

**List of Research & Development Projects Approved Under NTTM**

| S. No. | Principal Investigator                      | Institute | Contact  | Project Title  | Cost (INR Cr.) | Duration (Years) | MSG |
|--------|---|-----------|--|--|----------------|------------------|-----|
| 1      | Dr.T.V. Sreekumar                           | BTRA      | 9004031170<br>director@btraindia.com                                 | Development of Carbon Nanotube Reinforced Acrylic Precursors for Carbon Fibre  | 18.076         | 3.5 #            | 1st |
| 2      | Prof Prakriti Tayaliya                      | IIT-B     | 9769742728<br>prakriti@iitb.ac.in                                    | Biodegradable & bioactive nanofibrous face mask' under the research topic "Surface modification of Carbon Fiber  | 1.985          | 4 #              | 1st |
| 3      | Prof Prakriti Tayaliya                      | IIT-B     | 9769742728<br>prakriti@iitb.ac.in                                    | Carbon based Dermal Patch for Vitiligo Therapy   | 3.399          | 4.5 #            | 1st |
| 4      | Dr.Ashwini K. Agrawal                       | IIT-D     | 9810585313<br>ashwini@textile.iitd.ac.in                             | High performance composite Fibres  | 27.52          | 4.5 #            | 1st |
| 5      | Dr Prof.B. K.Behera                         | IIT-D     | 9818808423<br>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                 | 20.088         | 3 #              | 1st |
| 6      | Dr.Chandra Sekhar Sharma                    | IIT-H     | 8374461784<br>cssharma@che.iith.ac.in                                | Activated and Patterned Carbon Nanofibers based Advance Design Configuration for High Performance Lithium-Ion Batteries and Supercapacitors  | 0.9309         | 3.5 *            | 1st |
| 7      | Dr.Chandra Sekhar Sharma                    | IIT-H     | 8374461784<br>cssharma@che.iith.ac.in                                | Scaling up of electro- spinning process for nano- fibers   | 1              | 3.5 #            | 1st |
| 8      | Prof. Sameer Khandekar                      | IIT-K     | 05122597038<br>dord@iitk.ac.in                                       | Engineering Fibers for Fog Harvesting and Interfacial Solar Water Purification   | 1.55           | 4 #              | 1st |
| 9      | Dr.K Rajkumar                               | IRMRA     | 8655095342<br>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 | 1.2227         | 2                | 1st |
| 10     | Dr. PrakashVasudevan & Dr.L. Amalarparamary | SITRA     | 9600975208<br>director@sitra.org.in                                  | Design and development of facile high throughput needle less electrospinning set-up  | 1.8965         | 3 ##             | 1st |
| 11     | Dr. Dharitri Rath                           | IIT-JAM   | 0191-274-1141<br>dharitri.rath@iitjammu.ac.in                        | MicroRNA Diagnostic Kit using Doped Carbon Nanofibers  | 0.6947         | 2.5 *            | 1st |
| 12     | Dr. Bipin Kumar                             | IIT-D     | 9990240340<br>bipin@textile.iitd.ac.in                               | Knitting for Composite Preform Developments using Technical Yarns  | 1.2092         | 3.3 #            | 2nd |
| 13     | Prof. Mangala Joshi                         | IIT-D     | 9818927946<br>mangala@textile.iitd.ac.in,<br>mangalajoshi9@gmail.com | Development of Multifunctional Graphene incorporated High Molecular Weight Polyethylene (HMWPE) or High Density Polyethylene (HDPE) fibres by an alternative melt route              | 0.9421         | 2.5              | 2nd |
| 14     | Dr. Bhanu Nandan                            | IIT-D     | 8800762528<br>nandan@textile.iitd.ac.in                              | Carbon Fiber-based functional electrode materials for energy storage applications  | 1.103          | 2.5              | 2nd |
| 15     | Prof. Vijay Narayandas Baheti               | IIT-D     | 7507899702<br>baheti@iitd.ac.in                                      | Development of EMI shielding and heat generating activated carbon fabrics from textile wastes  | 0.42           | 2                | 2nd |
| 16     | Dr Prof.B. K.Behera                         | IIT-D     | 9818808423<br>behera@textile.iitd.ac.in                              | Development of multifunctional structural geotextiles using Textile wastes and Hybrid fabrics  | 5.98           | 3.5 #            | 2nd |
| 17     | Dr. Mudrika Khandelwal                      | IIT-H     | 9966355510<br>mudrika@msme.iith.ac.in                                | Biodegradable self-sanitizing bacterial nano cellulose fabric for air and water filtration   | 0.584          | 2                | 2nd |
| 18     | Dr. (Prof.) Sireesh Saride,                 | IIT-H     | 91 40 2301 6302<br>sireesh@iith.ac.in                                | Laboratory And Field Investigations on PET Geo grid-Reinforced Base/Sub base Courses.  | 1.945          | 3                | 2nd |
| 19     | Prof. B. Umashankar,                        | IIT-H     | 9652505789<br>buma@ce.iith.ac.in                                     | Use of geosynthetics in pavements over soft and expansive subgrades: A sustainable solution.   | 0.594          | 3                | 2nd |
| 20     | Asst. Prof. Nilanjan,                       | IIT-KGP   | 8442953215<br>ndaschakladar@meh.iitkgp.ac.in                         | Development of biocompatible glass fibre composite for healthcare applications   | 2.03           | 3 #              | 2nd |
| 21     | Prof Swambabu Varanasi,                     | IIT-KGP   | 9760434880<br>swambabu@che.iitkgp.ac.in                              | Synthesis of Carbon nanofibres from textile/cotton waste   | 0.6325         | 1                | 2nd |

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| 22 | Dr. Shaikh M. Mobin,       | IIT-INDORE                                       | 9713030406<br>xray@iiti.ac.in                       | Combating Pandemics through textiles: An Approach to Ease Viral/ Bacterial Infections using advanced Nano Fibrous fabrics   | 0.955  | 2   | 2nd |
| 23 | Professor Yogesh Sharma,   | IIT-Roorkee                                      | 01332284861<br>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          | 1.302  | 2.3 | 2nd |
| 24 | Dr. Anil Kumar Mishra,     | IIT-Guwhati                                      | 9678069513<br>anilmishra@iitg.ac.in                 | Performance evaluation of Water Hyacinth as an alternate geotextile material.   | 0.2115 | 2   | 2nd |
| 25 | 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   | 2nd |
| 26 | Dr. AK Saxena              | ADRDE, DRDO, Agra                                | 9440534906<br>director.adrde@gov.in                 | PTFE coated Glass/Para-aramid fabric for large Inflatable Randomes  | 3.5    | 2   | 2nd |
| 27 | Dr. AK Saxena              | ADRDE, DRDO, Agra                                | 9440534906<br>director.adrde@gov.in                 | Development of Parachute material using high molecular weight/ high strength polyethylene yarns   | 3.37   | 2   | 2nd |
| 28 | Dr. Kaushik Ghosh          | Institute of Nano Science and Technology, Mohali | 8427017574<br>kaushik@inst.ac.in                    | Scalable Manufacturing of MXene / Graphene / 2D material Impregnated Hollow Flexible Carbon Fibers for Energy Storage and Conversion Applications                   | 1.19   | 5 # | 2nd |
| 29 | Dr. Raja Shunmugam         | IISER-Kolkata                                    | 9748897367<br>sraja@iiserkol.ac.in                  | Design of fibre-like crosslinked high stable polymeric material to remediation of textile generated waste management  | 0.7954 | 3   | 2nd |
| 30 | Dr.Pronobesh Chattopadhyay | DRL, DRDO, Assam                                 | 9435183212<br>8755843333<br>pronobesh@drf.drdo.in   | Insecticide incorporated Agronets: Green Technology to minimize the insecticide burden to biosphere   | 0.97   | 2   | 2nd |
| 31 | 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 | 3rd |
| 32 | Prof. Vijay Narayandas     | IIT-D  | 7507899702<br>baheti@iitd.ac.in                     | Development of long lasting and biodegradable electrospun/ needle punch nonwoven composite mulch using natural fibrous wastes.                                      | 1.92   | 3   | 3rd |
| 33 | Dr. Apurba Das,            | IIT-D  | apurba@textile.iitd.ac.in;<br>apurbadas65@gmail.com | Thermo-acoustic Insulation Textiles for Automotive  | 1.77   | 2   | 3rd |
| 34 | 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   | 3rd |
| 35 | 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   | 3rd |
| 36 | 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   | 3rd |
| 37 | 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   | 3rd |
| 38 | Dr. Abhijeet Joshi,        | IIT-INDORE                                       | abhijeet.joshi@iiti.ac.in                           | Functional textiles for tackling organophosphate insecticides, pesticides and nerve agents' toxicity  | 0.6    | 3   | 3rd |
| 39 | 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   | 3rd |
| 40 | Dr. Ranjan Jha,            | IIT-Bhubaneswar                                  | rjha@iitbbs.ac.in                                   | Fiber reinforced cotton and polyester photonics fabrics with thermal comfort and illumination functionality   | 0.72   | 3   | 3rd |

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| 41 | 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   | 3rd |
| 42 | 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   | 3rd |
| 43 | Dr. Amar Patnaik,               | MNIT-Jaipur  | apatnaik.mech@mnit.ac.in      | Development of Ceramic and UHMWPE Textile Based Hybrid Polymer Composite Armor  | 3.63  | 3   | 3rd |
| 44 | Dr. M.S.Parmar,                 | NITRA  | drmsparmar@nitratextile.org   | Development of Specialized Firefighting Suit  | 8.9   | 3   | 3rd |
| 45 | Dr. Arindam Basu,               | NITRA  | drbasu@nitratextile.org       | Development of flame-retardant Nylon 66 yarn/fibre indigenously   | 2.6   | 3   | 3rd |
| 46 | Dr. Madappa VR Sivasubramanian, | NIT-Puducherry   | madappa@nitpy.ac.in           | Polyethylene Engineered Cementitious Composites (PE-ECC) for High Resilient Infrastructure  | 0.71  | 3   | 3rd |
| 47 | Dr. Arunangshu Mukhopadhyay,    | NIT-Jalandhar  | arunangshu@nitj.ac.in         | Development and manufacture of Ultra High Molecular Weight Polyethylene (UHMWPE) nanofabrics and its composite for reusable respiratory masks   | 0.55  | 1.5 | 3rd |
| 48 | Dr. Manisha Mathur,             | SASMIRA  | mmt@sasmira.org               | Development of High Strength Cost effective Seamless Technical Circular Fabric from Heavy Denier Multifilament Yarns for Geotechnical Applications  | 7.02  | 3   | 3rd |
| 49 | Chandra Shekhar Malvi           | MITS-Gwalior   | csmalvi@mitsgwalior.in        | Development of Multi-layered Firefighter's suit for Protection against Thermal Hazards and Pressurized Steam  | 0.88  | 2   | 3rd |
| 50 | Dr. V. Gayathri                 | Thiagarajar College of Engineering, Madurai              | principal@tce.edu             | Development of smart cloth using carbon nano tube reinforced nanocomposites   | 0.83  | 2   | 3rd |
| 51 | 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   | 3rd |
| 52 | 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   | 3rd |
| 53 | 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   | 3rd |
| 54 | Dr. Prasanta Kumar Panda,       | BTRA   | nanolab@btraindia.com         | Development of alkaline resistance polyester for the geosynthetic applications  | 3.22  | 3   | 4th |
| 55 | Dr. Asim Tewari                 | IIT-B  | asim.tewari@iitb.ac.in        | Hydrogen pressure vessel manufacturing using Textile based Composites – TeCoPV India  | 24.34 | 3   | 4th |
| 56 | Dr Harun Venkatesan ##          | IIT-D  | rsr@textile.iitd.ac.in        | Mission for Developing Aerogels Based Textile Materials for Civilian, Industrial and Defense Applications.  | 5.46  | 2   | 4th |
| 57 | Prof. Vijay Narayandas Baheti,  | IIT-D  | 7507899702 baheti@iitd.ac.in  | Development of metallized textiles for applications in personal protective equipment.   | 0.5   | 1   | 4th |
| 58 | Dr. Manjesh Kumar,              | IIT-K  | ishans@iitk.ac.in             | Development of UHMWPE Fibers and Disentangled Melt for impact mitigation  | 0.65  | 1   | 4th |
| 59 | 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   | 4th |

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| 60 | 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   | 4th |
| 61 | Dr. Amit Shaw,             | IIT-KGP                    | abshaw@civil.iitkgp.ac.in                        | Ramie fibre in defence applications: Development of low-cost protective units   | 0.13  | 1   | 4th |
| 62 | Dr. Sarang Gumfekar,       | IIT-Ropar                  | director@iitrr.ac.in                             | Development of Indigenous Encapsulated Phase Change Material (PCM)-based Active Wear Textiles and Demonstration of Commercial-scale Manufacturing   | 19.61 | 2   | 4th |
| 63 | 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   | 4th |
| 64 | Dr. K. Muthukkumaran,      | NIT-Trichy                 | kmk@nitt.edu, drkkmknitt@gmail.com               | Municipal Solid Waste (Soil Like Material) and Geotextile Interaction Study for Pavement Subgrade and Embankment Applications in Soft Ground  | 0.3   | 1   | 4th |
| 65 | 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   | 4th |
| 66 | 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 | 4th |
| 67 | 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 | 4th |
| 68 | 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   | 4th |
| 69 | Ravi Prakash Singh,        | SASMIRA                    | ed@sasmira.org                                   | Development of Energy Responsive Agrotextile for low cost opportunities to grow off-season vegetable/fruits   | 0.5   | 1   | 4th |
| 70 | Dr. KK Misra,              | WRA                        | wra@wraindia.com                                 | Development of eco-friendly natural fibres based sustainable agro-textiles for packaging of agro products with protection against rodents, microorganisms including bacteria, fungi and viruses and UV repellent properties | 1.79  | 2   | 4th |
| 71 | Dr Laxmikanta Nayak,       | ICAR-Kolkata               | laxmikant8495@rediffmail.com                     | Development of jute bags for protection and quality preservation of stored seeds  | 0.5   | 1   | 4th |
| 72 | 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   | 4th |
| 73 | 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   | 4th |
| 74 | Dr. Apurba Das,            | IIT-D                      | apurba@textile.iitd.ac.in; apurbadas65@gmail.com | Cut, Slash, Stab, and Impact-Cut Resistant Textiles for Protection  | 4.11  | 3.5 | 5th |
| 75 | Dr Asha Syamakumari,       | CSIR-NCL                   | sk.asha@ncl.res.in 9420482376                    | Development of spinnable grade meta and para-aramid polymers and their fibre spinning   | 8.99  | 3   | 5th |
| 76 | Dr Shital S Palaskar,      | BTRA                       | pmebra@btraindia.com 7447494667                  | Plasma assisted waterless dyeing of high-performance textiles using supercritical fluid for application in technical textiles   | 11.73 | 3   | 5th |

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| 77 | Dr. Santosh K. Misra,       | IIT-K                         | <a href="mailto:skmisra@iitk.ac.in">skmisra@iitk.ac.in</a><br>8217227498                                     | Preparation and Production of Technical Textile "ElecTex" with Electro-responsive Properties for Improved Wound Healing Properties   | 0.54      | 2             | 5th |
| 78 | Dr. Rik Rani Koner,         | IIT-Mandi                     | <a href="mailto:rik@iitmandi.ac.in">rik@iitmandi.ac.in</a><br>9816978554                                     | Multi-Metal and Hetero atom Decorated Lignin Derived Carbon Fibers as Energy Storage Materials   | 0.8       | 2             | 5th |
| 79 | Dr. Ethayaraja Mani,        | IIT-M                         | <a href="mailto:ethaya@iitm.ac.in">ethaya@iitm.ac.in</a><br>9655498769                                       | 3D Printed protein-based textile fibers  | 1         | 1.5           | 5th |
| 80 | Dr. Soumyadip Choudhury     | IIT-KGP                       | <a href="mailto:soumyadip.choudhury@rtc.iitkgp.ac.in">soumyadip.choudhury@rtc.iitkgp.ac.in</a><br>8420489453 | Binder Free, Self-Supported Hierarchical Porous carbon Fiber For Inversely Vulcanized Li-S Battery Electrodes  | 0.55      | 1.5           | 5th |
| 81 | Dr. Supriya Pal,            | NIT-Durgapur                  | <a href="mailto:supriya.pal@ce.nitdgp.ac.in">supriya.pal@ce.nitdgp.ac.in</a><br>9434788154                   | Development of nanocomposite jute-geotextile for high-speed railway embankment system to enhance the durability and its remotely health monitoring using Internet of Things (IoT)            | 1         | 1.5           | 5th |
| 82 | Dr. Prasanta K Panda,       | BTRA                          | <a href="mailto:nanolab@btraindia.com">nanolab@btraindia.com</a><br>8850274854                               | Preparation of Lyocell CNT Composite High Strength Carbon Fibers   | 1         | 1 yr 4 months | 5th |
| 83 | Dr. Somenath Ganguly,       | IIT-KGP                       | <a href="mailto:deansr@hijili.iitkgp.ac.in">deansr@hijili.iitkgp.ac.in</a><br>03222 282037                   | Electrodes for charge storage by (i) electrochemical deposition of transition metal oxide on carbon cloth and (ii) electrospun fiber from lignin based sources with subsequent carbonization | 0.47      | 1             | 5th |
| 84 | Dr Kasilingam Rajkumar,     | IRMRA                         | <a href="mailto:rk@irmra.org">rk@irmra.org</a><br>8655095342   | Development of electro-spun carbon fibers using Bio-waste for energy storage application   | 0.5       | 1             | 5th |
| 85 | Dr Pratik Kumar ##          | IIT-JAM                       | <a href="mailto:vijayan.pallippattu@iitjammu.ac.in">vijayan.pallippattu@iitjammu.ac.in</a><br>9324625833     | Poly 3-Hydroxybutyrate (PHB)-based bioplastics (polymer textile): An alternative eco-friendly solution to commercial plastics for packaging industry   | 0.39      | 1             | 5th |
| 86 | Dr. Rupesh S. Devan,        | IIT-Indore                    | <a href="mailto:rupesh@iiti.ac.in">rupesh@iiti.ac.in</a><br>8308208880                                       | Textile electrodes coated with agri/bio-wastederived activated carbon for high-performance, eco-friendly, flexible all-solidstate supercapacitors  | 0.5       | 1             | 5th |
| 87 | Dr. R. Velmurugan,          | IIT-M                         | <a href="mailto:ramanv@iitm.ac.in">ramanv@iitm.ac.in</a><br>9791109144                                       | Studies on the Ballistic Energy Absorption of Polyethylene Coated Aramid Fabrics   | 0.27      | 1             | 5th |
| 88 | Dr. Hemlata Kapil Bagla,    | Kishinchand Chellaram College | <a href="mailto:hemlata.bagla@kccollege.edu.in">hemlata.bagla@kccollege.edu.in</a><br>9821420698             | Self-healing cement based on electro spun polymer composite nanofibers   | 0.5       | 1.5           | 5th |
| 89 | Dr. Sanjay Rangnat Dhakate  | CSIR-NPL                      | <a href="mailto:dhakate@nplindia.org">dhakate@nplindia.org</a><br>01145609388 ( M: 8375964184)               | Coal tar pitch-based fibers and its conversion into carbon fibers  | 2.4279872 | 2             | 6th |
| 90 | Dr. Mallika Datta           | GCET&T , Serampore            | <a href="mailto:dattamallika8@gmail.com">dattamallika8@gmail.com</a><br>9163058150                           | Development of natural fibre-based hybrid composite for acoustic insulation  | 0.9691    | 3             | 6th |
| 91 | Dr. Trishikhi Raychoudhury, | IIT -Jodhpur                  | <a href="mailto:trishikhi@iiti.ac.in">trishikhi@iiti.ac.in</a><br>91-7759076650                              | Performance evaluation of selected geotextile-based liner material against seepage loss in water conservation system under a wide range of temperature                                       | 1.49      | 1.5           | 6th |
| 92 | Dr. Bipin Kumar,            | IIT-D                         | 9990240340<br><a href="mailto:bipin@textile.iitd.ac.in">bipin@textile.iitd.ac.in</a>                         | Sustainable process optimization for high- performance fibrous waste management and valorization   | 8.8795776 | 3             | 6th |
| 93 | Dr. Arun Kumar Patra,       | UPTTI-Kanpur                  | <a href="mailto:arunkpatra1@gmail.com">arunkpatra1@gmail.com</a><br>9992397043                               | Functionalized Textiles for Germicidal applications  | 0.987704  | 1.5           | 6th |
| 94 | Dr. Ashutosh Sharma,        | IIT-K                         | <a href="mailto:ashutos@iitk.ac.in">ashutos@iitk.ac.in</a><br>9935397366                                     | Development of indigenous High-Performance Ultra High Molecular Weight Polyethylene (UHMWPE) fibres/shields for bullet proof applications in defence and civil domains                       | 3.3294    | 2             | 6th |

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| 95  | Dr. R Gnanamoorthy,           | IIT-M          | <a href="mailto:gmoorthy@iitm.ac.in">gmoorthy@iitm.ac.in</a><br><a href="tel:+919935397366">+91 9935397366</a>   | Additive Manufacturing of Technical Textiles for Sustainable Mobility- Agro Waste Based Materials and Product Design  | 0.99946  | 2         | 6th |
| 96  | Dr Premnath Ram Surwase,      | SASMIRA        | <a href="mailto:project@sasmira.org">project@sasmira.org</a><br><a href="tel:+919600087590">9600087590</a>   | Development of special 3D engineered fabric impregnated with graphene and speciality chemicals  | 0.8844   | 1         | 6th |
| 97  | Dr Anand Kishore Kola,        | NIT-Warangal   | <a href="mailto:kola@nitw.ac.in">kola@nitw.ac.in</a><br><a href="tel:+9198702462623">0870-2462623</a> ,<br>(Mob): 91-9966541095  | Fabrication of multifunctional polypropylene doped graphene oxide incorporated polyaniline nanofiber for antistatic, anticorrosion and antimicrobial applications | 0.369454 | 1.5       | 6th |
| 98  | Dr. J Ramkumar ,              | IIT-K          | <a href="mailto:irkumar@iitk.ac.in">irkumar@iitk.ac.in</a><br><a href="tel:+9105122597546">0512-259-7546</a>   | Development of Prototype Melt-Spinning Machine for manufacturing Tri-lobal Cross-section Bi-Component Fibers  | 0.993168 | 2         | 6th |
| 99  | Dr. Sahil Bansal,             | IIT-D          | <a href="mailto:sahil@civil.iitd.ac.in">sahil@civil.iitd.ac.in</a><br><a href="tel:+918968054656">8968054656</a>   | Development of High-Performance Fiber- Reinforced Concrete for Building Applications  | 0.996    | 1.5       | 6th |
| 100 | Ms. Komal Kukreja,            | BTRA           | <a href="mailto:komaltalreja30@gmail.com">komaltalreja30@gmail.com</a><br><a href="tel:+919794945733">9794945733</a>   | paration of cellulose-based aerogels and its composite for thermal insulation application   | 0.5      | 1.5       | 6th |
| 101 | Dr. Archana Samanta,          | IIT-D          | <a href="mailto:archana@iitd.ac.in">archana@iitd.ac.in</a><br><a href="tel:+917011967800">7011967800</a>   | Development of optically responsive melt spun bi-component filaments from recycled polyesters for thermo-regulatory smart textiles                                | 0.5      | 1         | 6th |
| 102 | Dr. Shushil Kumar             | IIT-Roorkee    | <a href="mailto:Shushil@ch.iitr.ac.in">Shushil@ch.iitr.ac.in</a><br><a href="tel:+9101332284944">01332-284944</a>  | Conversion of coal tar pitch and natural fibre (lignocellulosic biomass) to carbon fibre  | 0.5      | 15 Months | 6th |
| 103 | Dr. Md. Vaseem Chavhan,       | NIFT-Telangana | <a href="mailto:vaseem_chavhan@nift.ac.in">vaseem_chavhan@nift.ac.in</a><br><a href="tel:+919885520876">9885520876</a>   | Development of biobased phase change material (PCM) microencapsulate thermoregulating finish for active wear application  | 0.4993   | 1         | 6th |
| 104 | Dr. Kothandaraman R,          | IIT-M          | <a href="mailto:rkraman@iitm.ac.in">rkraman@iitm.ac.in</a><br><a href="tel:+9104422574249">044-22574249/</a><br><a href="tel:+919444231700">9444231700</a>                       | Boron-doped diamond coated corrosion-resistant carbon materials for electro-organic synthesis, energy, and clean water applications                               | 6.999    | 3         | 6th |
| 105 | Dr. Lek haz Devulapalli, BTRA | BTRA           | <a href="mailto:soillab@btraindia.com">soillab@btraindia.com</a> /<br><a href="mailto:lekhaz.devulapalli@gmail.com">lekhaz.devulapalli@gmail.com</a><br>9959107673               | The Development of treated Geosynthetic reinforced Asphalt Pavements  | 6.5376   | 3         | 6th |
| 106 | Prof. Sandeep Verma,          | IIT-K          | <a href="mailto:sverma@iitk.ac.in">sverma@iitk.ac.in</a><br><a href="tel:+919935081810">9935081810</a>   | 3D Printed Technical Textiles for Defence Exosuits: Custom Fabrics for Physiological Monitoring and Decontamination Applications                                  | 7.13472  | 3         | 6th |
| 107 | Dr. Debayan Bhattacharya      | IIT-D          | <a href="mailto:debayanb@civil.iitd.ac.in">debayanb@civil.iitd.ac.in</a> ;<br><a href="mailto:debayan20@gmail.com">debayan20@gmail.com</a><br>+91 11 26548547;<br>+91 9687957134 | Performance based design of geosynthetic reinforced soil (GRS) walls and bridge abutments for high- speed railway (HSR) subjected to seismic loading              | 14.8924  | 3         | 6th |
| 108 | Dr. G. Krishna Prasad,        | ICAR-CIRCOT    | <a href="mailto:Krishna.G@icar.gov.in">Krishna.G@icar.gov.in</a><br><a href="tel:+91766642100">766642100</a>   | Development of High-Performance Woven Protective Gloves and Seamless Knitted gloves for Industrial Uses   | 1.21     | 2         | 6th |
| 109 | Miss. Shreyasi Nandy          | BTRA           | <a href="mailto:techstaffofficer@btraindia.com">techstaffofficer@btraindia.com</a><br><a href="tel:+919831675072">9831675072</a>   | Development of Flame Retardant Aircraft Interior Fabrics By Plasma Assisted Chemical Treatment  | 11.2824  | 3         | 7th |

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|------|-----------------------------|--|--|--|------------|-----|-----|
| 110  | Mrs. Deepali Plawat         | ATIRA  | <a href="mailto:deepali_dydirector@atira.in">deepali_dydirector@atira.in</a><br>8076915085           | Development of the Indigenous HEPA Filters using Nanofibre Technology  | 8.973      | 2   | 7th |
| 111  | Dr. Bijay Prakash Tripathi  | IIT-D  | <a href="mailto:bjtripathi@mse.iitd.ac.in">bjtripathi@mse.iitd.ac.in</a><br>8178263966               | Development of thermoregulating smart textiles with encapsulated nano/micro sized phase change materials for sportswear application  | 5.4445     | 3   | 7th |
| 112  | Dr. Rajiv K. Srivastava     | IIT-D  | <a href="mailto:rajiv@iitd.ac.in">rajiv@iitd.ac.in</a><br>9871851968                                 | Valorization of textile waste to value-added, reverseprocessable porous scaffolds for selective sorption and separation  | 2.5510584  | 3   | 7th |
| 113  | Dr. Sumit Sinha Ray         | IIT-D  | <a href="mailto:ssinharay@textile.iitd.ac.in">ssinharay@textile.iitd.ac.in</a><br>9748159620         | Indigenous development of meltblowing system for fabrication of waste plastic bottle derived nonwoven  | 3.37902    | 3   | 7th |
| 114  | Dr R. T. Durai Prabhakaran  | IIT-JAM  | <a href="mailto:durai.prabhakaran@iitjam.ac.in">durai.prabhakaran@iitjam.ac.in</a><br>7051102533     | Low-cost Prosthetics Design and Fabrication using Advanced Textile and Composites Technology   | 2.8782192  | 3   | 7th |
| 115  | Dr. Vinay Midha             | NIT-Jalandhar                                  | <a href="mailto:midhav@nitj.ac.in">midhav@nitj.ac.in</a><br>9815948608                               | Runoff Erosion Control using Jute and Coir Biaxial Stitch Bonded Nonwoven Geotextiles  | 2.1578     | 2   | 7th |
| 116  | Dr. Mukesh Bajya            | NIT-Jalandhar                                  | <a href="mailto:bajyam@nitj.ac.in">bajyam@nitj.ac.in</a><br>7014943972                               | Development of cost effective ballistic and stab resistance soft body armour by using different high-performance materials   | 1.884568   | 2   | 7th |
| 117  | Dr. Palaniswamy N.K         | NIT-Jalandhar                                  | <a href="mailto:nkpalaniswamy@nitj.ac.in">nkpalaniswamy@nitj.ac.in</a><br>9942373108                 | Solution Blow Spinning (SBS) of micro/nanofibre fabrics for air filtration: A potential and scalable technique alternative to Electrospinning  | 1.785      | 3   | 7th |
| 118  | Dr. Zunjarrao Bapuso Kamble | NIT-Jalandhar                                  | <a href="mailto:kamblezb@nitj.ac.in">kamblezb@nitj.ac.in</a><br>9340327716                           | Design And Manufacturing Of Advanced And Multifunctional Textile Structural Composite Materials Using Textile Waste  | 1.0598632  | 1   | 7th |
| 119  | Dr. Bratin Ghosh            | IIT-KGP  | <a href="mailto:bghosh@ece.iitkgp.ac.in">bghosh@ece.iitkgp.ac.in</a><br>9831064495                   | Design of efficient wearable textile antennas  | 0.7183488  | 2   | 7th |
| 120  | Dr. Sutapa Ghosh            | CSIR IICT Hyderabad                            | <a href="mailto:sgghosh@iict.res.in">sgghosh@iict.res.in</a><br>8309584340                           | Fabrication of Polymer Waste derived Carbon Nanofiber and Composite based Biodegradable Electrospun Membranes for Water purification and beyond  | 0.593      | 3   | 7th |
| 121  | Dr.T.Palanisamy             | NIT-Karnataka                                  | <a href="mailto:tpalanisamycivil@nitk.edu.in">tpalanisamycivil@nitk.edu.in</a><br>9994862226         | Pre-oriented carbon fibre grid for Pozzolan based Low energy power source  | 0.32516    | 3   | 7th |
| 122  | Dr. Anshul Faye             | IIT-Bhilai                                     | <a href="mailto:afaye@iitbhillai.ac.in">afaye@iitbhillai.ac.in</a><br>9589272087                     | Application of Bamboo fibre-reinforced composite components for sports goods   | 0.21288    | 2   | 7th |
| 123  | Dr. Chinnaiiah Sivakumar    | CSIR-CECRI                                     | <a href="mailto:ccsivakumar@cecri.res.in">ccsivakumar@cecri.res.in</a><br>9443289771                 | Fabrication of flexible conductive fibres/fabric for wearable electronic textiles  | 1          | 1.5 | 7th |
| 124  | Prof. Soumitra Satapathi    | IIT-Roorkee                                    | <a href="mailto:soumitra.satapathi@ph.iitr.ac.in">soumitra.satapathi@ph.iitr.ac.in</a><br>8126916483 | Development of Perovskite Solar Cells Based Smart E-Textiles   | 1          | 1.5 | 7th |
| 125  | Dr. Mrinal Kanti Mandal     | NIT-Durgapur                                   | <a href="mailto:mkmandal_che@nitdgp.ac.in">mkmandal_che@nitdgp.ac.in</a><br>9434788188               | Development of an IoT Based Organic-Inorganic Contaminants Removal System (CRS) for Purifying Domestic Wastewater through Constructed Wetland using Durable, Nano-Composite Jute-Geotextile Sandwiched LECA Cartridges | 0.9996444  | 1.5 | 7th |
| 126  | Prof. S. Ramakrishnan       | IIT-M  | <a href="mailto:sramki@iitm.ac.in">sramki@iitm.ac.in</a><br>9841093383                               | Design and development of fabric antibody embedded matrix for tuberculosis screening   | 0.5        | 1   | 7th |
| 127* | Dr. Hemant Kumar Shukla     | NAL (CSIR)                                     | <a href="mailto:hemant@nal.res.in">hemant@nal.res.in</a>   | Development of intermediate modulus grade carbon fibre.  | 77.9036 ** | 3   | 8th |
| 128  | Dr. T Gangopadhyay          | ATIRA  | <a href="mailto:tg@atira.in">tg@atira.in</a><br>9662018410   | Design and development of CFRP composites slotted waveguide antenna for space and ground applications  | 10.2954327 | 1.5 | 8th |
| 129  | Dr. Dipayan Das             | IIT Delhi                                      | <a href="mailto:dipayan@textile.iitd.ac.in">dipayan@textile.iitd.ac.in</a><br>9718448992             | Electroconductive Fabric for Health and Safety   | 3.361248   | 3   | 8th |
| 130  | Shri Ravindra V. Adivarekar | Institute of Chemical Technology (ICT), Mumbai | <a href="mailto:rv.adivarekar@ictmu.mbai.edu.in">rv.adivarekar@ictmu.mbai.edu.in</a><br>9821227276   | Development of material for Flame Retarding Textile applications   | 2.72261    | 3   | 8th |

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|-----|------------------------------|---|--|---|-----------|-----|-----|
| 131 | Dr. Mallika Datta,           | Government College of Engineering and Textile Technology, Serampore | <a href="mailto:dattamallika8@gmail.com">dattamallika8@gmail.com</a><br>9163058150   | Development of glass filament wound type-4 pressure vessels.  | 0.78      | 1   | 8th |
| 132 | Dr. Pandiaraj Manickam       | CSIR-CECRI  | <a href="mailto:mpraj88@gmail.com">mpraj88@gmail.com</a> ;<br><a href="mailto:pandiaraj@cecric.res.in">pandiaraj@cecric.res.in</a> | Conductive yarns embroidered e-textile wearable systems for health and sports application.                                  | 0.55548   | 3   | 8th |
| 133 | Dr. Murugan Veerapandian     | CSIR-CECRI  | <a href="mailto:vmurugan@cecric.res.in">vmurugan@cecric.res.in</a>   | Development of Seaweed-derived Cellulose and Phytochemicals as Cost-efficient Additive Composite for Medical-grade Textiles | 0.5148264 | 3   | 8th |
| 134 | Dr. Prithviraj Mukhopadhyay  | IIT Delhi   | <a href="mailto:prithviraj.m@mech.iitd.ac.in">prithviraj.m@mech.iitd.ac.in</a>   | Development of Spunlace Natural Fibre based Fabrics for Technical Textile Applications.                                     | 0.9999996 | 2.5 | 8th |
| 135 | Prof Arunangshu Mukhopadhyay | Dr. B R Ambedkar National Institute of Technology, Jalandhar        | <a href="mailto:arunangshu@nitj.ac.in">arunangshu@nitj.ac.in</a><br>9463283698   | Development of Nonwoven Composite with Metal-Organic Frameworks (MOFs) for Efficient Automotive Cabin Air Filtration        | 1         | 2.5 | 8th |

\* As per Administrative Committee.

# As per EPC.

## As per 7th MSG.

\*\*\*The Total amount is exclusive of GST @ 18% or extra as applicable and charges for make shift facility will be funded additionally as per actual, based on documentary evidence.

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**Machinery Proposal sanctioned under NTTM**

| S. No. | Principal Investigator | Institute          | Contact  | Project Title   | Cost (INR Cr.) | Duration (Years) | MSG |
|--------|------------------------|--------------------|--|---|----------------|------------------|-----|
| 1      | Mr. Madhu Sudan Dadu   | Colorjet India Ltd | <a href="mailto:msdadu@colorjetgroup.com">msdadu@colorjetgroup.com</a>                     | Development of a Wide-Format Digital Printer to Print the Build-Tech Applications   | 4.0549         | 1                | 8th |
| 2      | Dr. M S Parmar         | NITRA, Ghaziabad   | <a href="mailto:drmsparmar@nitratextile.org">drmsparmar@nitratextile.org</a><br>9810253731 | Development of Indigenous State-of-the-art Instruments to test Convective, Radiant and Conductive properties of Protective Textiles | 1.54976        | 2                | 8th |