

Research Projects funded by the Ministry of Textiles, Government of India under the Research and Development Scheme.

ATIRA

1	Development of Nano Fibers based water filter to get safe and pure drinking water for human beings
---	--

SASMIRA

1	Development of Multi Purpose Shade Net for Water Harvesting
2	Smart shade-net through auto-regulation of Thermal and Light Radiation
3	Development of Biodegradable Agro textile products for Horticulture Application using Keratin based Waste Products
4	Biotransformation of naturally occurring phenolic compounds for development of eco-friendly Flame Retardants for imparting functionality to textiles.
5	Biological Synthesis of Bio-degradable Textile Polymer
6	Design and development of an instrumental set up for measuring the wind blockage percentage of horticultural wind break nets
7	Establishment of methodology for green processing for Cotton using Supercritical Carbon Dioxide Technology
8	Development of Next Generation Thermochromatic Thermoregulatory Agrotextile for Horticulture Application
9	Design and Development of low cost reusable sanitary pads for Indian women
10	Design & development of a digital instrument for measuring the thermoregulatory properties of textiles

SITRA

1	Development of Nanoparticle based transdermal patches of selected cardiovascular drugs
2	Development of a anterior cruciate ligaments (ACL) using textile materials.
3	Development of indigenous viral barrier fabric
4	Polyester vascular graft implant-process optimization and production scale up.
5	Development of Eco-clothing by greener reduction process of natural indigo dye.

WRA	
1	Development of innovative sportech products such as parachute fabric , sailing clothes, ballooning fabrics, high adventure sportswear etc. using low energy, environment friendly melt application for new entrepreneurs in sportech sector
2	Development of Novel Detergent Formulation for wool with immobilized enzymes for enhancing machine wash ability of wool fabric
3	Development of active fitness clothing like gym and yoga wear with infrared thermal reflecting property to enhance body fitness
4	Synthesis of water soluble fluorescent colorants for high visible hydrophilic textile substrates
5	Development of sports gears (inner wears, socks, bands, leggings etc.) with controlled release microencapsulated natural essential, herbal oils for therapeutic benefits including protection of health, skincare and recovery of injuries and hygiene of sportsperson.
6	Synthesis of optical whiteners with good photo stability and improvements in the bleaching processes to produce photo stable bright white and pastel shades woollen casual fashion knitwear, sports and leisurewear products and carpets using Indian and other cheaper imported qualities of wool
7	Development and application of eco friendly microencapsulated moth repellent and antimicrobial finish for pashmina product in decentralised sector.
8	To develop a smart indigenous sleeping bag with heating property for adventure/high altitude sports
9	Development of Waterproof Breathable Sportswear with desired functional properties by eco-friendly water based coating techniques
10	Development of membrane bioreactors as a solution for compact, high quality effluent treatment to achieve zero-discharge for decentralised woolien and carpet sector and common facility centres in India.

11	Development of Eco-friendly Natural Fibre Based Textiles (OEKO-TECH Products) with simultaneous Natural Dyeing and Natural Finishing and to establish Natural dye / finish Mark
BTRA	
1	Studies on effect of plasma treatment for adhesion improvement for coated technical textiles
2	Atmospheric pressure plasma treatment for enhancing the conducting properties of textiles doped with intrinsic conductive polymers.
3	Development of Test Method for Analyzing Hexavalent Chromium content in Dyes, Pigments and Textile Auxiliaries
4	Melt spinning of PVDF/ZnO nanostructure hybrid filament for wearable smart textile.
5	Development of cotton waste based oil absorbent for oil spill clean-up.
6	Nanofiber Application to Enhance the Anti-clogging properties of Geotextiles.
7	Studies on Radiation Induced Modification of Textile Materials
8	Mechanical properties, stability and structure of polymeric composites reinforced with functionalized fibres
9	Development of electronic servo control drive industrial TFO twister for heavy denier filament yarn
10	Analysis of Eco-management in Indian textile processing Industry
NITRA	
1	Development of protective work wear for cement porters
2	Development of multi layered flame & thermal resistance fabric for fire fighter clothing
3	Study to enhance Indian Apparel Exports
4	New approaches to reduce water consumption in textile wet processing
5	Development of fabric smoothness tester.
6	Development of specialty Embroidery yarn for application in stretchable fabric, like knitted fabrics.
7	Designing a Compressed air monitoring system to optimize energy consumption in a textile mill.

8	Development of value added product from different fibres produced in Himalayan Region (Basic Research)
9	Development of Air cleaner home textiles to reduce indoor air pollution.
MANTRA	
1	Development of alternative eco-friendly process for reduction clearing of dyed or printed polyester fabric using oxidation technique including advance oxidation.
2	Development of protective work Wear (gloves, socks) for Leptospirosis.
3	Energy modelling based benchmarking of stenter used in Textile Industries.
4	Effect of structural parameters of fibres and fabrics on properties of nonwoven fabrics
IJIRA	
1	Dyeing of Silk, Cotton and Art Silk with Natural Dye from plants of North Eastern Region for speciality dress materials of the region.