

## **Sponsored Projects**

### **Ministry of Textiles, Government of India**

Design and development of low cost shuttleless looms for decentralised powerloom sector

Yarn quality improvement with an air-jet attachment in cone winder

Optimisation of inter roller distance of draw frames, speed frames and ring frames based on AFIS length data

Development of a computerised system for marker making in garment industry

Development of fire-resistant yarns and fabrics using air-jet spinning technology

Design and fabrication of different types of flat tops for carding and use of vario-comb in combers for removal of smaller size neps towards producing yarns meeting international quality standards

Development of a compact yarn spinning system for yarn quality improvement

Detection and standardization of sensitising disperse dyes by chromatographic techniques

A study on the effect of extra sensitive yarn imperfections on fabric appearance

Design and development of energy management information system for textile industry - phase II

A study on the influence of fibre and yarn parameters on lint shedding propensity

Development of a technology package for speciality polyester fibres

Development of energy efficient twisting system for two for one twisters

Online monitoring of yarn quality on weft knitting machines

Disposal or processing of textile sludge

Study on chromium in gin lint due to chrome composite leather clad rollers in ginneries

Development of an attachment for producing elastane core yarn on rotor spinning machine.

Interaction of the properties of individual cotton fibres in a blend

Evaluation of knitting behaviour and performance of knitted fabrics during garment manufacturing using artificial neural network

Development of functional spacer fabrics for medical inlays in orthopedic shoes

Design and development of a hernia mesh

Development of bifurcated vascular grafts

Cut-resistance technical fabrics spectra filament yarns

Development of speciality 3D compression bandage for lymphedema

Breathability of woven surgical gowns treated with nano finishes (Anti microbial & blood repellent finishes)

Development of spunsilk garments made of hollow yarn

Development of barbed, bi-directional surgical sutures

Development of spunlace non-woven wound dressings using bamboo fibres

### **Jute Manufactures Development Council**

Manufacture of different jute and jute blended yarns fabrics (furnishing & upholstery) for home textiles / secondary apparels and other jute diversified products

Application of functional chemical finishes for improving of the functional properties of jute-based technical Textiles.

### **United Nations Development Programme**

Betterment of farmers through promotion of more remunerative fine jute fibre cultivation and creation of direct grower - mill links

Quality assurance for decentralised and organised jute sectors

### **Office of the Development Commissioner for Handlooms**

Design and development of a high production handloom

Design and development of a jacquard card repeating machine for handloom industry

### **Petroleum Conservation Research Association**

Design and development of energy efficient control system for humidification plants in textile mills

Energy conservation in overhead cleaners used in textile industry

Design and development of a microcontroller based energy saving and information system for air compressors used in textile mills

### **Department of Science and Technology**

Design and development of a tester to measure the processing propensity

Development of new textile effluent treatment technology towards zero sludge

Design and fabrication of an instrument to assess the barrier properties of operation theatre surgical apparels with specific reference to blood and other body fluids

### **Ministry of Communication and Information Technology, Department of Information Technology**

Study on the application of information technology in textile industry pertaining to SME sector

### **Naval Physical and Oceanographic Laboratory, Ministry of Defence**

Development of 3D fabric using para-aramid filament yarn

Development of high performance polymer fabric tapes and polymer fibre ropes

### **Ministry of Power (Bureau of Energy Efficiency)**

Study for setting up of standards & norms for designated consumers in textile industry

### **Vikram Sarabhai Space Centre (Indian Space Research Organisation)**

Development of tricot knitting technology for 1.5 m wide gold plated molybdenum wire metallic mesh for large aperture unfurlable space antennas

Development of polyester preforms for membrane Bellowfram

Weaving of ultra high molecular weight polyethylene fabrics for radiation shielding tiles.

Development of silicon carbide fabric for ceramic matrix composite to be used in space application

3 - Dimension carbon fibre preform for space application.

### **Government college of Engineering & Textile Technology - Serampore**

Design and development of a weavability tester

### **Institute of Jute Technology**

Development of fire retardant jute fabric