Date : **24.04.2018**

Name of Presenter : **Dr. Pankaj Aggarwal**  
**Scientist G, Inst. of Wood Sc. and Tech.**

Time and Venue : **4.30 P.M. Extension Hall, IWST**

At the outset, Mr. Mohan Karnat, Group Coordinator (Research) welcomed the speaker Dr. Pankaj Aggarwal, Scientist G, IWST.

The speaker started off saying that, today bio-based thermoplastic composites are gaining importance and creating interest. It is being used as fillers in organic and inorganic composites mainly for its bio-degradable, renewable and environmentally-friendly nature. Bio-based / agro based fibers like jute, bamboo coir and bagasse, in addition to wood powder and fibers are in use today.

Further, he touched upon the following topics with pictorial representations and photographs in support of the same

- Wood polymer blending technology using twin screw extruder and injection moulding machine
- Development of Novel coupling agent namely m-TMI-g-PP as being superior to conventional agents with better mechanical properties
- Characterization and desired properties like improved stiffness, thermal stability, tensile and bending strength etc.
- Major advantages like low density, non abrasive, light weight, damage tolerant, etc.
- Field of application like automobile industry, construction sector, etc.
- future trends like better distribution channels through increased producers, traders, end users, quality improvement and cost efficiency
- Challenges and performance validation
- Milestone achievements by IWST in commercialization through MoUs for marketing of technology
- Technology status and future research initiative and innovations.
- Testing facility and development of Wood Polymer Composite Research and Training Centre at IWST which currently offers three day training course.

The session concluded with active interaction by IWST scientists and the speaker clarified the doubts raised by Director, officers and scientists. Director, IWST thanked the speaker for a very interesting and informative lecture.