

Doctorate & Post Doctoral Research Areas

Textile Engineering:

Analysis and design of yarn and fabric formation systems such as rotor spinning, friction spinning, weaving, knitting, braiding etc., structural mechanics of yarns, knits, woven, braided and nonwoven materials, comfort, handle and other functional aspects of fibrous assemblies, Design and development of technical textiles such as geotextiles, filters fabrics, medical textiles, packaging textiles etc., systems analysis, textile production and marketing.

Textile Chemical Technology:

Chitosan Chemistry And Application, Isolation And Application Of Sericin, Surface Functionalization By Plasma And UV Excimer Lamp, Micro-Encapsulation And Nano Encapsulation, Processing Of Bamboo Fibres, Natural Dyes, Dyeing And Finishing, Conducting Fabrics, Bio-active Fabrics, Textile Ecology And Environment.

Fibre Science & Technology:

Synthesis and characterization of advanced polymeric materials. Structure property correlation, Functional polymers and systems , Stimuli responsive polymers and Phase change materials for heat storage, Modification of natural and synthetic fibres , Nanofibers by electrostatic spinning, Polymeric Nanocomposites, Nano clay based coatings and composites, Nano engineered fire resistant composite fibres, Biomedical applications of Textiles, Sustainability and polymer recycling, Modeling and simulation, Green composites, High stress elastic Materials (ropes/braided structures).