Specialized Training Programme on Nanotechnology

February 22-25, 2012
at
Institute of Wood Science and Technology, Bangalore

Nanoscience is an emerging science which deals with the manipulation and characterization of objects whose at least one dimensions range from a few nanometers to less than 100 nanometers. At this size, materials exhibit properties which are very different from macro sized material because of very large surface area when compared to the mass and dominance of quantum effects (electronic properties of solids are altered with great reductions in particle size). In this form they have tremendous commercial potential because materials are chemically more reactive and have very different mechanical, optical, thermal and electrical properties. Nanotechnology is expected to provide large opportunities to the industries in the coming decades. It is said that nanotechnology is set to bring second industrial revolution. Recognizing the importance of nanotechnology, a four day training program was organised for Scientists of various ICFRE institutes at the Institute of Wood Science and Technology, Bangalore. Experts from Indian Institute of Science (IISc), IWST and other organization delivered lectures specially designed for scientists working in various areas of wood science and forestry. Objective of this training program was to familiarize the scientist with nanotechnology and help them in finding ways to use nanostructured material and to integrate nanosciences with their current field of research.

The course covered various aspects of nanotechnology like fundamentals of nanotechnology and its application, bio-nano-materials and biological interface, length scales, top down and bottom up approaches to bio-nanotechnology, common preparation methods properties and applications of selected bio-nano materials, nano biosensors, nanoscale characterisation, AFM, SEM, nanocomposites, etc.

Visit of trainees (ICFRE Scientists) to Nano Science Department of IISc Bangalore during 4 days training programme at IWST Bangalore