

NATIONAL TECHNICAL TEXTILES MISSION

Research Projects sanctioned in 1st MSG Meeting

S. No.	PI Name and Institute	Contact	Project Title	Cost (INR Cr.)	Duration (Years)
1	Dr.T.V. Sreekumar, BTRA	9004031170 director@btraindia.com	Development of Carbon Nanotube Reinforced Acrylic Precursors for Carbon Fibre	18.08	2
2	Prof Prakriti Tayaliya, IIT-B	9769742728 prakriti@iitb.ac.in	Biodegradable & bioactive nanofibrous face mask' under the research topic "Surface modification of Carbon Fiber	1.99	2
3	Prof Prakriti Tayaliya, IIT-B	9769742728 prakriti@iitb.ac.in	Carbon based Dermal Patch for Vitiligo Therapy	3.4	3
4	Dr.Ashwini K. Agrawal, IIT-D	9810585313 ashwini@textile.iitd.ac.in	High performance composite Fibres	27.52	3
5	Dr Prof.B. K.Behera, IIT-D	9818808423 behera@textile.iitd.ac.in	A technology platform for design and manufacturing of advanced and multi functional 3D woven Textile Structural Composites using High performance and natural fibres	20.09	2
6	Dr.Chandra Sekhar Sharma, IIT-H	8374461784 cssharma@che.iith.ac.in	Activated and Patterned Carbon Nanofibers based Advance Design Configuration for High Performance Lithium-Ion Batteries and Supercapacitors	0.93	3
7	Dr.Chandra Sekhar Sharma, IIT-H	8374461784 cssharma@che.iith.ac.in	Scaling up of electro- spinning process for nano- fibers	1.24	3
8	Prof. Sameer Khandekar, IIT-K	05122597038 dord@iitk.ac.in	Engineering Fibers for Fog Harvesting and Interfacial Solar Water Purification	1.55	3
9	Dr.K Rajkumar, IRMRA	8655095342 director@irmra.org	Development of Tyre Tread Compound using Graphene in combination with Carbon & Silica as a Reinforcing Filler for Reducing the Rolling Resistance (RR) and Improving Fuel Efficiency	1.22	2
10	Dr. PrakashVasudevan & Dr.L Amalarparamary, SITRA	9600975208 director@sitra.org.in	Design and development of facile high throughput needle less electrospinning set-up	1.9	2
11	Prof. Manoj S. Gaur, IIT-JAM	9414045867 director@iitjammu.ac.in	MicroRNA Diagnostic Kit using Doped Carbon Nanofibers	0.69	2
Total Value of projects sanctioned in 1st MSG meeting				78.61	

Research Projects sanctioned in 2nd MSG Meeting

S. No.	PI Name and Institute	Contact	Project Title	Cost (INR Cr.)	Duration (Years)
12	Dr. Bipin Kumar, IIT-D	9990240340 bipin@textile.iitd.ac.in	Knitting for Composite Preform Developments using Technical Yarns	1.2	1.3
13	Prof. Mangala Joshi, IIT-D	9818927946 mangala@textile.iitd.ac.in, mangalajoshi9@gmail.com	Development of Multifunctional Graphene incorporated High Molecular Weight Polyethylene (HMWPE) or High Density Polyethylene (HDPE) fibres by an alternative melt route	0.94	2.5
14	Dr. Bhanu Nandan, IIT-D	8800762528 nandan@textile.iitd.ac.in	Carbon Fiber-based functional electrode materials for energy storage applications	1.1	2.5
15	Prof. Vijay Narayandas Baheti, IIT-D	7507899702 baheti@iitd.ac.in	Development of EMI shielding and heat generating activated carbon fabrics from textile wastes	0.42	2
16	Dr Prof.B. K.Behera, IIT-D	9818808423 behera@textile.iitd.ac.in	Development of multifunctional structural geotextiles using Textile wastes and Hybrid fabrics	5.98	3
17	Dr. Mudrika Khandelwal, IIT-H	9966355510 mudrika@msme.iith.ac.in	Biodegradable self-sanitizing bacterial nano cellulose fabric for air and water filtration	0.5	2
18	Dr. (Prof.) Sireesh Saride, IIT-H	91 40 2301 6302 sireesh@iith.ac.in	Laboratory And Field Investigations on PET Geo grid-Reinforced Base/Sub base Courses.	1.94	3
19	Prof. B. Umashankar, IIT-H	9652505789 buma@ce.iith.ac.in	Use of geosynthetics in pavements over soft and expansive subgrades: A sustainable solution.	0.51	3
20	Asst. Prof. Nilanjan, IIT-KGP	8442953215 ndaschakladar@mech.iitkgp.ac.in	Development of biocompatible glass fibre composite for healthcare applications	2.03	2
21	Prof Swambabu Varanasi, IIT-KGP	9760434880 swambabu@che.iitkgp.ac.in	Synthesis of Carbon nanofibres from textile/cotton waste	0.63	1
22	Prof. Prasun Kumar Roy, IIT- BHU(Varanasi)	9910831172 pkroy.bme@iitbhu.ac.in	Neuroprotective Smart Textile for Preventing Cerebral Palsy: Countering Brain Injury in Children	0.58	2
23	Dr. Shaikh M. Mobin, IIT-INDORE	9713030406 xray@iiti.ac.in	Combating Pandemics through textiles: An Approach to Ease Viral/ Bacterial Infections using advanced Nano Fibrous fabrics	0.95	2
24	Professor Yogesh Sharma, IIT-Roorkee	01332284861 yogesh.sharma@ph.iitr.ac.in	Mass Production of High Performance Carbon Fibers and Nanofibric Separators by Electro-spinning Techniques for Rechargeable Batteries and Super-capacitors	1.3	2.3
25	Dr. Anil Kumar Mishra, IIT-Guwhati	9678069513 anilmishra@iitg.ac.in	Performance evaluation of Water Hyacinth as an alternate geotextile material.	0.21	2
26	Dr Manisha Sathe, DRDE, DRDO, Gwalior	9926640542	Next Generation lightweight, breathable Activated Carbon Fabric (ACF) & Nano web based multilayered chem.-bio facemask for protection against Toxic Chem-Bio Agents	1.5	2
27	Shri A.K. Saxena, ADRDE, DRDO, Agra	0562-2260023 director@adrde.drdo.in	PTFE coated Glass/Para-aramid fabric for large Inflatable Randomes	3.5	2
28	Shri A.K. Saxena, ADRDE, DRDO, Agra	0562-2260023 director@adrde.drdo.in	Development of Parachute material using high molecular weight/ high strength polyethylene yarns	3.37	2

29	Dr. Kaushik Ghosh, Institute of Nano Science and Technology, Mohali	8427017574 kaushik@inst.ac.in	Scalable Manufacturing of MXene / Graphene / 2D material Impregnated Hollow Flexible Carbon Fibers for Energy Storage and Conversion Applications	1.19	2.5
30	Dr. Raja Shunmugam, IISER, Kolkata	9748897367 sraja@iiserkol.ac.in	Design of fibre-like crosslinked high stable polymeric material to remediation of textile generated waste management	0.79	3
31	Dr. Pronobesh Chattopadhyay, Defence Research Laboratory, DRDO, Assam	9435183212 8755843333 pronobesh@dril.drdo.in	Insecticide incorporated Agronets: Green Technology to minimize the insecticide burden to biosphere	0.97	2
Total Value of projects sanctioned in 2nd MSG meeting				29.61	
Research Projects sanctioned in 3rd MSG Meeting					
S. No.	PI Name and Institute	Contact	Project Title	Cost (INR Cr.)	Duration (Years)
32	Dr. T V Sreekumar, BTRA	director@btraindia.com	Development of High Performance Gel Spun UHMWPE Fibres and Tapes for Bullet Proof and Geo-Grids/Geo –Composites Applications	6.14	2.5
33	Prof. Vijay Narayandas Baheti, IIT-D	7507899702 baheti@iitd.ac.in	Development of long lasting and biodegradable electrospun/ needle punch nonwoven composite mulch using natural fibrous wastes.	1.92	
34	Dr. Apurba Das, IIT-D	apurba@textile.iitd.ac.in; apurbadas65@gmail.com	Thermo-acoustic Insulation Textiles for Automotive	1.77	2
35	Dr. Abhijit Majumdar, IIT-D	majumdar@textile.iitd.ac.in	A Circular Approach for the Development of Durable Antibacterial and Moisture Management Polyester Fibres for Sports Textiles	10.34	3
36	Dr. Sireesh Saride, IIT-H	sireesh@ce.iith.ac.in	Development and Feasibility Studies on Drainage and Reinforcement Functions of 3D Geocomposites in Pavements	2.34	3
37	Dr. Anil Agarwal, IIT-H	anil@ce.iith.ac.in	Use of Perforated Basalt Fabric Reinforced Cementitious Matrix in Structural Strengthening Applications	0.92	3
38	Dr. Adinpunya Mitra, IIT-KGP	adinpunya@gmail.com	Evaluation of natural fibre based agro-textile products in protected eco-friendly structures for production of high value horticultural crops	1.75	2
39	Dr. Abhijeet Joshi, IIT-INDORE	abhijeet.joshi@iiti.ac.in	Functional textiles for tackling organophosphate insecticides, pesticides and nerve agents' toxicity	0.6	3
40	Dr. Debrupa Lahiri, IIT-Roorkee	debrupa.lahiri@mt.iitr.ac.in	Carbon nanotube reinforced polyethylene fiber and fabric for high strength application	0.41	2
41	Dr. Rajan Jha, IIT Bhubaneswar	rjha@iitbbs.ac.in	Fiber reinforced cotton and polyester photonics fabrics with thermal comfort and illumination functionality	0.72	3
42	Dr. Amit Jaiswal, IIT Mandi	j.amit@iitmandi.ac.in	Development of 2D nanomaterial-based photo thermally active antimicrobial nanocoated Fabrics and PPE	0.32	2
43	Dr. Amar Patnaik, MNIT Jaipur	apatnaik.mech@mnit.ac.in	Development of E-glass/Carbon textile reinforced hybrid polymer composites for wind turbine Blade application	0.41	3
44	Dr. Amar Patnaik, MNIT Jaipur	apatnaik.mech@mnit.ac.in	Development of Ceramic and UHMWPE Textile Based Hybrid Polymer Composite Armor	3.63	3
45	Dr. M.S.Parmar, NITRA	drmsparmar@nitratextile.org	Development of Specialized Firefighting Suit	8.9	3
46	Dr. Arindam Basu, NITRA	drbasu@nitratextile.org	Development of flame-retardant Nylon 66 yarn/fibre indigenously	2.6	3
47	Dr. Madappa VR Sivasubramanian, NIT, Puduchery	madappa@nitpy.ac.in	Polyethylene Engineered Cementitious Composites (PE-ECC) for High Resilient Infrastructure	0.71	3
48	Dr. Arunangshu Mukhopadhyay, NIT, Jalandhar	arunangshu@nitj.ac.in	Development and manufacture of Ultra High Molecular Weight Polyethylene (UHMWPE) nano-fabrics and its composite for reusable respiratory masks	0.55	1.5
49	Dr. Manisha Mathur, SASMIRA	mmti@sasmira.org,	Development of High Strength Cost effective Seamless Technical Circular Fabric from Heavy Denier Multifilament Yarns for Geotechnical Applications	7.02	3
50	Chandra Shekhar Malvi, Madhav Institute of Technology & Science, Gwalior	csmalvi@mitsgwalior.in	Development of Multi-layered Firefighter's suit for Protection against Thermal Hazards and Pressurized Steam	0.88	2
51	Dr. V. Gayathri, Thiagarajar College of Engineering, Madurai	principal@tce.edu	Development of smart cloth using carbon nano tube reinforced nano composites	0.83	2
52	Dr. A.K. Srivastava, (CSIR-AMPRI), Bhopal	director@ampri.res.in	Development Of Carbon Nanofiber Materials From Cow Dung/ Bio-sludges For Smart Fabric Textile And Selective CO2/H2 Energy Storage Applications By 3D Printing Technology.	0.77	3
53	Dr. Susanta Kumar De, Bidhan Chandra Krishi Viswa Vidyalaya, West Bengal	susantade_kalyani@yahoo.co.in	Use of Jute Agro Textiles as prospective mulching material to test the suitability of mango based intercropping systems towards increasing crop productivity and promotion of livelihood security for the backward farming community Red and Lateritic Zones of West Bengal	2.42	3

54	Dr. Sapna Gautam, C S K Himachal Pradesh Agricultural University, Palampur	gautams88@yahoo.com	Sustainable use of unconventional fibres of Indian Himalayas for Agro textiles	3.15	3
Total Value of projects sanctioned in 3rd MSG meeting				59.1	
Research Projects sanctioned in 4th MSG Meeting					
S. No.	PI Name and Institute	Contact	Project Title	Cost (INR Cr.)	Duration (Years)
55	Dr. Prasanta Kumar Panda, BTRA	nanolab@btraindia.com	Development of alkaline resistance polyester for the geosynthetic applications	3.22	3
56	Dr. Asim Tewari, IIT-B	asim.tewari@iitb.ac.in	Hydrogen pressure vessel manufacturing using Textile based Composites – TeCoPV India	24.34	3
57	Dr. R. S. Rengasamy, IIT-D	rsr@textile.iitd.ac.in	Mission for Developing Aerogels Based Textile Materials for Civilian, Industrial and Defense Applications.	5.46	2
58	Prof. Vijay Narayandas Baheti, IIT-D	7507899702 baheti@iitd.ac.in	Development of metallized textiles for applications in personal protective equipment.	0.5	2
59	Dr. Ishan Sharma, IIT-K	ishans@iitk.ac.in	Development of UHMWPE Fibers and Disentangled Melt for impact mitigation	0.65	1
60	Dr. Prakash Vasudevan, SITRA	director@sitra.org.in	Development of natural herbal extract coated seed protection bag using natural fiber with long lasting mechanical and insecticidal properties	0.5	1
61	Dr. Chandra Sekhar Tiwary, IIT-KGP	chandra.tiwary@metal.iitkgp.ac.in	Development of Strong and multifunctional (fire Resistant/Anti-Bacterial/Hydrophobic) fabric Using Graphene (Activated Carbon from agricultural Waste) and White-Graphene (hBN) Composite with research to product goals	1.69	3
62	Dr. Amit Shaw, IIT-KGP	abshaw@civil.iitkgp.ac.in	Ramie fibre in defence applications: Development of low-cost protective units	0.13	1
63	Dr. Sarang Gumfekar, IIT-Ropar	director@iitpr.ac.in	Development of Indigenous Encapsulated Phase Change Material (PCM)-based Active Wear Textiles and Demonstration of Commercial scale Manufacturing	19.61	2
64	Prof. G. Madhavi Latha, IISc Bengaluru	madhavi@iisc.ac.in	Design of Reinforced Earth (RE) Retaining wall & RE Abutments for HSR and Railway applications	0.5	1
65	Dr. K. Muthukumar, NIT Trichy	kmk@nitt.edu, drkmknitt@gmail.com	Municipal Solid Waste (Soil Like Material) and Geotextile Interaction Study for Pavement Subgrade and Embankment Applications in Soft Ground	0.3	1
66	Dr. M.S.Parmar, NITRA	drmsparmar@nitratextile.org	Cellulose-based indigenous high Clo value and low-density surface modified natural fibre for developing thermal layers of extreme cold climate clothing	1.56	3
67	Dr. Arindam Basu, NITRA	drbasu@nitratextile.org	Development of 3D High Performance Knitted Sports Textiles with Thermo-Physiological Comfort and Impact Protective Properties	1	1.5
68	Dr. Arindam Basu, NITRA	drbasu@nitratextile.org	Development of Crop cover, mulch, soil protection fabrics and other products using Sun hemp and Banana Fibre	1	1.5
69	Dr. V. Senthilkumar, NIT, Puducherry	senthilkumar.v@nitpy.ac.in	Design, Development and Performance Assessment of Coir Geotextile Barriers for Landslide Mitigation	0.29	1
70	Ravi Prakash Singh, SASMIRA	ed@sasmira.org	Development of Energy Responsive Agrotexile for low cost opportunities to grow off-season vegetable/fruits	0.5	1
71	Dr. KK Misra, WRA	wra@wraindia.com	Development of eco-friendly natural fibres based sustainable agrotexiles for packaging of agro products with protection against rodents, microorganisms including bacteria, fungi and viruses and UV repellent properties	1.79	2
72	Dr Laxmikanta Nayak, ICAR, Kolkata	laxmikant8495@rediffmail.com	Development of jute bags for protection and quality preservation of stored seeds	0.5	1
73	Dr Nilimesh Mridha, ICAR, Kolkata	nilimesh.mridha@icar.gov.in	Natural fibre waste to planting growth media: development characterization and evaluation in soilless crop production system	0.49	1
74	Dr. Sanjeev Kumar, Punjab Engineering College	sanjeev@pec.edu.in	Lead free ferroelectric-PVDF electrospun fibre composites for energy harvesting textile applications	0.17	1
Total Value of projects sanctioned in 4th MSG meeting				64.2	
Total Overall value of projects sanctioned in MSG 1-4 meeting				231.52	