



**Training program
on
Preparation and Characterization of
Wool-Polymer Composites
(Faculties & Scholars)**



19.05.2025 to 28.05.2025

Organised by

**Textile Manufacture and Textile Chemistry Division
ICAR-Central Sheep and Wool Research Institute
Avikanagar, Rajasthan-304501**

About the Training Program

The TMTC Division, ICAR-CSWRI is organising 10 days training program on “Preparation and Characterization of Wool-Polymer Composites from 19.05.2025 to 28.05.2025. The prime objective of the training program is to provide a hands-on training on the methods of preparation of wool composites with various polymers and their analysis through standard protocols. The basic theory behind each process will be clarified through various technical sessions including lectures and practicals. The program also covers the methods of experimental designing, data analysis tools, and lectures on writing quality research publications. Students, research scholars, and faculty members are cordially invited to participate in the training.

Textile Manufacture and Textile Chemistry Division

The Textile Manufacture and Textile Chemistry Division of CSWRI conducts basic and applied research on various aspects of sheep wool along with other animal fibres. The division has a complete wool processing plant to perform wool scouring, spinning, weaving, and chemical processing. The testing and chemical processing lab is equipped with all characterization instruments for the analysis of wool fibre, yarn, fabric and composites. The Division did research on various products of wool such as carpets, blankets, namda, jackets, and shawls for value addition. The processing technologies viz. shawls from angora/pashmina, handloom carpets, natural dyeing and anti-moth treatment significantly improved the value of woollens. Currently, the research thrust is on nanotechnology and biotechnology applications in wool processing, natural fibre composites, sustainable chemical processing, alternative applications of wool in fashion and apparel industries, and coarse wool in technical textiles.

Course content

Wool fibre yarn and fabric testing, surface modification techniques, preparation of hard and flexible wool composites using thermo plastic and thermoset polymers, physico-mechanical analysis of composites (tensile, impact, flexural, tear, hardness, bending, aging, moisture content, solvent diffusion, FTIR analysis, CCM, biodegradation, etc) Lectures on wool, textile testing, composites preparation methods, surface modification of natural fibers, testing of composites and softwares for experimental design and data analysis, methods of writing quality research publications are included in the training program.

Instrumentation facilities

Universal testing machine, Projection microscope with fiber diameter analysis software, Gloss meter, Miniature carding, Abrasion tester, Pilling tester, Twist tester, Wrap reel, Fiber bundle strength analyzer,, Hardness tester, Crock meter, Electrospinning, Impact strength tester, Acoustic testing machine, Bursting strength tester, Thermal insulation analyzer, Light cabin, Hot press, Carpet abrasion tester, Drape metre, Carpet dynamic loading tester, Carpet resiliency tester, Magnetic stirrer with hot plate, Infrared dyeing machine, Padding mangle, Ultra sonicator, Shaker with incubator, Computer colour matching system, FTIR, UV VIS Spectrophotometer, Lyophilizer, Small scale dyeing machine, Laundro meter Incubator, Pulverizer, Pulverizer, Hot air oven.

How to reach ICAR- CSWRI, Avikanagar

Location: ICAR- CSWRI, Avikanagar is situated about 90 km from Jaipur city. The Campus is accessible through road only either by Rajasthan State Roadways bus service or by hired taxi service.

Registration Fee

For students and research scholars Rs.12000/- and for faculty Rs.15000/- (Including boarding & lodging and GST).

(Registration fee will be exempted for students/research scholars belongs to Scheduled Cast)

The payment may be deposited in the following bank account number. ICAR unit CSWRI Avikanagar.

A/C no - 51066000084

State bank of India, Malpura

IFSC Code – SBIN0031088

All interested participants requested to give intimation by email to seiko.jose@icar.org.in, seiko_jose2005@yahoo.co.in, on or before 10.05.2025.

Name :

Organisation name and address :

Educational qualification :

Phone no :

Email id :

Contact

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Organising committee

Dr. Arun Kumar Tomar (Course Director)

Dr. Seiko Jose (Course coordinator)

Dr. Ajay Kumar (Course co-coordinator)

Dr. Vinod Kadam (Course co-coordinator)