



# **ANNUAL REPORT**

## **2022-23**

**NORTHERN INDIA TEXTILE RESEARCH ASSOCIATION**

(Linked to Ministry of Textiles, Govt. of India)

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# CONTENTS

PAGE No.

<b>1. Message from the Chairman, Council of Administration</b>	<b>1</b>
<b>2. From the Director General's Desk</b>	<b>3</b>
<b>3. NITRA's Services to its Clients - At a Glance</b>	<b>8</b>
<b>4. Organisation : Financial Performance and Membership</b>	<b>9</b>
<b>5. Research &amp; Development Activities</b>	<b>10</b>
<b>6. Inspection &amp; Consultancy Services</b>	<b>20</b>
<b>7. Testing Services</b>	<b>21</b>
<b>8. Training Services</b>	<b>26</b>
<b>9. Library and Information Services</b>	<b>28</b>
<b>10. Important Events and Happenings during 2022-23</b>	<b>30</b>
<b>11. Powerloom Service Centres</b>	<b>36</b>
<b>12. Annexes:</b>	
1) Members of the Council of Administration	<b>38</b>
2) Members of the Finance & Administrative Sub-Committee	<b>43</b>
3) Members of the Research Advisory Committee	<b>46</b>
4) List of Member Units	<b>50</b>
5) Staff Members	<b>53</b>
6) Research Papers Published and Presented	<b>61</b>
7) Training Programs, Workshops and Seminars Conducted	<b>66</b>
8) Inspection & Consultancies Services	<b>68</b>
9) Staff Participation in HRD Programs	<b>71</b>
10) Additional Services to NITRA Members	<b>73</b>
11) Journals Subscribed by NITRA Library	<b>74</b>
12) Journals Received on Complimentary Basis	<b>75</b>
13) Placement of students of NITRA Technical Campus	<b>76</b>
<b>13. Auditor's Report &amp; Balance Sheet</b>	<b>79</b>

## MESSAGE FROM THE CHAIRMAN COUNCIL OF ADMINISTRATION



**Dear Patron,**

It is a matter of great pleasure for me to speak a few words as the Chairman of India's leading textile research association NITRA. NITRA has not only been providing R&D and other technical support to Indian textile and clothing industry since its inception in 1974 but is also continuing to serve the industry in a diversified & sustained manner year after year. The best part of NITRA is that without getting complacent for what they have achieved, their pursuit for excellence is continuous hence the organization is growing at a steady pace. I duly credit NITRA's valued clientele and efficient workforce for this achievement.

I am very happy to say that in one of the most significant happenings during this reported period, NITRA became glorified being awarded the CII Industrial Innovation Awards 2022. NITRA is ranked amongst the Top 3 Innovative Research Institutes amongst all research institutes in India by India's prime industry body Confederation of Indian Industry (CII). NITRA management duly acknowledges the contribution of its esteemed patrons and all other associated with NITRA for this outstanding achievement.

In another important event, with the assistance of National Technical Textile Mission (NTTM), MoT, GoI, NITRA and ITTA jointly organized a National Conclave on Technical Textiles - Protech in November, 2022 at India Habitat Centre, New Delhi. The conclave was inaugurated by the Chief Guest Ms. Rachna Shah, IAS, Secretary Textiles. She also inaugurated the exhibition where more than 20 companies involved in Technical Textiles manufacturing participated. Also shared dias were Sh. Rajeev Saxena, IRSS, Jt. Secretary, Textiles, Ms. Roop Rashi, IA &AS, Textile Commissioner, Sh. Raj Kumar Jain, Chairman, NITRA, Dr. Arindam Basu, Director General, NITRA, Sh. Amit Agrawal, Chairman, ITTA and Dr. Anup Rakshit, Executive Director ITTA. About 450 professionals related to technical textiles especially Protech participated.

Among other significant happenings during this period, Shri Rajeev Saxena, IRSS, Joint Secretary, MoT, GoI visited NITRA for having a look on the various state of the art facilities at NITRA such as laboratories, FIC (Focus Incubation Centre), Pilot plants for Spinning & Weaving and Natural Long Fibre. Besides, Dr. Arindam Basu, Director General NITRA addressed at many important forums including the 3<sup>rd</sup> Global Textile Conclave (GTC) organized by CITI held at Hotel Marriot, Jaipur during March 2023. His views on TRAs commendable work in research & developments in diversified fields and approach of having a VISION OF 5 YEARS AHEAD were very much appreciated.

We are also happy to announce that a patent for “A process for preparation of regenerated bamboo fibre from indigenous bamboo” has been filed during the reported period. In addition, NITRA has signed 7 no. of MoU out of which two with Gencrest Bio Products (P) Ltd., Mumbai. First one is for working jointly on mutually agreed textile projects on sustainable fibres for their extraction / regeneration, processing and product development activities as project associate / industry partner and the second one being for transfer of developed technology to process raw banana fibre. The third MoU is signed with Central Pulp and Paper Research Institute, Saharanpur for joint research activities in pulp production & regenerated cellulosic fibre production. The fourth MoU signed with ITTA for jointly organizing webinars/exhibitions to promote technical textiles such as Protech and Mobiltech. Another MoU is signed with Govt. Polytechnic, Hisar (Haryana) for advising on implementation of quality education; better exposure to students; conducting industrial training for students and jointly organizing Seminars, Exhibitions, and Symbiosis etc. The sixth MoU signed was with Teraphilic Innoventures Pvt. Ltd. to develop various product using hemp fibre and work on extraction process.

Friends, I feel happy to inform that during the reported period NITRA scientists have carried out three R&D projects out of which one is completed and two are under progress. In addition to this, seven need-based projects are also recently sanctioned from Gol and other agencies. As many as twenty eight research papers are published and presented by NITRA scientists during the reported period. The other activities of NITRA i.e. technical consultancy, material quality evaluation, third party inspection and manpower training have also been quite satisfactory during the last one year.

NITRA Technical Campus has also done well during the reported period and successfully conducted B. Tech programs on Textile Technology, Computer Science & Engineering and Computer Science & Engineering (AIML). The seventh batch of students also passed out with excellent results and placed in renowned textiles and IT companies pan India. We are also happy that for the sixth consecutive year our students featured in university top ten for textile category and won honor medals.

While I conclude, I express my sincere thanks to the textile and garment industries, Ministry of Textiles, Government of India, National Technical Textile Mission, Ministry of Agriculture and Farmers Welfare, Government of India, U.P. State Government and various para - military forces for patronizing NITRA's facilities by availing its wide range of services. I assure that, NITRA would continue to serve all its stakeholders in most fruitful manner.

**RAJ KUMAR JAIN**

## FROM THE DIRECTOR GENERAL'S DESK



During the financial year 2022-23, NITRA has done commendable work to support the Indian textiles & garment industry. Following are the highlights:

### Activities at a glance (2022-23)

<b>R&amp;D</b>		<b>Clientele</b>	
Projects completed	01	Clients served	1221
Projects ongoing	02	New clients inducted	286
Research papers	28		
		<b>PLSCs</b>	
<b>Consultancy services</b>		Technical assistance/consultancies	59
Inspection Services	86	Design developed	24
Technical consultancies	20	Liaison visits/Survey carried out	2200
Technical opinions & defect analysis	11	(No. of units covered)	
		Sample tested	3506
<b>Testing services</b>		Persons trained	995
Quality evaluation in NITRA labs	7136	Clients served	565
		New clients added	210
<b>Training services</b>			
Manpower training programs	19		
Personnel trained by NITRA	873		

### 1. Research & Development Cell

Govt. Sponsored completed Projects:

- Development of regenerated cellulosic fibres from Indian bamboo

Government Sponsored On-going Project:

- Development of Jute composite for automotive acoustic insulation and other uses

Recently sanctioned Projects:

- Socio economic development of SC/ST (submitted to Deptt. of Science & Technology, Govt. of India)
- Development of Ceramic and UHMWPE Textile Based Hybrid Polymer Composite Armour
- Development of flame retardant Nylon 66 yarn/ fibre indigenously

- Development of Crop Cover, mulch, soil protection fabrics and other products using Sunnhemp and Banana Fibre
- Development of 3D High Performance Knitted Sports Textiles with Thermo physiological Comfort and Impact Protective Properties

Publications: 9 (Including with other divisions)

Technical Consultancy: 7 (Including with other divisions)

## 2. Chemical & Quality Evaluation Division

Government Sponsored On-going Project:

- Development of molten metal splash resistant unique jute blend work wear for steel industry workers

Recently Sanctioned Projects:

- Cellulose based indigenous high Clo value and low density surface modified natural fibre for developing thermal layers of extreme cold weather clothing
- Development of Specialized Firefighting Suit

Publications: 22 (Including with other division)

Training Program: 5

## 3. Engineering Division

Technical Consultancy: 14 (including with other divisions)

## 4. Environmental Engineering Division

Technical Consultancy: 1 (including with other divisions)

## 5. Garment Centre

Training Programs: 9 (including with other divisions)

## 6. Marketing & Publication Division

Training Program: 1 (with other division)

## 7. Mechanical Processing (Spg. & Wvg.) Division

Technical Consultancy: 7 (including with other divisions)

Inspection: 86 (Including with other divisions)

Training Program: 1 (with other division)

## 8. Physics & Quality Evaluation Division

Inspection: 78 (including with other divisions)

Training Programs: 1 (including with other divisions)

## 9. Software Development Centre

Publications: 5

Training Program: 5

### Quality Evaluation at NITRA Laboratories

Altogether 7136 samples were tested at NITRA's NABL accredited laboratories during 2022-23. Following is the laboratory-wise break up for the same:

Physical Quality Evaluation Laboratory	-	2988 samples
Chemical Quality Evaluation Laboratory	}	- 3232 samples
Heat & Flame Testing Laboratory		
Polymer & Technical Textiles Laboratory	-	714 samples
Environment Laboratory & Eco Laboratory	-	202 samples

In addition to above, 11 fabric defect/damage analysis was carried out in various NITRA laboratories. More than 250 R&D samples were also tested in PQE and CQE labs.

### Publications

In the year under review, 28 research & technical papers are published/ presented in technical journals and forums.

### Memorandum of Understanding Signed

1. MoU was signed on March 4, 2023 with Govt. Polytechnic, Hisar (Haryana) for advising on implementation of quality education; better exposure to students; conducting industrial training for students and jointly organizing Seminars, Exhibitions, Symbiosis ect.
2. MoU was signed on October 12, 2022 with Teraphilic Innoventures Pvt. to develop various product using hemp fibre and work on extraction process.
3. MOU was signed on September 3, 2022 with Indian Technical Textiles Association (ITTA) for jointly organizing Webinars and Physical events/ exhibitions to promote the technical textiles primarily Protech & Mobiltech and disseminate knowledge to the key stake holders, industry and academia.
4. MOU signed on August 30, 2022 with Gencrest Bio Products Private Limited, Mumbai for transfer of developed technology to process raw banana fibre.
5. MOU and Non-Disclosure Agreement was signed on June 8, 2022 with Gencrest Bio Products Private Limited, Mumbai for working jointly on mutually agreed textile projects on sustainable fibres for their extraction/ regeneration, processing and product development activities as project associate/ industry partner.

6. MoU was signed on April 8, 2022 with Central Pulp and Paper Research Institute, Saharanpur for joint research activities in pulp production & regenerated cellulosic fibre production.
7. MoU & Non-disclosure Agreement was signed on November 4, 2023 with Polygiene Group at Styrmansgatan, Sweden with an aim to develop next generation ecofriendly antimicrobial technology. It was mutually decided to start working on this project entitled "Citron".

### **Power loom Service Centres**

In order to strengthen the decentralized power loom sector, NITRA rendered various value added services through eight Power Loom Service Centres located at Tanda, Kanpur, Meerut, Gorakhpur, Varanasi (all in U.P.), Panipat (Haryana), Ludhiana (Punjab) and Bhilwara (Rajasthan). (For details refer chapter Power loom Service Centres).

### **Patents**

Following patent was filed during the year:

A patent has been filed for "A process for preparation of regenerated bamboo fibre from indigenous bamboo". Patent Application No. is 20211029728 dated 24.05.2022.

### **Important Events and Happenings during 2022-23\***

- Director General, NITRA addresses at 3<sup>rd</sup> Global Textile Conclave (GTC) organized by CITI
- Director General, NITRA deliberates in National Workshop on Bamboo Sector Development and Bamboo Exhibition
- Director, NITRA awarded FTAAward
- NITRA at Technotex 2023, Mumbai
- NITRA Scientists Awarded Ph.D at the 41<sup>st</sup> Convocation of DEI, Agra
- Global Investors Summit in Lucknow
- NITRA Partners NISTI in Seminar on Khadi and Handlooms for Sustainable Fashion
- Research Advisory Committee (RAC) Meeting held at NITRA
- Director General, NITRA visited at India ITME 2022
- NITRA ranked amongst the Top 3 Innovative Research Institutes in India by CII
- NITRA Organizes National Conclave on Technical Textiles – Protech
- Dr. Mahadev Datta, Deputy Director, National Jute Board, Kolkata visits NITRA
- Director General, NITRA, shares his views on "Observations of the Stakeholders on Challenges & Opportunities" in a webinar
- Director General, NITRA Presents Invited Paper in 34<sup>th</sup> National Convention of Textile Engineers and National Seminar on "Innovative Textile Materials" also felicitated with "Eminent Engineer" honour
- Industrialist Raj Kumar Jain takes over as NITRA's New Chairman in 46<sup>th</sup> AGM
- Ms. Roop Rashi, IA & AS, Textile Commissioner Graces NITRA's 17<sup>th</sup> Convocation
- Director General graces celebration of "Royal Charter Day 2022" as Chief Guest
- Jt. Secretary, Ministry of Textiles, Govt. of India visits NITRA

- Director General, NITRA addresses at “Uttar Pradesh MSME Sammelan 2022 – Transforming MSME's Competitiveness” at Lucknow
- Director General, NITRA delivers a lecture in Technical Session at Indian Oil Corporation Ltd.
- Director General, NITRA Chairs a meeting at BIS New Delhi
- NITRA organizes training program for senior officials from Indian Oil Corporation Ltd.
- NITRA scientist presents research paper in Fibre Society's Spring 2022 Conference in Belgium
- DG chairs Textile Division Council Meeting of BIS
- NITRA Technical Campus places 100% students of Textile Technology branch
- NITRA Technical Campus organizes Annual Sports Meet 2023
- Parichaya 2023 - the annual Fresher's Party of NITRA Technical Campus held
- NTC organizes 8<sup>th</sup> Techno-Science Quiz 2022

*\*For details please refer chapter Important Events and Happenings during 2022-23.*

**Dr. ARINDAM BASU**

## NITRA's SERVICES TO ITS CLIENTS - AT A GLANCE

NITRA always believes in satisfying its clients. That is why it has been able to retain most of its existing clients and at the same time include new clients. Many clients have availed NITRA's services time and again. Data given below provides the information related to services rendered by NITRA to its clients during 2022-23.

Total clients served	:	1221
New Clients added	:	286

Approx. 20% of the clients at NITRA have availed services 5 times or more during the year.

- **Units availed services more than 100 times**

Unit	No. of Services
Tuv Sud South Asia Pvt. Ltd., Gurugram	136

- **Units availed services more than 30 and less than or up to 50 times**

Unit	No. of Services
Alcis Sports Pvt. Ltd., Noida	49
Arihant Spinning Mills, Malerkotla	47
K.K.K. Mills, Ludhiana	43
Bureau of Indian Standards, Gurugram	37
Hartree Energy System Pvt. Ltd., Delhi	35
Continental Surface Solution India Pvt. Ltd., Khandala	32
Shiv Shakti Spinners, Panipat	31
Mahavir Spin-Fab Pvt. Ltd., Kanpur	31

- **Total number of services availed by clients at NITRA**

Testing	2980
Consultancy/Training etc.	317
Total Services availed	3297

## **ORGANISATION: FINANCIAL PERFORMANCE & MEMBERSHIP**

### **Government Grant**

Ministry of Textiles (MoT), Govt. of India, deserves special thanks for helping NITRA by releasing timely grant for recurring expenditure. MoT released a grant of Rs. 200.00 lacs towards recurring expenditure.

NITRA received Rs.323.50 lacs grants for eight completed R&D projects from Ministry of Textiles, Govt. of India. NITRA received final grant of Rs.14.60 lacs for setting up Common Effluent Treatment Plant at Ajrakpur, Bhuj from Handicraft Mega Cluster Mission, New Delhi. NITRA also received grant of Rs.16.86 lacs being the second instalment for project “Development of jute composite for automotive acoustic insulation and other uses” from National Jute Board.

### **Council of Administration**

The management of the Association is entrusted to the Governing Council. At the 46<sup>th</sup> Annual General Meeting of the Association held on 10 September 2022, the new Council of Administration was constituted as given in Annex-1. The Council met three times during the year.

### **Finance & Administrative Sub-committee**

The Finance & Administrative Sub-Committee continued to look into the administrative and financial matters. All matters relating to administrative procedures, staff, matters relating to the members of association and financial matter were brought before this committee for discussion, guidance and approval. This committee met twice during this period. A list of the members of Finance & Administrative Sub-Committee is given in Annex-2.

### **Research Advisory Committee**

Research Advisory Committee meeting was held on 14<sup>th</sup> January 2023. This is an annual event at NITRA with a view to assess the progress of NITRA's ongoing R&D projects and to make necessary modification on those, if required. The committee also suggests areas to be considered for NITRA's future R&D activities. A list of the members of Research Advisory Committee is given in Annex-3.

### **NITRA Membership**

As on 31<sup>st</sup> March 2023, 129 textile and garment units have registered as NITRA members. The list of members is given in Annex-4.

## RESEARCH & DEVELOPMENT ACTIVITIES

As a policy matter, the aim for NITRA's research and development activities is to help the industry. So, at NITRA, ideas for most of the R & D projects are conceived only after interaction with the industry. Need based projects are earmarked for carrying out research and special emphasis is given to those projects which have industry acceptance as well as commercial viability.





In the year 2022-23, NITRA worked on three projects. Out of which one has been successfully completed during the period whilst work is in progress for the two projects.

Work done in the area of R&D during the year 2022-2023 is categorized as below:

### 1. GOVERNMENT SPONSORED PROJECTS

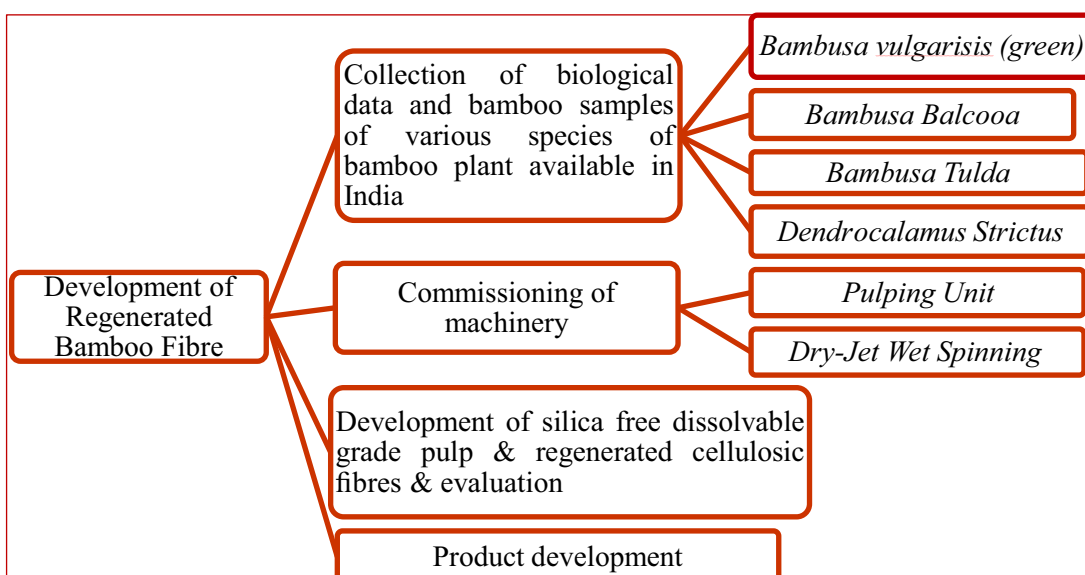
#### 1.1 Completed Project

- (i) Project title** : Development of regenerated cellulosic fibre from Indian bamboo (Sponsored by Ministry of Agriculture & Farmer's Welfare, Govt. of India)
- Objectives** :
- To collect data of all bamboo species available in India
  - To collect bamboo of each species available in different part of India
  - To Extract fiber from each type of collected bamboos
  - To compare and study fiber property of each species of bamboo fiber including silica content
  - To develop a process for removing silica from extracted fiber
  - Product development from the extracted fiber
- Research outcomes** :
- Biological data of various species of bamboo plant was collected and out of them four species of bamboo plant were procured.
  - Extraction of silica free bleached dissolvable grade pulp for four species have completed.
  - Comparison of four species of fiber has been carried out and optimization of the process parameters has done.
  - Regenerated cellulosic fibre from dissolvable grade pulp of all the four species has been developed.
  - Development of filament from four species of bamboo and evaluation of physical and chemical properties has been completed. (Refer Figure 1 for species of bamboo procured from Uttarakhand and Assam.
  - Patent has been filed for "Process for preparation of regenerated bamboo fibre from indigenous bamboo" Patent Application No. is 20211029728 dt. 24.05.2021
  - Project has been completed.

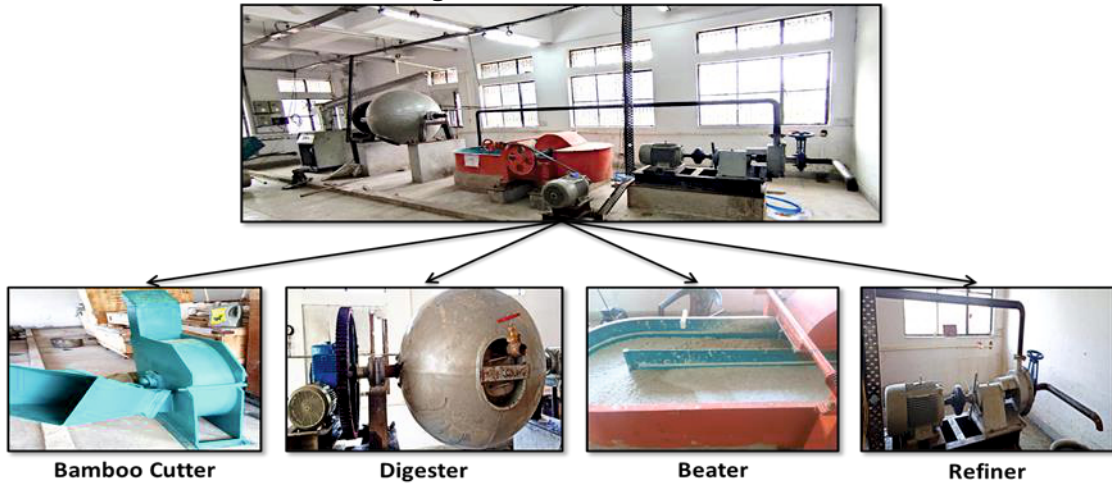
Name of bamboo species		Name of bamboo species	
Bambusa Green <i>Vulgaris</i>		Bambusa Tulda	
Bambusa Balcooa		<i>Dendrocalamus Strictus</i>	

**Fig. 1: Species of bamboo procured from Uttarakhand and Assam**

The process flow chart is given in figure 2. Pulping unit established at NITRA is shown in Fig. 3. Wet Spinning machine and flow diagram for production of Rayon Grade Bleached Pulp are shown in Fig. 4 and Fig. 5 respectively.



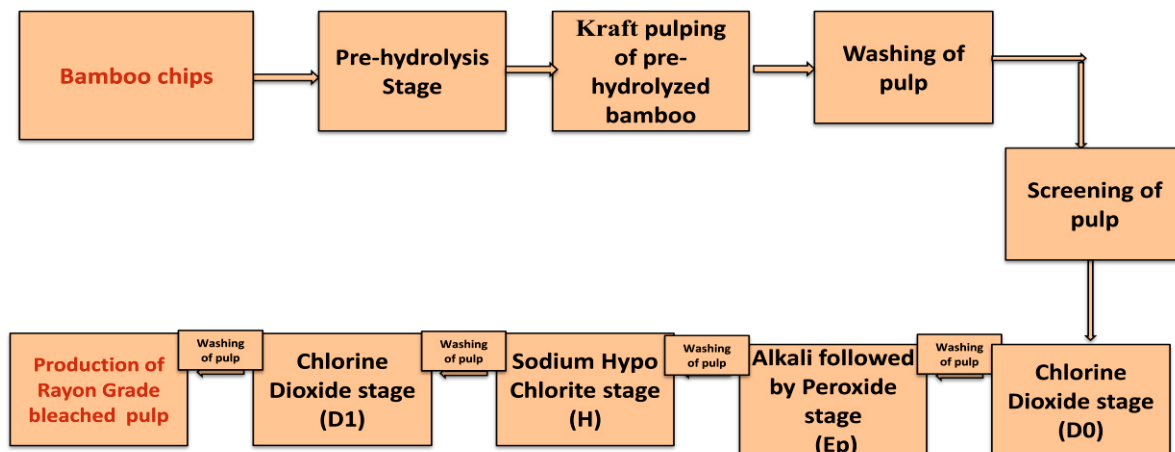
**Fig. 2: Process Flow Chart**



**Fig.3: Pulping unit at NITRA**



**Fig.4: Wet Spinning Machine**



**Fig. 5: Flow Diagram for Production of Rayon Grade Bleached Pulp**

## 1.2 Ongoing Projects

**(i) Project title** : Development of a molten metal splash resistance unique Jute blended work wear for steel foundry workers

**Objectives** :

- To develop or procure Jute and its blended fabrics having various weaves and weight
- To finish these fabrics with durable FR chemicals and their analysis
- To determine chemical, mechanical and safety performance properties
- To compare existing work -wear fabric with newly developed fabric for safety performance and other properties
- Techno-commercial feasibility through field trials in the user industry

**Progress of Work** :

- Literature and technical publications related to jute applications, properties, and current status were reviewed.
- Procurement of yarn & chemicals, various softeners and Flame Retardant chemicals were done.
- After the procurement of yarn, different fabric samples were developed using plain, leno and twill weaves.
- All developed samples were treated with FR chemicals.
- These developed fabric samples were evaluated for various chemical & physical properties and the molten splash test. (Refer Table 1)
- The selected fabric was also tested for radiant heat, contact heat, convective heat, and FR properties.
- Fabrics were also tested for comfort-related properties like air permeability and water vapour permeability

**Table 1: Test Results of Developed Fabric**

Test parameters	Requirement as per ISO 11612	Test results of developed fabric
Limited flame spread test (A1)	Flame shall not reach the upper or vertical edge, no flaming debris, No hole formation, after flame & after glow $\leq 2$ s	Meets the requirements
Limited flame spread test (A2)	Flame shall not reach the upper or vertical edge, no flaming debris, after flame & after glow $\leq 2$ s	Meets the requirements
Convective heat resistance (HTI <sub>24</sub> )	B1 (4.0 to <10 seconds) B2 (10 to <20 seconds) B3 (20 seconds or more)	B1 ( 9.0 seconds)

Test parameters	Requirement as per ISO 11612	Test results of developed fabric
Radiant heat resistance (RHT <sub>24</sub> )	C1 (7.0 to <20 seconds) C2 (20 to <50 seconds) C3 (50 to <95 seconds) C4 (95 seconds or more)	C1(19.8 seconds)
Molten metal splash (Aluminium)	D1 (100 to <200g) D2 (200 to <350g seconds) D3 (350g or more)	D1 (120g)
<b>Molten Metal Splash(Iron)</b>	<b>E1 (60 to &lt;120g) E2 (120 to &lt;200g) E3 (200g or more)</b>	<b>E3 (210g)</b>
Contact heat at 250°C	F1 (5.0 to <10 seconds) F2 (10 to <15 seconds) F3 (15 seconds or more)	F3(20 seconds)
Tensile strength, N, Minimum	300 (both side)	Warp: 540 Weft: 485
Tear strength, N, Minimum	10 (both side)	Warp: 40 Weft: 35
Air permeability, cc/sec/cm <sup>2</sup> (ISO 11056)	-	16.07
Water Vapour permeability, g/m <sup>2</sup> /day (ASTM E 96/E96M)	-	5108.88

- Developed fabrics pass a molten metal splash of iron as per ISO 9185 (ISO 11612).
- After testing, finalisation of the workwear design was done.
- Workwear samples were developed in collaboration with our project industry partner "M/s JCT Ltd.". (Refer Fig. 6)
- Preliminary trials have been started at Prime Steel Processors Private Ltd., Ludhiana, to get feedback from the workers on the various aspects of safety, usability, and comfort of the developed workwear. (Refer Fig.7)



**Fig. 6: Developed workwear samples**



**Fig. 7: Field trials in steel foundry**

**(ii) Project title :** Development of Jute composite for automotive acoustic insulation and other uses (Sponsored by National Jute Board, Gol)

**Objectives :** To design and develop composite material for automotive acoustic insulation

- To conduct trials in real life situation
- To standardize fibre component and process parameters for this specific use
- To attempt for use of jute non-wovens and composites in other automotive parts

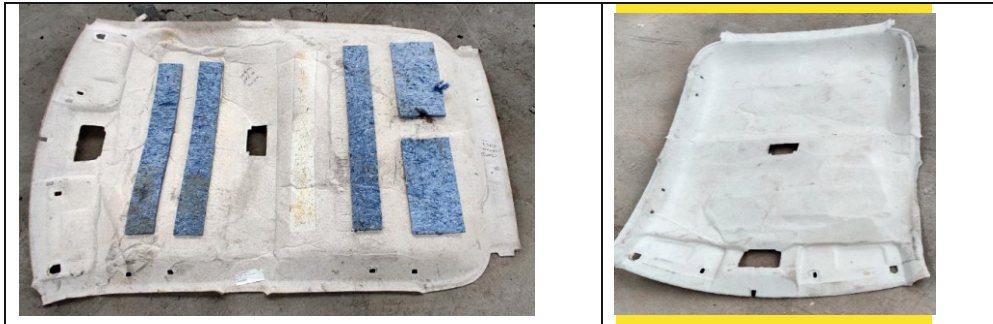
**Progress of work :** A Memorandum of Understanding and Non-disclosure agreement has been signed with industry partner for carrying out research activity related to the project.

- Procurement of Jute fibre and other blended fibre.
- Development of some of jute blended non woven material with industry partner.
- Trials are going on for the development of composites with different combinations of jute blends.
- Discussion for development of molded components of automotive are in progress. Brief details of progress highlights are given below:

1. A Memorandum of Understanding (MoU) and Non-disclosure agreement have been successfully executed with an esteemed industry partner. This collaboration helped us to develop the jute blended nonwoven samples trials with our aims to foster innovation and contribute to development of jute blended composites for acoustic insulation and other uses.
2. Procurement of Jute Fiber and Blended Fibers:  
During this period, substantial progress in securing the necessary resources for our project. This includes the successful procurement of jute fiber, as well as other blended fibers essential for research activities. Diversifying material resources, to explore the potential of jute blends and their applications.
3. Development of Jute Blended Nonwoven Materials:  
In conjunction with industry partner, significant strides have been made in the development of jute blended nonwoven materials. These materials hold great promise due to their eco-friendly nature, durability, and versatility. Research efforts have focused on optimizing the manufacturing processes and enhancing the performance characteristics of jute blended nonwoven materials for use in the automotive components.
4. Discussions on Automotive Molded Components:  
Discussions with industry regarding the development of molded components for the automotive sector are going on. These molded components, derived from jute-based materials and composites, have the potential to revolutionize the

automotive industry by offering better acoustic and eco-friendly alternatives to traditional materials.

Refer Fig. 8 & 9 for collected roof liner samples and Engine shield samples respectively, Fig. 10 for preparation of jute blended nonwoven samples, Fig. 11 for quality evaluation of Jute blended nonwoven fabric samples and Fig 12 for sound absorption coefficient (SAL) and sound transmission loss (STL).



**Fig. 8: Collected Roofliner samples**



**Fig. 9. Collected Engine shield samples**

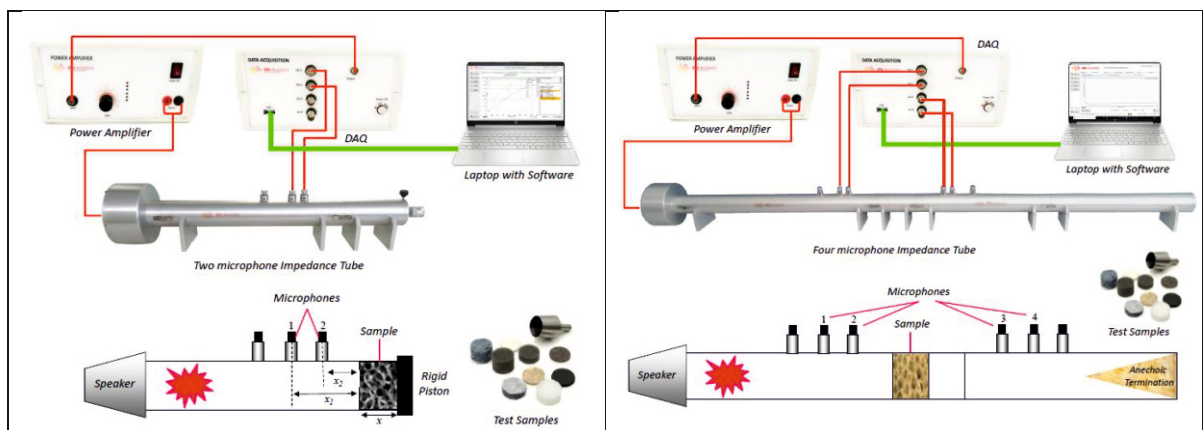




**Fig. 10: Preparation of jute blended nonwoven**



**Fig.11: Quality evaluation of Jute blended nonwoven fabric samples**



**Fig 12: Sound absorption coefficient (SAL) and sound transmission loss (STL)**

## 2. RECENTLY SANCTIONED PROJECTS

### **Sanctioned by DST, Govt. of India**

- Socio-economic development of SC/ST by providing training, technology and market to convert local resources to industrial products

### **Sanctioned by NTTM, Ministry of Textiles, Govt. of India**

- Development of Specialized Firefighting Suit
- Development of flame retardant Nylon 66 yarn/fibre indigenously
- Development of Crop Cover, mulch, soil protection fabrics and other products using Sunnhemp and Banana Fibre
- Development of 3D High Performance Knitted Sports Textiles with Thermo-Physiological Comfort and Impact Protective Properties
- Cellulose based indigenous high Clo value and low density surface modified natural fibre for developing thermal layers of extreme cold weather clothing
- Development of Ceramic and UHMWPE Textile based Hybrid Polymer Composite Armor jointly with MNIT, Jaipur

## **INSPECTION & CONSULTANCY SERVICES**

Technical consultancy & inspection are another important aspect of NITRA's multifarious activities. NITRA provides assistance to the industry in the form of technical consultancy for resolving their operational problems. The areas of expertise where NITRA offers consultancy solutions are feasibility study, system certification, infrastructure set up, valuations, manpower rationalization, energy audits, water audit, and product/process & design development etc. NITRA also offers third party inspection services to the industry.

Major areas of inspection & consultancy services offered during the period 2022-23 are given below:

### **Inspection Services**

- Third party inspection of Blankets, T-shirts, Gabardine, Coat combat, Serge, Woolen Jersey, Thermal vest, Angola shirtings, Cloth disruptive, Under pant thermal, Full Body Protector, Nycofabric, Cotton tape newar, Rucksack, Terry Towel, Water bottle, Rain Cape, Balaclava, Camouflage, Riot control helmet with visor and wire mesh, Gloves, Rain Poncho etc.

### **Consultancy Services**

- Poor Phenolic yellowing rating in acrylic yarn
- Setting up ZLD plant
- Pollution prevention and efficient water use in Panipat
- Breaking and loop skipping problem in sewing thread used in terry towel
- Consultancy on UP Govt. Textile Policy
- Energy audit
- Manpower audit
- Study on performance assessment of card using new card clothing development
- Energy Conservation Study in Composite Mill
- Energy Mapping study in Milk Plants
- Workload and Manpower Assessment Study in Spinning/ Weaving/ Processing of Denim Manufacturing Mill

\*Inspection & Consultancy services undertaken in the year 2022-23 are given in Annex-8.

## TESTING SERVICES

Testing or quality evaluation is one of the most important activities in the entire value chain of textile and garment industry. NITRA offers a wide range of testing facilities for fibre, yarn, fabrics, garments, dyes, chemicals and effluent in its well equipped NABL accredited six laboratories i.e. Physical lab, Chemical lab, Heat & Flame Testing lab, Polymer & Technical Textiles lab, Eco lab and Environment lab. NITRA continues to emphasize on doing accurate evaluation and delivering time-bound test results to its clients.

### PHYSICAL QUALITY EVALUATION LABORATORY

**No. of Commercial Samples Tested:** 2988

In addition to this, around 125 R&D samples were also tested.

#### **Type of Samples Received:**

Cotton, Polyester, Viscose, Nylon, Polypropylene, Jute, Bichhue Ghas, Hollow Fibres, Wool, Polyester wetting, Leaf & bark fibres, Silk, Cotton and Blended yarn, Sliver, Cord, Ropes, Filament yarn, Sewing threads, Industrial threads, Kite flying thread, Lycra belt, Tape, Cotton & Blended fabric. National flags, Canvas, Automotive fabrics, Laminated fabrics, T-shirts, Vest, Drawers, Biref, Blanket, Jersey, Serge, Sarees, Cardigan, Gloves, Mosquito net, Pillow, Quilt, Furnishing fabric, Socks, Jacket, Felton cloth, Carpet, Webbing, Towel, Bed sheets, Wool top, Mat, Rain coat, Garments, Protective, Non-woven fabrics, Lycra yarn, Topper pad, Scarf, Pile fabric, Felt, Rugs, Foam, Laminated foam fabric, Caps, Geo grid, Filter fabrics, 3 layer breathable fabric, Composites, Geo-textiles etc.

#### **Type of Tests Conducted:**

Fibre length, Denier, Strength, Tenacity, Crimp%, Fibre shrinkage, Fibre diameter, Fineness, Trash%, Neps/gm., Elongation, Cotton, Maturity, Fused Fibre, Yarn count, Yarn CSP, Twist, RKM, Hairiness, Uster Imperfections, Appearance Grade, Co-efficient of friction of yarn to yarn and yarn to metal surface, No. of filaments in yarn, Thermal shrinkage, Fabric/Garment's dimensional measurement, Thickness, GSM, Yarn count, Ends/picks, Coarse/Wales, Base/Biase, Fabric strength, Elongation, Tear & bursting strength, Stretch & Recovery, Puncture resistance, Seam strength/Seam slippage, Bond & Peel strength, Weave analysis, Stiffness, Abrasion, Pilling, Yarn on yarn abrasion, Yarn slub analysis, Crease recovery angle, Drape, Snagging, Pore size of filter media, Air permeability, Constant/variable load Elongation, Spirality in garments, Wool fineness, Fineness Grade of wool fibre, Fibre hollowness, Fabric streak analysis, Fabric sheet friction, Wide width tensile, strength, Blade cut resistance, Yarn/fabric type identification, Fabric defect analysis Resistance to penetration by synthetic blood/ Splash resistance for surgical mask; Differential pressure, mm H<sub>2</sub>O/cm<sup>2</sup> for surgical mask etc.

## **CHEMICAL QUALITY EVALUATION (CQE), HEAT & FLAME LABORATORY (H&F) AND MICROBIOLOGY LAB**

**No. of Commercial Samples Tested:** 3232

In addition to this, around 150 R&D samples were also tested.

### **Type of Samples received:**

**CQE:** Fibres, Yarns, Fabrics, Garments, Technical Textiles (Protech, Nonwoven, Automotive etc.), Dyes & Chemical Auxiliaries, PPEs/ Coveralls/ Shoe cover, Surgical Mask & Gowns etc.

**H&F:** Personal protective clothing, Upholsteries, Automotive fabrics, Floor coverings, Fabric for Railways etc.

**MICROBIOLOGY:** Fibres, Yarns, Fabrics, Garments, Technical Textiles (Protech, Nonwoven, Automotive etc.), Polymers, Helmets, Chemicals and Finishes etc.

### **Type of Tests Conducted:**

#### **CQE:**

- Colour Fastness properties
- Wax Content/ Oil Content/ Blend composition etc.
- Total Colour difference, Yellowness/ Whiteness Index & Dye powder strength evaluation by Computer Colour Matching System/ UV-Spectrophotometer
- Various properties for automotive fabric
- Fluorescent & reflective tape, Flammability fabric, Waterproof material
- Synthetic Blood Penetration-Fabric/ Coverall/ Shoe cover
- Flammability for surgical mask, etc.

#### **H&F Lab:**

Ease of ignition of vertically oriented specimen, Flame spread properties of vertically oriented specimen, 45° (inclined) Flammability, Vertical flammability test, Horizontal flammability test, Limited flame spread test, Convective heat test, Radiant heat test, Molten metal splash test, Contact heat test, Impact of spatter test, Electrical resistance, High visibility, Ignitability of vertically oriented specimen, Flame spread vertically, Smoldering cigarette test, Match flame test PTTD, Oxygen index, Methanamine table test, Hot metal nut test, Vertically oriented specimen etc.

#### **MICROBIOLOGY:**

Antimicrobial Evaluation:

Antimicrobial Finishes on Textile materials: Assessment Staphylococcus aureus ATCC No 6538, -Klebsiella pneumonia ATCC No 4352; Antimicrobial Activity Assessment of Textile Materials: Parallel Streak method; Antimicrobial Activity Assessment of new carpet - Qualitative assessment/ Quantitative assessment; Antibacterial activity assessment of textile materials: Agar plate method; Determination of antibacterial activity of textile product; Measurement of antibacterial activity on plastics and other non-porous surface; Determination of antibacterial activity of textile product- Agar diffusion plate test; To

evaluate the antibacterial efficacy of antibacterial finished textile product; To determine the resistance to dry bacterial penetration; Resistance to dry microbial penetration Bacterial Filtration Efficiency etc.

**Antifungal Evaluation:**

To determine the degradability of textile materials-Part-1; To evaluate the susceptibility of textile specimen against fungal Chaetomium globsum-Part-2; To evaluate the susceptibility of textile specimen against fungal like Aspergillus niger.-Part-3; Standard practice for determining resistance of synthetic polymeric materials to fungi; Detection of mildew /rot proofness etc.

## **POLYMER & TECHNICAL TEXTILES LABORATORY**

**No. of Commercial Samples Tested:** 714

**Type of Samples received:**

Coated / Laminated, Formed fabrics, Garments, Rubber, Plastic, Leather, Polymer products, Zipper, Slide fastener, Adhesives and Polishes, Buttons and Tapes, Canvas, Leather, Rubber, Plastic and Safety shoes, Composites, Medical Textiles, Geo-textiles, Automotive materials, Protective clothing, Wooden block, Rubber block, Full Body Protector, Anti Riot Helmet, PC Lathi, PC Shield, Rain Cape, Rain Poncho, Bed Mattress etc.

**Type of Tests Conducted:**

Adhesion strength, Ash content, Bending resistance, Bound organic substances, Chromium content, Compression set, Adhesion tests for shoes, Cut growth, Degree of tannage, Differential number, Dimensional change, Flammability test, Smoke visibility test, Fire resistance, Flexing endurance, Hydrogen sulphide resistance, Ignitability test, Melt flow index, Nitrogen content, Proofing content, Resistance to damage by flexing, Polymer content, Stretch test of elastic tape, Tensile strength & elongation, Tear strength, Thermal conductivity, UV protection factor, Performance test on zipper, Water vapour permeability of leather. Seam fatigue test, Toxicity index, FTIR, Melting point, Ash content, Crib test, Smoke visibility test, Toxicity index, Fire resistance test, Stab & Impact resistance test, Crumple resistance test etc.

## **ECO LABORATORY**

**Number of samples analyzed:** 108

**Type of samples received:**

Fabric, Yarn, Fibers, Thread, Garment, Carpet, Blanket, Bath Rugs, Rain Capes, Melt Sheet, Automobile Components, Research samples etc.

**Type of analyses conducted:**

- Carcinogenic Aromatic Amines released from Azo dyes
- Hazardous Substances- Cd, Pb, Hg & CrVI
- Free and released Formaldehyde

- Toxic Heavy Metals- Cd, Cu, Co, Cr, Hg., Ni, Pb, Zn etc.
- Other metals- Fe, Mn, Ca, Mg, Na, K, etc.
- Residual Chlorine
- Penta Chloro Phenol (PCP)
- pH of Aqueous Extract
- Phosphorus, Titanium Oxide & IPA, etc.

## **ENVIRONMENT LABORATORY**

**Number of samples analyzed:** 94

### **Type of samples received:**

Raw Water, Treated Water, De-mineralized Water, Drinking Water, RO Feed Water, RO Treated and Reject Water, UF Feed and Treated Water, Process House Water, Condensate Water, Industrial Effluents, ETP Inlet, Intermediate and Outlet water, STP Inlet and Outlet Water, Research and Consultancy Samples etc.

### **Type of analyses conducted:**

- Physicochemical analysis of water including Color, Odor, Turbidity, pH, Conductivity, Total solids, TDS, TSS, Alkalinity, Hardness, Ca, Mg, Na, Cl, SO<sub>4</sub>, NO<sub>3</sub>, PO<sub>4</sub>, HCO<sub>3</sub>, CO<sub>3</sub>, SiO<sub>2</sub>, Fe, B, F, Residual Cl<sub>2</sub>, Ammonical Nitrogen, etc.
- Drinking water parameters including bacteriological analysis (MPN Coliform/100 ml) and heavy metals like Cd, Co, Cu, Cr, Pb, Hg, Ni, Zn etc.
- Effluent parameters like pH, TDS, TSS, COD, BOD, O/G, SAR, NH<sub>3</sub>, S, Cr, Res. Cl<sub>2</sub> and heavy metals etc .
- pH, Solids, Moisture content and Heavy Metals (Cd, Cu, Co, Cr, Hg., Ni, Pb, Zn etc.) in ETP Sludge etc.

### **New Clients Added in Testing Services:**

M/s. Atul Textiles, M/s. HP Threads, M/s. JB Ecotex, M/s. Swadeshi Woolen Mills, M/s. Karwa Spinners Pvt. Ltd, M/s. DD Eco Sourcing, M/s. G.P.Enterprises, M/s. Duro Bag (P) Ltd., M/s. Harshdeep Embroidry, M/s. Hyper Stealth Technologies Pvt. Ltd (HSTPL), M/s. Hula Global Fashion Private Limited, M/s. Zet fly online services, M/s.Yara Khadi Gramodyog Sangh, M/s. Verde Polysfy Private Limited, M/s. Ultra Resorts and Hotel Private Limited, M/s. Traditions And Modernity, M/s. Varishabh Industries, M/s. Appis International, M/s. Outvie Traders, M/s. Somani Venture Pvt. Ltd., M/s. Shree Gautam Garment Pvt. Ltd, M/s. Kaushal Fabrics, M/s Arsh Knit Fab, M/s. Neo Safety Product Pvt. Ltd., M/s. Reliance Spinning Mills Ltd., M/s. VG Defence System Pvt. Ltd, M/s. Shree Balak Enterprises, M/s. VJM Industries, M/s. Sandeep Enterprises, M/s. Infected Monk & Company, M/s. Gold Spin India Pvt. Ltd., M/s. Shingora Textile Ltd., M/s. Tirupati Fibre, M/s. Neeta Polycots, M/s. Vijay Vallabh Knit Feb, M/s. Shyamlal Goyal Textile Pvt.Ltd., M/s. AOV Clever Knits LLP, M/s. U.P. Apex Export Co-operative Marketing Association Ltd., M/s. Archana S. Devsani, M/s. Balaji Unnati Textiles, M/s. G.C.Threads Pvt.Ltd., M/s. Pelle & Carta Technologi LLP, M/s. SKI Technologies Pvt. Ltd., M/s.

- Weston Safety Equipments Mfg. Co., M/s. WoolKon India, M/s. Bakshi Traders, M/s. Shreemum Clothing, M/s. Sarawati Corporation, M/s. Govinda Knitwears

**Participation of Labs in Inter-lab and Proficiency Test Program:**

- NITRA, Ghaziabad
- BTRA, Mumbai
- SASMIRA, Mumbai
- TRADC, Bharuch
- SITRA Coimbtore
- MANTRA, Surat
- SPECTRO, Greater Noida
- ATHARWA, Noida
- AROMA, New Delhi WRA, Mumbai (Thane)
- RELIANCE, Gujarat
- ATIRA, Ahmedabad
- NSIC Technical Services Centre, New Delhi
- SITRA Powerloom Service Centre, Tiruchengode
- CIPET, Bhubneshwar
- SLEEN India, Agra
- WRA, Thane

## TRAINING SERVICES

Keeping in view the ever increasing demand for trained manpower in textile and garment industry, NITRA offered several job-oriented training programs in regular and distance learning mode (for working professionals) to help the textile and apparel industry source trained manpower. Regular programs are meant for young graduates and 12<sup>th</sup> Pass students aspiring to make their career in the garment industry. These programs cater to meet the needs of different departments such as Production, Quality Control, Merchandising and Industrial Engg.

### Job-Oriented short term programs:

Since 2002, NITRA has been conducting job-oriented professional training programs for the textile and apparel sector. During the year 2022-23, following full time programs were offered. A total of 59 students were admitted in these programs. Details are given below.

Sl. No.	Program Title	Min. Qualification	Duration	No. of students trained
1	Fashion Marketing and Merchandising (FMM)	Graduation/ Diploma	12 months	27
2	Apparel Design & Quality Control (ADQC)	12 <sup>th</sup> Pass	12 months	16
3	Apparel Production and Industrial Engg (APIE)	12 <sup>th</sup> Pass	12 months	16

### Distance Learning Programs for Working Professionals:

Since 2003, NITRA is conducting distance learning programs for the working executives of textile and apparel sector. During the year 2022-23, following distance learning programs were offered. A total of 73 candidates were admitted in these programs. Details are given below.

S.No	Name of the Program	Duration	No. of persons trained
1	Textile Technology & Management (TTM-DLP)	12 months	32
2	Apparel Manufacturing and Merchandising (AMM-DLP)	12 months	19
3	Quality Evaluation of Textiles and Garment (QETG-DLP)	12 months	22

Contact sessions are conducted twice in a month on alternate Sundays in NITRA campus.

### Summer Training Programs:

Every year, NITRA conducts one month summer training programs for the students of textile universities, colleges and polytechnics pursuing Post Graduation/ Graduation/

Diploma level courses. During the year 2022 -23, summer training programs offered and no. of students attended are given below:

S. No	Title	No. of participants
1	Textile Manufacturing and Testing (TMT)	09
2	Textile and Apparel Manufacturing	32

### Placements of Short term Students, Batch 2021-22

A total of 10 garment/home textiles export houses and buying houses recruited NITRA students. List of units where the students got placed is given below.

S.No	Name of the Company
1	RMX Joss, Greater Noida
2	C & R Textiles, Noida
3	Brij Designs, Gurgaon
4	Radiant Expovision, Noida
5	Orient Fashions, Noida
6	Maral Overseas, Noida
7	International Sourcing Co, Noida
8	Kohinoor Enterprises, Noida
9	Emar Design, Delhi
10	Titanic Designs, Noida

Starting salary offered varies between Rs. 1.44 lac and Rs. 2.00 lac per annum.

### NITRA Technical Campus: The Academic Wing to Support Training Activities

NITRA Technical Campus was established during 2011-12 for conducting AICTE, MoE approved and AKTU, Lucknow affiliated B. Tech. programs. It provides students a unique opportunity to undergo comprehensive training on world class facilities, all available under one roof, to make them industry ready.

Placement of seventh batch of B. Tech. students of NITRA Technical Campus has been very impressive. Till 31<sup>st</sup> March, 2023, 58 students of Textile Technology, Textile Chemistry and Computer Science & Engg. Branches have been placed in renowned companies like M/s. Shahi Exports; M/s. Weave Tex Overseas; M/s. Avanti Overseas; M/s. Vardhman Textiles Ltd.; M/s. RSWM; M/s. Cedar Textiles Ltd.; M/s. Super House; M/s. Arham Spinning Mills, Bhiwadi; M/s. Wipro; M/s. Infosys; M/s. The Unified Cloud Pvt. Ltd.; M/s. Innobit Systems Pvt. Ltd.; M/s. ANR Software Private Ltd.; M/s. Abhiwan Technology Pvt. Ltd.; M/s. Hanu Software Solutions; M/s. Chetu India Pvt. Ltd.; M/s. OEPP Innovations Pvt. Ltd.; M/s. MB Softech Consultant; M/s. Matrix Infotech Solution; M/s. Symbiosys Technologies; M/s. Dirac ERP Solutions.

Please refer Annex-7 for training program details.

Please refer Annex-13 for placement details of NITRA Technical Campus (NTC) students.

## LIBRARY AND INFORMATION SERVICES

NITRA library is enriched with printed and digital resources. It has dedicated computers to provide on-line access to library resources.

### Resources

The library has developed an adequate collection of Books, Journals, Reports, Thesis and Bound Volume Journals with specialized focus on textiles and allied subjects. The collection is as under:

Books	9998
Journals (For list of journals refer Annex-11&12)	18
Project reports	253
Thesis (M.Sc./Ph.D., B.Tech - CSE/TT/TC)	194
Journals (Bound Volumes)	4954

### Library Services

#### ***Online Public Access Catalogue (OPAC):***

- Library collection is computerized and the online catalogue provides bibliographic information about 10,000 holdings of books, journal volume (bound), thesis, project reports etc. of the library
- Online Public Access Catalogue informs users about new books and journals added to the library collection
- Members can check details of the borrowed books
- Wi-Fi networking provides its users, access to internet

#### ***Photocopying Services:***

Photocopy of the library documents are made available mainly for academic purpose.

#### **NITRA has taken up Institutional Membership of:**

- Bureau of Indian Standards, New Delhi
- The Textile Institute, Manchester

#### **Centre for Academic Partnership (CAP)**

The library continues to promote its academic interaction with academic institutions by making its resources and services available under "Centre for Academic Partnership" scheme. Ten Institutions have become the members of library so far.

## New Arrivals of Books at Library

1. Software Engineering by K K Agarwal, Yogesh Singh.
2. GATE 2022 Computer Science and Information Technology, Ed. By Vinit Garg.
3. Fundamentals of Mechanical Engineering and Mechatronics by Dr. D S Kumar.
4. A Text Book of Engineering Mathematics (Sem. II), 12<sup>th</sup> ed. by N P Bali, Manish Goyal.
5. A Text Book of Engineering Mathematics (Sem. IV), 9<sup>th</sup> ed. by N P Bali, Manish Goyal.
6. Norms for Mechanical Processing (Weaving), by BTRA
7. Manufactured Fibre Technology by V B Gupta, V K Kothari.
8. Modern Textile Processing by Dr. N. N. Mahapatra.
9. Computer System Architecture by M Morris Mono.
10. A Text Book of Fabric Science : Fundamentals and finishing by Seema Sekhri.
11. Data Analysis : Using statistics and probability with R language by Partha Sarthi Bishnu, Vandana Bhattacharya.
12. Machine Learning : A practitioner's approach by Vinod Chandra S S, Anand Hareendran S.
13. Applied Machine Learning 2<sup>nd</sup> ed. by M Gopal.
14. Introduction to Machine Learning 4<sup>th</sup> ed. by Ethem Alpaydin.
15. Machine Learning : An algorithmic perspective 2<sup>nd</sup> ed. by Stephen Marsland.
16. Pattern Recognition and Machine Learning by Christopher M Bishop.
17. A Text Book of Discrete Mathematics by Dr. Swapan Kumar Sarkar.
18. Introduction to Constitution of India by Brij Kishor Sharma.
19. GATE : Textile Engineering (Previous Solved Papers, Published by Engineers Academy.
20. Constitution of India by Richa Choudhary, (et. al.)
21. Introduction to Engineering Mathematics, Vol. I, 11<sup>th</sup> Ed. By H K Dass (et. al.).
22. Environment and Ecology by Smriti Srivastava.
23. Soft Skills (The Employable Skill for 21<sup>st</sup> Century): Including English Language Lab.
24. Technical Communication : Principles and practices by Meenakshi Raman, Sangeeta Sharma.
25. Sustainable Fibres for Fashion and Textile Manufacturing, Edited by Rajkishore Nayak.

## **IMPORTANT EVENTS AND HAPPENINGS DURING 2022-23**

### **DG NITRA addresses at 3<sup>rd</sup> Global Textile Conclave (GTC) organized by CITI**

Dr. Arindam Basu, Director General NITRA addressed at the 3<sup>rd</sup> Global Textile Conclave (GTC) organized by CITI held at Hotel Marriot, Jaipur during March 15-17, 2023. His views on TRAs commendable work in research & developments in diversified fields and approach of having a VISION OF 5 YEARS AHEAD were very much appreciated.

### **DG NITRA deliberates in National Workshop on Bamboo Sector Development and Bamboo Exhibition**

Dr. Arindam Basu deliberated on “Opportunities in Bamboo sector: exports, MSME and branding” in the National Workshop “Bamboo Sector Development and Bamboo Exhibition” organized by The National Bamboo Mission, Dep. of Agriculture and Farmers welfare on March 10, 2023 at PHD House, New Delhi. It was aimed to promote bamboo sector by adapting area based differentiated strategy hence promoting Bamboo cultivation and marketing of bamboo products.

### **Dr. M.S. Parmar, Director awarded FTA Award**

Dr. M.S. Parmar, Director has been awarded the “Hon. Fellow of The Textile Association Award (Hon. FTA)” for the year 2022-23 by the Textile Association (India). The award is awarded to the Eminent Scientist & Researcher for significant contribution to The Textile Industry. The award is given by the Honorable Chief Minister of Gujarat Mr. Bhupendra Rajnikant Patel, in the presence the Honorable Minister of State for Textiles and Railways Mrs. Darshana Vikram Jardosh on February 25, 2023.

### **NITRA at Technotex 2023, Mumbai**

NITRA, CoE of Protective and Automotive textiles, showcased its developments, publications, commercialization and several activities in the field of technical textiles at TECHNOTEX 2023, Goregaon, Mumbai. Technotex-23, organized by MoT and FICCI from February 22 to 24, 2023 is a flagship event on Technical Textiles comprises of an International exhibition, conference, and seminars. A common platform for participants, visitors and other key decision makers from a diverse cross section of the technical textile industry with a view to provide more innovative solutions, identify new business opportunities and create an environment congenial for growth. Dr. Arindam Basu, DG & Dr. M.S. Parmar, Director moderated two sessions in the seminar related to Technotex 2023.

### **NITRA Scientists Awarded Ph.D at the 41<sup>st</sup> Convocation of DEI, Agra**

It is a matter of great pride for NITRA that Dr. Neha Kapil and Dr. Shweta Saxena, both Principal Scientific Officer in NITRA, was awarded Doctorate degree at the 41<sup>st</sup> Annual Convocation of Dayalbagh Educational Institute (Deemed University) Dayalbagh, Agra on 18<sup>th</sup> Feb 2023. The degree was awarded by the chief guest Shri Sanjay Jaju, IAS, Former Additional Secretary Department of Defence Production, Ministry of Defence, Gol.

## **Global Investors Summit in Lucknow**

Dr Arindam Basu, Director General, while representing NITRA in the Global Investors Summit in Lucknow on Feb 11, 2023 opined that Uttar Pradesh is a land of infinite textile opportunities. He stressed on increased investments in the 'Technical Textile' sector in UP as this sector is growing much faster as compared to any other components of textiles & there is huge potential in this field.

## **NITRA Partners NISTI in Seminar on Khadi and Handlooms for Sustainable Fashion**

A seminar on "Khadi and Handlooms for Sustainable Fashion" was organized by NISTI on 4<sup>th</sup> Feb. 23 at IIT Delhi. NITRA was a Knowledge Partner in this program. DG NITRA addressed a large number of delegates. He mentioned about the quality control and usages of environment friendly wet processing that need to be strengthened for making them sustainable both environmentally and economically.

## **Research Advisory Committee (RAC) Meeting held at NITRA**

Research Advisory Committee (RAC) Meeting was held at NITRA on January 14, 2023. It was chaired by Shri Sandeep Hora, Chairman RAC, Vice Chairman NITRA Council of Administration & MD Aeronav Safety Appliances, New Delhi. Ms. Roop Rashi, IA&AS, Textile Commissioner, Ministry of Textiles, Govt. of India also attended the program. Dr. Arindam Basu, DG NITRA welcomed the Chairman RAC, Textile Commissioner and experts. Total 12 R&D projects were presented by NITRA scientists. As many as 16 RAC members & special invitees from Academia & industry had very intensive interactions and poured in good amount of suggestions and ideas. Chairman RAC and Textile Commissioner also gave fruitful inputs for the projects.

## **Dr. Arindam Basu DG NITRA at India ITME 2022**

Dr. Arindam Basu, DG NITRA shared his views on Sustainability as one of the panelists in Technical Symposium organized by VJTI & ITME on "Reduce-Reuse-Recycle : State of the Art in Textile Sector" on December 10, 2022 in INDIA ITME 2022 at Greater Noida.

## **NITRA ranked amongst the Top 3 Innovative Research Institutes in India by CII**

In another very significant happening, during this year NITRA awarded the CII Industrial Innovation Awards 2022 on December 3, 2022. NITRA is ranked amongst the Top 3 Innovative Research Institutes amongst all research institutes in India by India's prime industry body Confederation of Indian Industry (CII) the leading association of industry. NITRA is overwhelmed as for first time the industry body has recognized the R&D outcomes of NITRA scientists. NITRA management duly acknowledges the contribution of its esteemed patrons and all other associated with NITRA for this outstanding achievement.

## **NITRA Organises National Conclave on Technical Textiles – Protech**

With the assistance of National Technical Textile Mission (NTTM), MoT, GoI, NITRA and ITTA jointly organized a National Conclave on Technical Textiles - Protech on 16th Nov, 2022 at India Habitat Centre, New Delhi. The conclave was inaugurated by the Chief Guest Ms. Rachna Shah, IAS Secretary Textiles, GoI. She also inaugurated the exhibition

where more than 20 companies involved in Technical Textiles manufacturing participated. In her inaugural address, she stated that though size of Technical Textile Sector is small in India but the growth rate of around 10% reveals that it is going to contribute Indian economy in a big way in coming years. Sh. Rajeev Saxena, IRSS, Jt. Secretary, MoT, Gol presented the vision behind the launch of NTTM and its objectives. Ms. Roop Rashi, IA &AS, Textile Commissioner, MoT, Gol emphasized that Government through its schemes like PLI & NTTM is visualizing major boost in the Technical Textile Industry. Dr. Arindam Basu, Director General, NITRA in his welcome address stated that NITRA is actively involved in development of various protective textile products. Sh. Raj Kumar Jain, Chairman, NITRA, Sh. Amit Agrawal, Chairman, ITTA and Dr. Anup Rakshit, Executive Director ITTA also addressed. About 450 professionals related to technical textiles especially Protech participated.

#### **Dr. Mahadev Datta, Deputy Director, National Jute Board, Kolkata visits NITRA**

Dr. Mahadev Datta, Deputy Director, National Jute Board, Kolkata visited NITRA on 20<sup>th</sup> September 2022 to explore the NITRA facilities and progress of R&D projects sponsored by National Jute Board, Ministry of Textiles, Govt. of India.

#### **Dr. Arindam Basu, DG NITRA, shares his views on “Observations of the Stakeholders on Challenges & Opportunities” in a webinar**

Dr. Arindam Basu, DG NITRA, gave deliberations on “Observations of the Stakeholders on Challenges & Opportunities” in an “Awareness Webinar on Quality Control Orders (QCOs) & Standards for Textile Value Chain and Technical Textiles” on September 12, 2022. The program was organized by Confederation of Indian Textile industry (CITI) in association with Bureau of Indian Standards (BIS).

#### **DG NITRA Presents Invited Paper in 34<sup>th</sup> National Convention of Textile Engineers and National Seminar on "Innovative Textile Materials" also recognized with “Eminent Engineer” honour for life time achievement in R&D**

Dr. Arindam Basu presented a invited paper on “Smart Textiles: Use in health monitoring and sportswear” in 34<sup>th</sup> National Convention of Textile Engineers and National Seminar on "Innovative Textile Materials" on September 11, 2022 held at IIT Kanpur. He was felicitated with “Eminent Engineer”. It's a great honour to him and NITRA. The seminar was organized by the Institution of Engineers (India) Kanpur local centre in association with The Textile Association (India) U.P. Unit.

#### **Industrialist Raj Kumar Jain takes over as NITRA's New Chairman in 46<sup>th</sup> AGM**

The members of Council of Administration NITRA had met in the 46<sup>th</sup> AGM held on 10<sup>th</sup> Sept.'22 at NITRA, Ghaziabad. and elected its new leadership team for the year 2022-23. Sh. Raj Kumar Jain, MD, Zonac Knitting Machines (P) Ltd. is elected as the new Chairman of NITRA, the pioneering textile R&D organization in the country. Sh. Vidit Jain, Joint. MD, Pasupati Spinning & Weaving Mills Ltd. is elevated as Dy. Chairman. Sh. Sandeep Hora, Partner & CEO, Aeronav Industrial Safety Appliances has been inducted as new Vice Chairman. The newly appointed chairman also assured to deliver quality service from NITRA to the Indian T&C industry and its allied sectors.

### **Ms. Roop Rashi, IA & AS, Textile Commissioner Graces NITRA's 17<sup>th</sup> Convocation**

Ms. Roop Rashi, IA & AS, Textile Commissioner, MoT, Gol was the chief-guest in NITRA's 17<sup>th</sup> Convocation cum Award Ceremony held on Saturday, Sept 10, 2022 at NITRA, Ghaziabad. Director General NITRA, in his welcome address, mentioned that recognizing the need for trained manpower for the textile and apparel industry, NITRA started offering short term training programs in year 2002 and till now, has trained and placed over 3,200 students of regular and distance learning programs.

Textile Commissioner along with Sh. Dinesh Nolkha, outgoing Chairman, Sh. Raj Kumar Jain, incoming Chairman, and Sh. Vidit Jain, Dy. Chairman, Dr. Arindam Basu, Director General NITRA awarded certificates and medals to more than 100 students in the convocation. Textile Commissioner said that Quality Assurance has to be focused by these young passed out textile students to make India one of the favourite sourcing destinations for the world buyers. She also emphasized on innovating for strengthening Technical Textile sector. Improved quality assurance and innovations may make India the most sought after countries in field of textiles, apparel and technical textiles exports, she asserted.

Textile Commissioner also visited NITRA Labs including facilities for testing protective / automotive textiles, Spinning, Weaving and Natural Long Fibre Pilot Plants. She also looked the Pilot production facilities for regenerated Bamboo Fibres. She appreciated the NITRA facilities and R&D work done in the field of protective textiles and natural long fibres.

### **Director General Graces Celebration of “Royal Charter Day 2022” as Chief Guest**

Dr. Arindam Basu, DG NITRA, was the Chief Guest in the program “Celebration of Royal Charter Day 2022” organized by The Institution of Engineers (India) Ghaziabad Local Centre on September 9, 2022 held at NITRA, Ghaziabad. He, in his deliberations, emphasized that The Institution of Engineers can come forward in helping the newly passed out engineers in getting appropriate placements.

### **Jt. Secretary, Ministry of Textiles, Govt. of India Visits NITRA**

Shri Rajeev Saxena, Joint Secretary, MoT, Gol visited NITRA on July 30, 2022. He visited the various state of the art facilities at NITRA like laboratories, FIC (Focus Incubation Centre), Pilot plant for Spinning & Weaving and Flax & Long Fibre Processing Unit. He had detailed discussion with Dr Arindam Basu DG, NITRA and other senior scientists on various research activities that are being carried out at NITRA. The Jt. Secretary also showed keen interest on the focus areas for future activities regarding technical textiles.

### **Director General NITRA addresses at “Uttar Pradesh MSME Sammelan 2022 – Transforming MSME's Competitiveness” at Lucknow**

Dr. Arindam Basu, DG NITRA addressed the Technical Session “Textile & Technical - Textiles Sector” as the Key Note Speaker in “Uttar Pradesh MSME Sammelan 2022-Transforming MSME's Competitiveness” organized by Assocham on June 27, 2022 at Lucknow. The Sammelan was held on June 27-28, 2022. Mr. Vineet Tyagi, Sr. Manager-Business Development also accompanied him in this Sammelan. Both had several meetings and discussions with industry stalwarts and dignitaries. Sammelan was

inaugurated by Deputy Chief Minister Shri Brajesh Pathak and valedictory address was given by Honourable Governor of UP Smt. Anandi Ben Patel.

### **Dr. Arindam Basu, DG NITRA Delivers a lecture in Technical Session at Indian Oil Corporation Ltd**

On 22<sup>nd</sup> June, 2022, the Director General presented a lecture namely “Polyester fibre-Introduction” at Technical Session at IOCL Office, New Dehli for senior officers including Director & Senior General Managers.

### **Dr. Arindam Basu, DG NITRA Chairs a meeting at BIS New Delhi**

Dr. Arindam Basu, DG NITRA Chaired the session “Building Standards for India@2047-Protective Textiles” in the 5<sup>th</sup> National Conclave on Standards for Technical Textiles.

It was organized by Bureau of Indian Standard, Ministry of Textiles and Federation of Indian Chambers of Commerce and Industry (FICCI) on June 10, 2022. The Conclave encompassed a wide array of sessions and discussions on standards and regulations covering different areas of Technical Textiles including ProTech and Specialty Fibres, Agro Tech and Medi Tech, Geo Tech and Buid Tech, Mobil Tech, Composites and Indu Tech. The 300 representatives including Officials and Representatives from Bureau of Indian Standards (BIS), Indian Army, Indian Navy, Indian Space Research Organization (ISRO), Line Ministries and Departments of the Central Government, State Governments, and Eminent Industrialists from India attended the conclave through hybrid mode; physical and virtual.

### **NITRA organizes training program for senior officials from Indian Oil Corporation Ltd.**

NITRA organized 2-day training program on 'Polyester Fibre & Yarn Manufacturing' on June 2 and 3, 2022. The program was attended by 12 officials of Indian Oil Corporation Limited (IOCL). Dr. Arindam Basu, DG, NITRA welcomed Sh. A. S. Sahney, ED, IOCL and Sh. A. V. Raghunadhan, CGM, IOCL and other IOCL officials. While addressing on the occasion, Sh. Sahney opined that the current program is just the beginning of the relationship between NITRA and IOCL as both the organizations are committed to work closely in the future days. Later on the day, the team of dignitaries was taken to a round to show the infrastructure set-up at NITRA. The team also expressed deep satisfaction over the various infrastructure facilities that are available with NITRA.

### **NITRA Scientist Presents Research Paper in Fibre Society's Spring 2022 Conference in Belgium**

Ms. Rupali, Senior Scientific Officer, NITRA presented a paper at Fibre Society's Spring 2022 conference, “Fibers for a Greener Society: From Fundamental to Advanced Applications” held at KU Leuven, Belgium during 30<sup>th</sup> May to 1<sup>st</sup> June 2022. The title of the paper was “Influence of External Pressure on Liquid Absorption and Retention of Cotton Nonwovens.” The paper was a part of her research work while she was pursuing Ph.D from IIT Delhi.

### **DG chairs Textile Division Council Meeting of BIS**

Dr. Arindam Basu, Director General, chaired BIS Textile Division Council meeting on April 24, 2022. It was attended by chair persons of all divisions of TXDs and other members.

### **NITRA Technical Campus Places 100% Students of Textile Technology Branch**

It is a matter of great rejoice that in continuation with the legacy of 100% placement even before the course completes, this year too NITRA Technical Campus (NTC) have managed to place all its Textile Technology Branch students of the batch 2018-22 before the completion of 4th year. It is delightful that top notch textile and garment companies such as Vardhman Textiles, Nahar Industrial Enterprises, Shahi Exports, and many more are part of the institute's recruiters' bouquet.

### **NITRA Technical Campus Organizes Annual Sports Meet 2023**

NITRA Technical Campus (NTC) organized 3-day intra-college annual *Sports Meet 2023* during 7-9 February, 2023 at NTC Campus, Ghaziabad. Six disciplines of sports activities such as, cricket, football, table tennis, volleyball, badminton, and chess were included in this year's sports meet. About 350 students from various branches have participated with great enthusiasm in this meet. Dr. Arindam Basu, Director General, NITRA & Director, NTC, Dr. M. S. Parmar, Director, NITRA along with other faculty members distributed the prizes in the closing ceremony.

### **Parichaya 2023 - the annual Fresher's Party of NITRA Technical Campus**

Parichaya 2023, the annual Fresher's Party of NITRA Technical Campus (NTC) was held on 20<sup>th</sup> January, 2023 at NITRA, Ghaziabad. The fresher's meet opened with the 1<sup>st</sup> year students presenting performing arts such as solo & group song, solo & group dance, skits, poetry recitation, dramatics, poster presentations and a series of fun games. The program also included a colorful 'Ramp Walk' by the aspirants of Mr. and Ms. Fresher title amongst the students of 1<sup>st</sup> year. Dr. Arindam Basu, Director General, NITRA and Director, NTC, graced the occasion and distributed prizes along with other faculty members during the occasion.

### **NTC organizes 8<sup>th</sup> Techno-Science Quiz 2022**

NITRA Technical Campus (NTC), the only Govt. Aided Self Finance engineering college in NCR, organized the 8<sup>th</sup> Techno-Science Quiz on 19<sup>th</sup> November, 2022 for 12<sup>th</sup> Standard science-stream students. This is an annual event of NTC to encourage young scientific minds. This year 130 students from 18 reputed schools in and around Ghaziabad took part in the event. Arpit Kumar Shrivastava from Green Field Public School emerged the winner of the contest. Sanvi Gupta from Everest Public School and Deepti Kumari from Bhagirath Public School secured the 2<sup>nd</sup> and 3<sup>rd</sup> positions respectively. Dr. Arindam Basu, Director General, NITRA along with other faculty members rewarded the winners with cash prize and certificate. In addition to toppers, certificate was also awarded to all participants.

## POWERLOOM SERVICE CENTRES

Ministry of Textiles, Government of India, has established 45 Power Loom Service Centres across the country. High priority is given to these projects as these centres help in local entrepreneurship development, employment generation and economic development of states and country.

Out of these 45 centres, administrative control of 8 Power Loom Service Centres (PLSCs) is assigned to Northern India Textile Research Association, Ghaziabad. These Centres are functioning at the following locations:

1. In Uttar Pradesh
  - (i) Meerut
  - (ii) Kanpur
  - (iii) Tanda
  - (iv) Gorakhpur
  - (v) Varanasi
2. In Haryana - Panipat
3. In Punjab - Ludhiana
4. In Rajasthan - Bhilwara

These centres are serving decentralised power loom sector to achieve the objectives as given below:

### OBJECTIVES OF POWER LOOM SERVICE CENTRES

- (1) To impart practical training to weavers for improving their efficiency, skill and productivity. Side by side, quality up-gradation and product-mix diversification are also emphasized, keeping in view of the present need of national and international markets
- (2) New design development and diversification of power loom products for improving the economy and scale of operation of power loom weavers
- (3) To provide testing facilities to decentralized power loom sector and make them aware of need and importance of testing required for meeting forthcoming changes in reference to the globalisation trends
- (4) To provide technical consultation facilities related to operational difficulties faced by powerloom weavers
- (5) To co-ordinate developmental activities of powerloom industry with state Governments
- (6) To motivate decentralized power loom industry towards upgrading / modernizing their units and take advantage of government schemes, viz. TUFSS, Group Workshed Scheme and Weaver's insurance etc. and organize seminars/workshops
- (7) To collect and compile statistical information of power loom industry

## ACTIVITIES

In order to achieve above mentioned objectives, Power Loom Service Centres carried out following activities during the year 2022-2023:

1. Liaison visits/survey carried out (No. of units covered)	-	2200
2. Technical assistance/consultations provided	-	59
3. Design developed	-	24
4. Samples tested	-	3506
5. No. of persons trained	-	995

## TEXTILE TESTING LABORATORIES

All eight Power Loom Service Centres are having testing facilities capable to meet basic requirements of the decentralised power loom sector in normal course. In addition to it, special testing facilities are also available at following four centres. These centres are:

1. Meerut (Uttar Pradesh)
2. Panipat (Haryana)
3. Bhilwara (Rajasthan)
4. Varanasi (Uttar Pradesh)

At these locations, samples related to fibre, yarn, fabric and chemical based requirements were tested. Details of these testing assignments carried out during the year are mentioned below :

Activity	Varanasi	Meerut	Panipat	Bhilwara	Kanpur	TOTAL
No. of samples tested	60	173	1108	1876	289	3506

## COMPUTER AIDED DESIGN (CAD) CENTRES

As additional feather in the cap, there are five CAD centers, which are located at Panipat, Bhilwara, Ludhiana, Tanda and at head office, Ghaziabad. The activities of CAD centers functioning under administrative control of NITRA are as mentioned below:

Activity	Tanda	Bhilwara	Total
No. of Designs developed	21	3	24

At Power Loom Service Centre, Tanda, Computer Aided Dobby and Jacquard design systems are available where as at CAD Centre, Ghaziabad doobby, jacquard, printing and embroidery design systems are available.

These CAD Centres develop new designs and provide training to the person working in decentralised Power Loom Sector.



**Ms. Rachna Shah, IAS, Secretary, MoT, inaugurates the National Conclave on Technical Textiles - Protech, jointly organized by NITRA and ITTA, at IHC, New Delhi. Also seen (L-R) is Dr. Arindam Basu, Director General, NITRA, Sh. Rajeev Saxena, Joint Secretary, MoT, and Sh. Sandeep Hora, Vice Chairman, NITRA**



**At the National Conclave on Technical Textiles – Protech: (L-R) Dr. Arindam Basu, Director General, NITRA, Sh. Raj Kumar Jain, Chairman, NITRA, Sh. Rajeev Saxena, Joint Secretary, MoT, Ms. Rachna Shah, IAS, Secretary, MoT, Ms. Roop Rashi, Textile Commissioner, MoT, Dr. Anup Rakshit, Executive Director ITTA, and Sh. Amit Agarwal, Chairman, ITTA**



**Ms. Roop Rashi, IA & AS, Textile Commissioner, MoT awards certificate at the 17th Convocation at NITRA.  
Also seen are (L-R) Sh. Vidit Jain, Dy. Chairman, Sh. Raj Kumar Jain, Chairman,  
Sh. Dinesh Nolkha, Immediate Past Chairman and Dr. Arindam Basu, Director General, NITRA**



**Ms. Roop Rashi, IA & AS, Textile Commissioner, MoT takes a round at NITRA Heat & Flame Laboratory  
along with Dr. Arindam Basu, Director General, Dr. M.S.Parmar, Director, and other NITRA scientists**



**Dr. Arindam Basu, Director General, NITRA speaks at the National Workshop on Bamboo Sector Development & Bamboo Exhibition in PHD House, New Delhi**



Nikon D7200, 25mm, f/4.5, 1/125s

**Dr. Arindam Basu, Director General, represents NITRA as key speaker at the MSME Sammelan, Lucknow, Uttar Pradesh**



Dr. Arindam Basu, Director General, NITRA chairs the session Building Standards for India@2047 – Protective Textiles in 5th National Conclave on Standards for Technical Textiles at FICCI, New Delhi



Dr. Arindam Basu, Director General, NITRA with other dignitaries at the Global Textile Conclave for Strategies for Balancing Sustainability and Profitability in Textile Value Chain in Jaipur, Rajasthan

# ANNEXES



**MEMBERS OF THE COUNCIL OF ADMINISTRATION 2022-2023**

1. Shri Raj Kumar Jain  
(Chairman)  
Managing Director  
Zonac Knitting Machines Pvt. Ltd.  
D-1, D-2, Site B, Surajpur Industrial Area  
Greater Noida – 201 306  
Distt. Gautam Budh Nagar
2. Shri Vidit Jain  
(Deputy Chairman)  
Jt. Managing Director  
Pasupati Spg. & Wvg. Mills Ltd.  
127, 128 Tribhuvan Complex  
Nehru Place, Mathura Road  
Ishwar Nagar  
New Delhi – 110 065
3. Shri Sandeep Hora  
(Vice Chairman)  
Partner/CEO  
Aeronav Industrial Safety Appliances  
C-36, 3<sup>rd</sup> Floor, Panchsheel Enclave  
New Delhi – 110 016
4. Shri Dinesh Nolkha  
Managing Director  
Nitin Spinners Ltd.  
12, Badal Textile Market, Pur Road  
Bhilwara – 311 001 (Raj.)
5. Shri S.K. Kapoor  
Managing Director  
Surya Processors Pvt. Ltd.  
619, Bisrakh Road, Village Chhapraulla,  
Distt. Ghaziabad – 201 001
6. Shri Sanjay Kumar Jain  
Managing Director  
T.T. Ltd.  
879, Master Prithvi Nath Marg  
Opp. Ajmal Khan Park, Karol Bagh  
New Delhi – 110 005
7. Shri Ramesh Kumar Jain  
Chairman-cum-MD  
Pasupati Spg & Wvg Mills Ltd.  
127, 128 Tribhuvan Complex  
Nehru Place, Mathura Road  
Ishwar Nagar  
New Delhi – 110 065
8. Shri R.L. Nolkha  
Chairman  
Nitin Spinners Ltd.  
16-17 KM Stone, Chittor Road  
Hamirgarh – 311 025  
Bhilwara (Rajasthan)

9. Shri Varun Ladha  
Managing Director  
Suvida Spinners Pvt. Ltd.  
91 K.M. Stone, N.H. No.79  
Village – Dhunwalia, P.O. Sareri-311024  
Distt. Bhilwara
10. Shri B.M. Sharma  
Jt. Managing Director  
RSWM Ltd.  
Bhilwara Towers  
A-12, Sector-1, Noida – 201 301
11. Dr. S.N. Modani  
Managing Director & CEO  
Sangam (India) Ltd.  
Atun, Chittorgarh Road  
Bhilwara – 311 001 (Raj.)
12. Shri Sanjay Garg  
President – NITMA  
Managing Director  
Longowalia Yarns Ltd.  
43, Mall Enclave, Civil Lines  
Ludhiana – 141 012 (Punjab)
13. Shri Mukesh Kumar Tyagi  
Vice President – NITMA  
Director  
BST Textile Mills Pvt. Ltd.  
309, 3<sup>rd</sup> Floor, Woodrow Building  
Veera Desai Road  
Mumbai – 400 023 (Maharashtra)
14. Shri Rajiv Garg  
Managing Director  
Garg Acrylics Ltd.  
Kanganwal Road, P.O. Jugiana  
Ludhiana – 141 120 (Punjab)
15. Representative  
NTC Ltd.  
Core IV, Scope Complex  
7, Lodhi Road,  
New Delhi – 110 003
16. Representative  
NTC Ltd.  
Core IV, Scope Complex  
7, Lodhi Road,  
New Delhi – 110 003
17. Representative  
Council of Scientific and Industrial Research  
Anusandhan Bhawan  
2, Rafi Marg  
New Delhi – 110 002
18. Shri Pratik R. Bachkaniwala  
Chairman, TMMA (I) &  
Managing Director  
Palod Himson Machines Pvt. Ltd.  
B-102, International Trade Centre  
Majuragate, Surat – 395 001

19. Dr. Arindam Basu  
Director General  
NITRA  
Sector 23, Raj Nagar  
Ghaziabad – 201 002
20. Shri Pragnesh Shah  
Director  
Ahmedabad Textile Industry's Research  
Association  
P.O. Ambawati Vistar  
Ahmedabad – 380 015 (Gujarat)
21. Dr. Prakash Vasudevan  
Director  
The South India Textile Research  
Association  
13/37, Avanashi Road  
Coimbatore – 641 014
22. Dr. T.V. Sreekumar  
Director  
The Bombay Textile Research Association  
Lal Bahadur Shastri Marg  
Ghatkopar (West)  
Mumbai – 400 086
23. Chairman/Addl. Secretary General  
Apparel Export Promotion Council  
Apparel House, Institutional Area  
Sector 44  
Gurgaon - 122 003 (Haryana)
24. Prof. R. Alagirusamy  
Professor & Head  
Deptt. of Textile Technology  
Indian Institute of Technology  
Hauz Khas  
New Delhi - 110 016
25. Ms. Chandrima Chatterjee  
Secretary General  
CITI, 6<sup>th</sup> Floor, Narain Manzil  
23, Barakhamba Road  
New Delhi – 110 001
26. Shri Suresh Singhvi  
Director (Finance)  
Ginni Filaments Ltd.  
D-196, Sectr-63  
Noida – 201 307
27. Shri Shekhar Agarwal  
Chairman & Managing Director  
Maral Overseas Ltd.  
Bhilwara Towers  
A-12, Sector-1, Noida – 201 301
28. Shri Ashish Bagrodia  
Chairman & Managing Director  
Winsome Textile Industries Ltd  
SCO 191-192, Sector 34 A  
Chandigarh – 160 022

29. Shri Rajeev Mehani  
Sr. Vice President  
Vardhman Textiles Ltd.  
Chandigarh Road  
Ludhiana – 141 010
30. Prof. Manjeet Jassal  
Professor  
Deptt. of Textile Technology  
Indian Institute of Technology  
Hauz Khas  
New Delhi – 110 016
31. Prof. Ravishankar Chattopadhyay  
Professor  
Deptt. of Textile Technology  
Indian Institute of Technology  
Hauz Khas  
New Delhi - 110 016
32. Dr. J.V. Rao  
Former DG & Advisor - NITRA  
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Chennai - 600 020
33. Shri R.C. Kesar  
PNC 024 The Pinnacle  
DLF City Phase V  
Sector 43  
Gurgaon - 122 009 (Haryana)
34. Shri Naveen Gupta  
Partner  
Star Safety Hub  
I-31B, DLF Industrial Area, Phase-1  
Faridabad – 121 003
35. Shri Rajeev Agarwal  
CEO  
Geo Sys India Infrastructures P. Ltd.  
C-56A/28, Sector-62  
Noida – 201 309 (U.P.)
36. Shri L.N. Jhunjhunwala  
LNJ Bhilwara Group  
Bhilwara Towers  
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Noida – 201 301
37. Shri Sharad Jaipuria  
Chairman & Managing Director  
Ginni International Ltd.  
2<sup>nd</sup> Floor, Shanti Chamber  
11/6B, Pusa Road  
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38. Shri Shishir Jaipuria  
Chairman & Managing Director  
Ginni Filaments Ltd.  
H-6, Sector-63  
Noida – 201 301

39. Dr. Rikhab Chand Jain  
Chairman  
T.T. Limited  
879, Master Prithvi Nath Marg  
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Karol Bagh  
New Delhi – 110 005
40. Representative  
Federation of Hosiery Manufacturers'  
Association of India  
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1, Ho Chi Minh Sarani  
Kolkata – 700 071
41. Representative  
The Cotton Corpn. of India Ltd.  
Kapas Bhawan, Plot No. 3/A  
Sector-10, CBD – Belapur  
Navi Mumbai – 400 614

**MEMBERS OF THE FINANCE & ADMINISTRATIVE  
SUB-COMMITTEE 2022-2023**

- |    |                                     |   |
|----|-------------------------------------|---|
| 1. | Shri Vidit Jain<br>(Chairman – FAC) | Jt. Managing Director<br>Pasupati Spg. & Wvg. Mills Ltd.<br>127, 128, 1 <sup>st</sup> Floor, Tribhuvan Complex<br>Ishwar Nagar<br>Nehru Place, Mathura Road<br>New Delhi - 110 065      |
| 2. | Shri Raj Kumar Jain                 | Managing Director<br>Zonac Knitting Machines Pvt. Ltd.<br>Plot No.18&19, Ecotech Part-1<br>D-2, Site-B, Surajpur Industrial Area<br>Greater Noida – 201 306<br>Distt. Gautam Budh Nagar |
| 3. | Shri Sandeep Hora                   | Partner/CEO<br>Aeronav Industrial Safety Appliances<br>C-36, 3 <sup>rd</sup> Floor, Panchsheel Enclave<br>New Delhi – 110 016   |
| 4. | Shri Dinesh Nolkha                  | Managing Director<br>Nitin Spinners Ltd.<br>12, Badal Textile Market<br>Pur Road<br>Bhilwara - 311 001 (Raj.)   |
| 5. | Shri S.K. Kapoor                    | Managing Director<br>Surya Processors Pvt. Ltd.<br>619, Bistrakh Road<br>Village Chapraula<br>Distt. Ghaziabad - 201 001  |
| 6. | Shri Sanjay Kumar Jain              | Managing Director<br>T.T. Ltd.<br>879, Master Prithvi Nath Marg<br>Opp. Ajmal Khan Park, Karol Bagh<br>New Delhi - 110 005  |
| 7. | Shri Ramesh Kumar Jain              | Chairman-cum-MD<br>Pasupati Spg & Wvg Mills Ltd.<br>127, 128, 1 <sup>st</sup> Floor, Tribhuvan Complex<br>Nehru Place, Mathura Road<br>Ishwar Nagar , New Delhi - 110 065               |
| 8. | Shri R.L. Nolkha                    | Chairman<br>Nitin Spinners Ltd.<br>16-17 KM Stone, Chittor Road<br>Hamirgarh – 311 025<br>Bhilwara (Rajasthan)  |

9. Shri Shishir Jaipuria  
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Chairman & Managing Director  
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Bhilwara Towers  
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Noida – 201 307
21. Shri Naveen Gupta  
Partner  
Star Safety Hub  
I-31B, DLF Industrial Area, Phase-1  
Faridabad – 121 003

**MEMBERS OF THE RESEARCH ADVISORY COMMITTEE 2022-2023**

1. Shri Sandip Hora  
(Chairman RAC) C.E.O.  
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E-24, Secor-7,  
Noida-201 301
2. Shri Raj Kumar Jain Managing Director  
Zonac Knitting Machines Pvt. Ltd.  
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Distt. Ghaziabad - 201 001
6. Shri Sanjay Kumar Jain Managing Director  
T.T. Ltd.  
879 Master Prithvi Nath Marg  
Opp. Ajmal Khan Park, Karol Bagh  
New Delhi - 110 005
7. Dr. Arindam Basu Director General  
NITRA  
Sector 23, Raj Nagar  
Ghaziabad – 201 002
8. Shri Abir Chakrabarti Head (TRADC)  
Textile Research & Application  
Development Centre,  
Birla Dham Kharach, Kosamba (R.S.)  
Distt. Bharuch – 394 120 (Gujarat)

- |     |                              |   |
|-----|------------------------------|---|
| 9.  | Dr. T.V. Sreekumar           | Director BTRA<br>Lal Bahadur Shastri Marg<br>Ghatkopar (West) Mumbai –400 086   |
| 10. | Shri Arvind Yadav            | Chairman cum Managing Director<br>Arikav Textiles Ltd.<br>C-4, Site-IV, UPSIDC Indl. Area<br>Kasna Road, Greater Noida<br>Gautam Budh Nagar (U.P)       |
| 11. | Dr. Amit Rawal               | Professor<br>Deptt. of Textile Technology Indian<br>Institute of Technology<br>Hauz Khas, New Delhi - 110 016   |
| 12. | Prof. Ashwini Kumar Agrawal  | Professor<br>Deptt. of Textile Technology Indian<br>Institute of Technology<br>Hauz Khas, New Delhi - 110 016   |
| 13. | Prof. Abhijit Majumdar       | Professor<br>Deptt. of Textile Technology Indian<br>Institute of Technology<br>Hauz Khas, New Delhi - 110 016   |
| 14. | Commander Arun Samal (Retd.) | General Manager<br>Integrated Defence Products 140-<br>141, Toy City, Ecotech III<br>Greater Noida 201 306 (U.P.)                                       |
| 15. | Prof. B.S. Butola            | Professor<br>Deptt. of Textile Technology Indian<br>Institute of Technology<br>Hauz Khas, New Delhi – 110 016   |
| 16. | Dr. B.S. Yadav               | General Manager<br>Mahima Fibres Pvt. Ltd.<br>406, Corporate House, 4 <sup>th</sup> Floor Opp.<br>Jhabua Tower, 169 RNT Marg<br>Indore – 452 001 (M.P.) |
| 17. | Prof. Deepti Gupta           | Professor<br>Deptt. of Textile Technology Indian<br>Institute of Technology<br>Hauz Khas, New Delhi – 110 016   |

18. Dr. J.V. Rao  
Former DG & Advisor-NITRA  
No. 2, Second Street,  
Bakthavatchalam Nagar, Adyar  
Chennai-600 020
19. Prof. Mangala Joshi  
Professor  
Deptt. of Textile Technology Indian  
Institute of Technology  
Hauz Khas, New Delhi – 110 016
20. Prof. Manjeet Jassal  
Professor  
Deptt. of Textile Technology Indian  
Institute of Technology  
Hauz Khas, New Delhi – 110 016
21. Dr. N.N. Mahapatra  
Business Head Dyes  
Shree Pushkar Chemicals and Fertilizer Ltd.,  
Atlanta Centre, Goregaon (East)  
Mumbai
22. Shri Pragnesh Shah  
Director  
ATIRA  
P.O. Ambawati Vistar  
Ahmedabad – 380 015 (Gujarat)
23. Dr. Prakash Vasudevan  
Director  
SITRA  
13/37, Avanashi Road  
Coimbatore Aerodrome  
Coimbatore – 641 014 (T.N.)
24. Shri Prasanta Kumar Deka  
Vice President – Sales & Marketing  
Rieter India Pvt. Ltd.  
Karegaon Bhima, Pune
25. Prof. R. Alagirusamy  
Professor & Head  
Deptt. of Textile Technology Indian  
Institute of Technology  
Hauz Khas, New Delhi – 110 016
26. Prof. Rabisankar  
Chattopadhyay  
Professor  
Deptt. of Textile Technology  
Indian Institute of Technology  
Hauz Khas, New Delhi 110 016

27. Shri R.C. Kesar  
PNC 024 The Pinnacle  
DLF City Phase V  
Sector 43  
Gurgaon-122 009 (Haryana)
28. Shri Sanjay Gulati  
Managing Director  
Growel Impex Pvt. Ltd.  
E-16, Greater Kailash, Part-II  
New Delhi - 110 048
29. Shri S.M. Dwivedi  
Chief Executive Officer  
Sara Textiles Ltd.  
Sara House, B-8, Sector-4  
Noida, Distt. G.B. Nagar

## LIST OF MEMBER UNITS

### A. Units in Rajasthan

1. Arham Spinning Mills
2. Ginni International Ltd.
3. J.C.T. Limited
4. Modern Threads (India) Ltd.
5. Modern Suitings
6. Nitin Spinners Ltd.
7. Orient Syntex
8. Prerna Syntex Ltd.
9. RSWM (Bhilwara unit)
10. RSWM (Banswara unit)
11. RSWM (Rishabdev unit)
12. Rajasthan Textile Mills Ltd.
13. Shree Rajasthan Syntex Ltd.
14. Shree Rajasthan Texchem Ltd.
15. Swatantra Bharat Mills, Tonk
16. Udaipur Cotton Mills -NTC
17. Banswara Syntex Ltd.

### B. Units in Haryana

1. Bhiwani Textiles
2. Bhiwani Synthetics Ltd.
3. CMS Impex India Pvt. Ltd.
4. D.C.M. Textiles
5. H.P. Cotton Textile Mills
6. Haryana Text Prints (Overseas Ltd.)
7. HRS Fibres Ltd.
8. H.P. Spg. Mills
9. K.C. Textiles Ltd.
10. Mittal Processes Pvt. Ltd.
11. National Woollen & Finishers
12. Pasupati Spg. & Wvg. Mills Ltd.
13. R.K. Dyeing Industries Ltd.
14. Sheena Exports
15. Swastika Woollen Mills
16. The Technological Institute of Textiles & Science
17. Jasch Industries Ltd., Sonapat
18. Chelsea Mills, Gurgaon
19. Tex Corp. Limited
20. Protech Textiles & Trims (P) Ltd.
21. Star Safety Mills
22. Keshav Exports

### C. Units in U.P.

1. ACI Oils Pvt. Ltd.
2. Alps Industries Ltd.
3. Awadh Textwood (P) Ltd.
4. Bureau Veritas Consumer Products Services (India) Pvt. Ltd.
5. Dewan Textiles
6. Ginni Filaments Ltd.
7. Gajroula Spinning Mills (T.T. Limited)
8. J.K. Synthetics Ltd.
9. Nirmal Fibres (P) Ltd.
10. Pasupati Acrylon Ltd.
11. Pawan Exports Pvt. Ltd.
12. Pasupati Fabrics
13. Shamken Multifab Ltd.
14. Shamken Spinners Ltd.
15. Sogo Fashions Pvt. Ltd.
16. Surya Processors Pvt. Ltd.
17. Mahavir Spinfab Pvt. Ltd.
18. Jayshree International
19. Orient Craft Limited
20. Sybly Industries Ltd.
21. Aeronav Industrial Safety Appliances
22. Radnik Auto Exports
23. Shahi Exports Pvt. Ltd.
24. Pilkhuwa Water Proofing Co. Pvt. Ltd.
25. Zonac Knitting Machine (I) Ltd.
26. Derpa Industrial Polymers (P) Ltd.
27. Icon Designs
28. Geosys India Infrastructures Pvt. Ltd.
29. Integrated Defence Products Pvt. Ltd.
30. Nexgen Fabrics Pvt. Ltd.
31. G.D. International
32. Ganpati Interglobe Pvt. Ltd.

#### N.T.C. Ltd.

1. Swadeshi Cotton Mills (Naini)
2. Swadeshi Cotton Mills (Mau)

### D. Units in Delhi

1. Gold Rock World Trade Ltd.
2. Indian Arts & Crafts Syndicate
3. J.P.C.
4. Neelam Threads Pvt. Ltd.
5. R.K. Silk Mills India Pvt. Ltd.
6. Radiant Exports, New Delhi
7. Growel Impex Pvt. Ltd.

8. Kay Tent Industries
9. U.S. Industries
10. Aktion Safety Solutions Pvt. Ltd.

#### **E. Units in Punjab**

1. Abhishek Industries Ltd.
2. Adhinath Dyg. & Fsg. Mills
3. Abhinav Cotspin Ltd.
4. Bhandari Exports
5. J.C.T. Ltd.
6. Kharar Textile Mills
7. Malwa Cotton Spg. Mills Ltd.
8. Malwa Cotton Mills Ltd.
9. Nahar Fibres Ltd.
10. Nahar Industrial Enterprises Ltd.
11. Nahar Exports Ltd.
12. Nahar Fabric Ltd.
13. Oswal Cotton Spg. Mills Ltd.
14. Rishab Spg. Mills
15. Rainbow Denim
16. Suraj Textile Mills
17. Vardhman Textiles Ltd.
18. Nahar Spinning Mills

#### **F. Units in Himachal Pradesh**

1. GPI Textiles (India) Ltd.
2. Himachal Fibres Ltd.
3. Malwa Cotton Spg. Mills Ltd.
4. Winsome Textile Ltd.

#### **G. Units in J&K**

1. Chenab Textile Mills

#### **H. Units in Madhya Pradesh**

1. Indo-Rama Textiles Ltd.
2. Maral Overseas Ltd.
3. Mid India Industries
4. Vikram Woollens Ltd.
5. Mahaveer Udyog
6. Kailadevi Traders

#### **I. Units in Maharashtra**

1. Surya Lakshmi Cotton Mills
2. Alok Industries Ltd.
3. Kusumgar Corporate India Pvt. Ltd.
4. Sunil Industries Ltd.
5. Continental Surface Solutions India Pvt. Ltd.

#### **J. Unit in Andhra Pradesh**

1. Shree Manufacturing Co. Ltd.

#### **K. Unit in West Bengal**

1. Jayashree Textiles
2. Frontier Protectivewear Pvt. Ltd.
3. Arruth Technical Performance Wear Pvt. Ltd.

#### **L. Unit in Karnataka**

1. Bhoruka Textile Ltd.

#### **M. Units in Tamil Nadu**

1. Shubh Swasan India Pvt. Ltd.
2. Loyal Textile Mills Ltd.

#### **N. Unit in Thailand**

1. Thai Acrylic Fibre Co.

#### **O. Units in Gujarat**

1. Arvind Ltd.
2. Reliance Industries Ltd.
3. Adient Arvind Automotive Fabrics India Pvt. Ltd.

#### **P. Units in Uttrakhand**

1. Kashi Vishwanath Textile Mill Pvt. Ltd.

## Total Member Units

### State-wise:

Andhra Pradesh	-	01	Punjab	-	18
Delhi	-	10	Rajasthan	-	17
Gujarat	-	03	Tamil Nadu	-	02
Haryana	-	22	Uttar Pradesh	-	34
Himachal Pradesh	-	04	West Bengal	-	03
Jammu & Kashmir	-	01	Uttarakhand	-	01
Karnataka	-	01			
Madhya Pradesh	-	06	<b>Overseas:</b>		
Maharashtra	-	05	Thailand	-	01

**Total No. of Member Units = 129**

**STAFF MEMBERS**  
(As on 31.03.2023)

NAME	DESIGNATION	QUALIFICATION
<b>Dr. Arindam Basu</b>	<b>Director General</b>	<b>B.Sc. Tech. (Text. Tech.), M. Text., Ph.D., PGDBIM, FIE, FSAB, FTA</b>
<b>Chemical &amp; Quality Evaluation Division:</b>		
<b>Dr. M.S. Parmar</b>	<b>Director Head of Department</b>	<b>M.Sc., Ph.D, PGDMM, DCPA</b>
Dr. Nidhi Sisodia*	Sr. Scientific Officer	M.Sc., M.Tech. (Text. Chem.), Ph.D.
Mr. Kuldeep Singh	Jr. Scientific Officer	M.Sc., PG Dip. in QC & ISO 9000, ATA
Mr. Swami Sharan	Jr. Scientific Officer	M.Sc. (Chem.), ATA
Ms. Anjali Yadav*	Research Assistant	B.Sc. (Biotechnology), M.Sc. (Biotechnology)
Mr. Sonu Kushwaha*	Research Assistant	B.Sc. Hons. (Biotechnology), M.Sc. Hons. (Microbiology)
Mr. Devendra Singh	Sr. Investigator	B.A.
Mr. Dushyant Kumar	Sr. Investigator	B.Sc.
Mr. Shaju Kumar T.P.*	Data Processor	B.A. (Sociology)
<b>Engineering Division:</b>		
Mr. Vikas Sharma	Principal Scientific Officer Head of Department	B.E.(Mech.), Adv. Dip. in MM & CM, BEE Cert. Energy Auditor
Mr. Raj Kumar Saini*	Asstt. Engineer (Elect.)	Diploma (Electrical), BEE Cert. Energy Manager
<b>Environmental Engineering Division:</b>		
Dr. Palak Bansal*	Sr. Scientific Officer (Env.)	B.Tech. (Biotechnology), M.Tech. (Env. Sc. & Tech.), Ph.D.

<b>NAME</b>	<b>DESIGNATION</b>	<b>QUALIFICATION</b>
Mrs. Annu Kumari*	Scientific Officer	Dip. in Computer Appn., PGDM-DLP/HB in Mktg. Mgt., PGDM-DLP/HB in Business Admn., M.Sc. Tech. (Env. Sc. & Tech.)
Mr. Harendra Singh	Sr. Investigator	M.Sc. (Chem.)
<b>Garment Centre:</b>		
Mr. Vivek Agarwal	Deputy Director Dean-Textile Technology	B.Tech, PGDBM, MS (by Research)
Mr. M.M. Tiwari*	Asstt. Director	B.Sc., Dip. in Text.
Dr. Shweta Saxena	Principal Scientific Officer	M.Sc. (Textile & Clothing) M. Phil, Ph.D.
Mr. Sanjay Gupta	Jr. Scientific Officer	M.Sc.
Mrs. Geeta Sharma*	Faculty	Dip. in Fashion Designing & Garment Tech., B.A., AMEIM
<b>Mechanical Processing Division (Spg. &amp; Wvg.):</b>		
Mr. Kushagra Prakash*	Principal Scientific Officer	B.Text. (Text. Tech.) M.F. Tech.
Mr. M.K. Bansal	Sr. Scientific Officer	Dip. in Text. Tech., MBA
Mr. Lalit Giri Goswami*	Sr. Scientific Officer	B.E. (Textile Tech.)
Mr. A.K. Pandey*	Project Manager Flax Spinning	B.Text. (Tech.)
Mr. Ravi Sonkar*	Scientific Officer	Dip. in Text. Tech., B.Tech. (Text. Engg.), M.Tech. (Text. Tech.)
Mr. Satyanarayana V.	Sr. Tech. Asstt.	SSC, ITI, ATA
<b>Marketing &amp; Publications:</b>		
Mr. Rajendra Kumar Gaur*	Asstt. Director Head of Department	B.Text., PG Dip. in Mktg. Mgmt., Dip. in TQM & ISO 9000, Dip. in Prodn. Mgmt., MIE

<b>NAME</b>	<b>DESIGNATION</b>	<b>QUALIFICATION</b>
Mr. Puneet Kumar Singh*	Business Development Manager	B.Sc., MBA
Mr. Partha Basu	Public Relations Officer	B. Com, PGD in Advtg. & Mktg. Mgmt.

**Physics & Quality Evaluation Division:**

Dr. Neha Kapil	Principal Scientific Officer Head of Department	M.Sc. (Textile & Clothing), M. Phil., Ph.D.
Mrs. Seema Sharma	Sr. Tech. Asstt.	M.Sc.
Mr. R.P. Tripathi	Sr. Investigator	B.A.
Mr. G.C. Bajpai	Sr. Investigator	B.Sc. (Chem.)
Mr. Jaswant Singh*	Sr. Tech. Asstt.	Intermediate
Mr. Deepak Jangra*	Technical Assistant	Dip. in Textile Design

**Polymer & Technical Textiles Division:**

Dr. Neha Kapil	Principal Scientific Officer Head of Department	M.Sc. (Textile & Clothing) M. Phil, Ph.D.
Mr. Yogesh Kumar	Sr. Tech. Asstt.	M.Sc. (Chem.), ATA
Mr. Prakash	Sr. Investigator	Intermediate, ITI

**Research & Development Cell:**

Mr. Prakash Arun Khude*	Sr. Scientific Officer	B.Text. (Textile Tech.), M.Tech. (Textile Engg. & Mgt.)
Mr. Pankaj Kumar*	Scientific Officer	B.Tech. (Textile Chemistry), M.Tech. (Textile Chemistry)

**Software Development Centre:**

Dr. B.K.Sharma	Asstt. Director Head of Department	M.Sc., M.Tech. (IT), Ph.D., SMCSI, FIETE, MIAE, MCSTA, SMIACIT
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<b>NAME</b>	<b>DESIGNATION</b>	<b>QUALIFICATION</b>
Mr. Krishan Kumar Dewan	Principal Scientific Officer	B.A., BHM, e-Commerce, PGDBM, M.Sc. (Comp. Sc.)
Mr. Avnish Kumar Sharma	Sr. Scientific Officer	M.Sc., PGD in Computer Programming, Diploma in Operations Management, MCA
<b>Library:</b>		
Mr. Abbas Raza	Asstt. Librarian	B.Sc., M.A., DPA, PGDCA, MLISC
<b>Administration &amp; Accounts:</b>		
Mr. Atul Baijal*	Dy. Manager (Accounts) Head of Department	M.Com, L.L.B., MBA
Mr. Puneet Agrawal	Dy. Manager (Accounts)	B.Com., ACA
Mr. N. Govindaraj*	Data Processor	SSLC
Mr. S.A.A. Rizvi	Sr. Supervisor (Purchase)	B.Sc., PG Dip. in Computer Science & Application, MBA
Mr. Amit J. Singh*	Sr. Supervisor (Accounts)	M.Com., MBA
Mr. Rajeev Singh Rawat	Sr. Supervisor (Accounts)	B. Com.
Mr. V.K. Singhal	Sr. Supervisor (Accounts)	M.Com.
Mr. P.K. Butola*	Store & Purchase Sup.	M.A.
Mrs. Saraswathi Devi*	Receptionist	B.A., Cert. in Computer Application, Cert. in Typewriting Lower & Higher
<b>Directorate:</b>		
Mr. Hari Om Sharma*	PA to Director General	B.A., LL.B., PG Dip. in Personnel Mgt., Dip. in Stenography

NAME	DESIGNATION	QUALIFICATION
<b>NITRA Technical Campus:</b>		
Mr. Sanjeev Shukla	Asstt. Director	B.Sc., B.Text., M.Tech., PGDBM
Dr. Meghna Tyagi	Asstt. Prof. (Maths)	M.Sc., Ph.D.
Mr. R.C. Yadaw	Asstt. Prof. (Mechanical)	B.Tech. (Mech. Engg.), M.Tech. (Machine Design)
Mr. A.P. Srivastava*	Asstt. Prof. (CSE)	B.Tech. (IT), M.Tech. (CS), PGDBM
Mr. Nitin Kumar Sharma*	Asstt. Prof. (CSE)	B.Tech. (CSE), M.Tech. (CSE)
Mr. Sourabh Jain*	Asstt. Prof. (CSE)	B.E. (ECE), M.Tech. (Aerospace Engg.-D&C)
Ms. Divya Pachauri*	Asstt. Prof. (CSE-AIML)	B.Tech. (CSE), M.Tech. (CSE)

### **SUPPORTING STAFF (TECHNICAL)**

Environmental Engineering Division:

*Jr. Investigator:*

Mr. D. Chakraborty\*

Physics & Quality Evaluation Division:

*Laboratory Assistant:*

Mr. Saurabh Dhar\*

Ms. Prachi Raj\*

Mr. Shantanu Kumar Ojha\*

*Peon:*

Mr. Ranveer Singh

*Lab Attendant:*

Mr. Mohd. Nazim\*

*Trainee:*

Ms. Annu Yadav\*

Ms. Priyanka Singh\*

Chemical & Quality Evaluation Division:

*Jr. Investigator:*

Mr. Umesh Pathak

*Lab Instructor:*

Mr. Sumit Kumar\*

*Laboratory Asstt.:*

Mr. Nirbhay Katiyar\*

*Lab Attendant:*

Mr. Sandeep Kumar\*

*Trainee:*

Mr. Vikas Sahu\*

Polymer & Technical Textiles Division:

*Jr. Investigator:*  
Mr. Mohit Pandey\*

*Laboratory Assistant:*  
Ms. Tanu Walia\*

*Trainee:*  
Mr. Ajeet Kumar Yadav\*  
Mr. Sanjeev Kumar Srivastav\*  
Mr. Sidhanta Pal\*

Mechanical Processing Division (Spg. & Wvg.):

*Weaver Helper:*  
Mr. V. Ramesh

Garment Centre:

*Trainer Apparel Manufacturing:*  
Mr. Asif Ali

Engineering Division:

*Electrician:*  
Mr. Sandeep Sharma\*  
Mr. Sachin Kumar\*

R&D Cell:

*Laboratory Assistant:*  
Mr. Rajkumar Gautam\*

NITRA Technical Campus:

*Laboratory Instructor:*  
Mr. Madan Gopal Pal\*  
Mr. Rohitash Singh\*

*Laboratory Assistant:*  
Mr. Dharmendra Kumar\*  
Mr. Shiva Choudhary\*  
Mr. Aakash Gaur\*

*Computer Maintenance Asstt.:*  
Mr. Raju Yadav\*

*Project Assistant:*  
Mr. Vinay Pratap\*

*Admission Executive:*  
Mr. Himanshu Kaushik\*

**SUPPORTING STAFF (NON-TECHNICAL)**

Administration:

*Sewing Machine Technician:*  
Mr. Mukesh Kumar Tomar

*Driver:*  
Mr. Ganesh Lal

*Office Attendant:*  
Mr. Narender Singh

*Peon:*  
Mr. Sukh Pal Sharma

Accounts:

*Sr. Accounts Assistant:*  
Mr. Manjeet Singh Sachdeva\*

*Accounts Assistant:*  
Mr. Hemand Kumar\*  
Mr. Sanjay Kumar\*

*Assistant:*  
Mrs. Santoshi Rana\*

Library:

*Draughtsman:*  
Mr. M.K. Tomar

*Peon:*  
Mr. Govind Ram\*

Directorate:

*Daftari:*  
Mr. Dharamveer Singh

*Driver:*  
Mr. Anil Kumar

*Peon:* :  
Mr. Ramveer Singh  
Mr. Ankit Choudhary\*

NITRA Technical Campus:

*Peon:*  
Mr. Rajpal Singh\*

*Caretaker Boys' Hostel cum  
Supervisor:*  
Mr. Yogesh Kumar Tiwari\*

*Caretaker Girls' Hostel:*  
Mrs. Kala Naidu\*  
Mrs. Kusum\*

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\*On Contract

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**SENIOR OFFICERS AT POWER LOOM SERVICE CENTRES / TESTING LABORATORIES**

---

<b>NAME</b>	<b>STATUS</b>	<b>QUALIFICATION</b>	<b>DIVISION</b>
Mr. Kushagra Prakash*	Principal Scientific Officer	B.Text. (Text. Tech.) M.F. Tech.	PLSC, Meerut
Mr. Tejpratap Singh*	Technical Officer	B.Tech. (Text. Tech.)	PLSC, Kanpur
Mr. Tejpratap Singh*	Technical Officer	B.Tech. (Text. Tech.)	PLSC, Bhilwara
Mr. S. Ansari	Resident Manager	Dip. in Hand. Tech.	PLSC, Gorakhpur
Mr. S.K. Pathania	T/F	High School	PLSC, Ludhiana
Mr. S. Ansari	Resident Manager	Dip. in Hand. Tech.	PLSC, Tanda
Mr. Dharmesh Dubey*	Officer-in-charge	B.Tech. (Text.Tech)	PLSC, Panipat
Mr. Atul Kr Sharma	Jr. Scientific Officer	B.Sc.	PLSC, Varanasi

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\*On Contract

**RESIGNATIONS / EXPIRY OF CONTRACTS, RETIREMENTS AND TERMINATION  
DURING THE PERIOD APRIL 2022 TO MARCH 2023**

<b>S.No.</b>	<b>NAME</b>	<b>DIVISION</b>	<b>DESIGNATION</b>
<b>A) Resignations / Expiry of contract:</b>			
1.	Ms. Rupali*	MPD (Spg. & Wvg.)	Sr. Scientific Officer
2.	Mr. Akshay Jolly*	Accounts	Accounts Assistant
3.	Mr. Durgesh Raj Maurya*	CQE & R&D(P)	Scientific Officer
4.	Mr. Vineet Tyagi *	Mktg. & Pub.	Sr. Manager (Business Dev.)
5.	Ms. Niranjana G.*	Env. Engg.	Technical Officer (Env.)
6.	Mr. Neeraj Aggarwal	MPD (Spg. & Wvg.)	Assistant Director
7.	Mr. Vipin Jindal*	PQE	Laboratory Assistant
8.	Mr. Muhd. Asif*	PLSC, Tanda	Laboratory Assistant
<b>B) Retirements:</b>			
1.	Mr. Jaswant Singh Yadav	PQE	Sr. Tech. Asstt.
2.	Mr. Abhijit Pal	MPD (Spg. & Wvg.)	Officiating Director
3.	Mr. Amit J. Singh	Accounts	Sr. Supervisor (Accounts)
<b>C) Termination:</b>			
1.	Mr. V.S. Khoiwal*	PLSC, Bhilwara	Resident Manager

\*On Contract

## RESEARCH PAPERS PUBLISHED AND PRESENTED

S. No.	Title	Author(s)	Publication/ Place	Date
1.	Movie recommendation system modeling using hybrid classification approach	Anand Prakash Srivastava & Sanjay Kumar Sinha	ICAAR-2023	March 31, 2023
2.	Surface modification of cotton to reduce water consumption in wet processing	M.S. Parmar	6 <sup>th</sup> National Conference , on Textile Recycling and Sustainable Apparel Design organized by Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore	March 3-4, 2023
3.	Development of regenerated bamboo fibre from Bambusa Tulda and Dendrocalmus Strictus	Arindam Basu, Nidhi Sisodia,	TEXCON-2023 "TEXTILE RECYCLING AND SUSTAINABLE APPAREL DESIGN'	March 2023.
4.	Fungal Infection and Allergy related Disease prediction with the help of machine learning XGB Classifier and Decision Tree Algorithms	Ms. Divya Pachauri, Arvind Dangi	International Journal of Scientific Development and Research (IJSDR)	February 18, 2023
5.	Lightweight indigenously developed fire-fighter suit	M.S. Parmar & Nidhi Sisodia	3 <sup>rd</sup> International conference on Functional Textiles & Clothing, IIT Delhi	February 10-12, 2023
6.	Microencapsulation of lantana camara essential oil for mosquito repellent and antimicrobial properties of cotton	Rupali Kakaria, Neha Singh & M.S. Parmar	3rd International conference on Functional Textiles & Clothing, IIT Delhi	February 10-12, 2023
7.	A Review on Mosquito Protective Finish on Textiles	Rupali Kakaria, Neha Singh & M.S. Parmar	Colourage, p 28-37	January 2023

<b>S. No.</b>	<b>Title</b>	<b>Author(s)</b>	<b>Publication/ Place</b>	<b>Date</b>
8.	Dhaincha plant:A sustainable approach in Technical Textiles	Surabhi Das, Anita Rani & Nidhi Sisodia	National Conference on “Textile recycling and sustainable apparel design”	March 3-4,2023
9.	Machine Learning and its Application	B.K. Sharma	13 <sup>th</sup> International Conference on Cloud Computing and Data Science Engineering, Organized by Amity University, Noida	January 19-20, 2023
10.	Pine needle fibre for sustainable societal development of Indian Himalayan Region,	Arindam Basu Nidhi Sisodia	National Conference on “Natural fibre for sustainable societal development” Kolkata	January, 3, 2023,
11.	Chapter: Application of Nanotechnology-Based UV finishes on Textiles and their evaluation	M.S. Parmar	Book: Fundamentals of Nano-Textile Science, Apple Accademic Press exclusively co-publisher with CRC Press (Taylor & Francis Group)	December 2022
12.	Thermal, mechanical and comfort performance of various modacrylic fibre blended fabric	M.S.Parmar & Noopur Sonee	Indian Journal of Fibre & Textile Research, Vol. 47, P: 385-394	December 2022
13.	NITRA's initiative to save human lives	M.S. Parmar	National Conclave on Technical Textiles: Protech jointly organised by NITRA and ITTA	November 16, 2022
14.	A New Approach to Develop a Faded Denim Fabric to Conserve Water	M.S.Parmar, Durgesh Raj Maurya & Nidhi Sisodia	60 <sup>th</sup> Joint Technological Conference organized at SITRA, Coimbatore	November 11-12, 2022

<b>S. No.</b>	<b>Title</b>	<b>Author(s)</b>	<b>Publication/ Place</b>	<b>Date</b>
15.	Extraction of cellulosic fibre from Indian Bamboo using environment friendly process	Nidhi Sisodia & Arindam Basu	60 <sup>th</sup> Joint Technological Conference organized at SITRA, Coimbatore	November 11-12, 2022
16.	Air Cleaner Home Textiles Capturing Carbon Dioxide and other Pollutants from Indore Air	Arindam Basu, Pankaj Kumar, M.S. Parmar & R.K. Gaur	60 <sup>th</sup> Joint Technological Conference organized at SITRA, Coimbatore	November 11-12, 2022
17.	Development of light-weight indigenous firefighter suit	M.S. Parmar, Shweta Chauhan & Nidhi Sisodia	60 <sup>th</sup> Joint Technological Conference organized at SITRA, Coimbatore	November 11-12, 2022
18.	Exploring the application of Dhaincha (Sesbania aculeata) fiber in Technical Textiles	Surabhi Das, Anita Rani & Nidhi Sisodia	International e-conference on Textiles for Advanced Technologies	November 11-13, 2022
19.	Application of textiles and agro waste in developing composite and textile products, Promoting Circular Apparel in India through Research and Innovation	M.S.Parmar	Organised by Centre for Responsible Business (CRB)	November 4, 2022
20.	Mosquito Repellent Textiles and their Evaluation: A Review	Rupali Kakaria, Neha Singh & M.S. Parmar	Journal of the Textile Association, Vol 83 No. p 237-243	Nov-Dec. 2022
21.	Mosquito Repellent Textiles and their Evaluation: A Review	Rupali Kakaria, Neha Singh & M.S. Parmar	Journal of the Textile Association, Vol 83 No 4, p 237-243	Nov-Dec, 2022

<b>S. No.</b>	<b>Title</b>	<b>Author(s)</b>	<b>Publication/ Place</b>	<b>Date</b>
22.	Importance of Robotics and Automation in Industry	B.K. Sharma	Workshop on Robotics and its application (ROBOLINE) organized by RKGIT in association with IEEE Section.	Sept 12, 2022
23.	Smart Textiles: Use in health monitoring and sportswear	Arindam Basu	34 <sup>th</sup> National Convention of Textile Engineers and National Seminar on "Innovative Textile Materials" organized by Institution of Engineers (India) Kanpur local centre in association with The Textile Assn . (India) U.P. Unit	Sept 11, 2022
24.	Extraction of Indian bamboo fibre using eco-friendly benign process	Nidhi Sisodia and Dr. Arindam Basu	34 <sup>th</sup> National Convention of Textile Engineers and National Seminar on "Innovative Textile Materials" organized by Institution of Engineers (India) Kanpur local centre in association with The Textile Assn . (India) U.P. Unit	Sept 10, 2022
25.	Sustainability in Textile & Apparel Industry – Role of Fibres	Arindam Basu	Webinar organized by North India Section of Textile Institute Manchester NISTI on Sustainability in Textile Industry	August 13, 2022

<b>S. No.</b>	<b>Title</b>	<b>Author(s)</b>	<b>Publication/ Place</b>	<b>Date</b>
26.	Recycling and Application of Textile & Agriculture Waste in different Products	M.S. Parmar	Webinar organized by Textile Association of India, Delhi	May 14, 2022
27.	Several Movie Recommendation System Using Filtration and Machine Learning Methods: Review	Anand Prakash Srivastava and Kamlesh Rana	International Conference on Contemporary challenges in Management ,Engineering, Education, Technology & Applied Sciences organized by MIMT & SEMS Welfare Foundation	April 9–10, 2022
28.	How to Dye Cotton with Disperse Dye?	M.S. Parmar, Durgesh Raj Maurya and Nidhi Sisodia	Chapter written in a book " Unfolding Latest Researches and Practices in Fashion and Textiles " Edited by Dr. Anu H. Gupta, Chairperson, UIFT & VD, Panjab University, Chandigarh. Edition 2022, Published by MANAK Publications Pvt. Ltd, New Delhi	2022

## TRAINING PROGRAMS, WORKSHOPS AND SEMINARS CONDUCTED

S. No.	Nature of Program	Venue	Division	No. of batches	No. of trainees
1.	Training of Trainers	M/s. Sangam India Ltd., Bhilwara	MPD (Spg. & Wvg.)/ Mktg. & Pub.	01	23
2.	Faculty Development Program on MS-Excel organized by NITRA	NTC, Ghaziabad	CSE	01	06
3.	Faculty Development Program on Application of Statistical Techniques in Textiles organized by NITRA	NTC, Ghaziabad	CSE and Garment Centre	01	08
4.	Two days program on Application of gray scale	NITRA, Ghaziabad	CQE	01	02
5.	Three days program on Physical and chemical properties of textiles related to parachute fabric	NITRA, Ghaziabad	CQE	01	03
6.	One month program on Physical and chemical properties of textiles	NITRA, Ghaziabad	CQE	01	02
7.	Application of Gray Scale	NITRA, Ghaziabad	CQE	01	02
8.	Converting Agro and Textile Waste into different Composite Materials (2-week AICTE Training and Learning (ATAL) Academy, FDP on Sustainable and Innovative Approaches in Design)	Department of Design, Banasthali Vidyapith, Rajasthan	CQE	01	52
9.	Introduction to Startup/Entrepreneurship & Internship Drive	Nitra Technical Campus, Ghaziabad	CSE	01	33
10.	Expert Lecture on Robotics & Automation (ROS)	Nitra Technical Campus,	CSE	01	49

<b>S. No.</b>	<b>Nature of Program</b>	<b>Venue</b>	<b>Division</b>	<b>No. of batches</b>	<b>No. of trainees</b>
		Ghaziabad			
11.	IBM Skills Build Career Awareness Workshop	NITRA Technical Campus, Ghaziabad	CSE	01	30
12.	Textile and Apparel Manufacturing	NITRA, Ghaziabad	Garment Centre	01	32
13.	Textile Manufacturing & Testing	NITRA, Ghaziabad	Garment Centre	01	09
14.	Fashion Marketing and Merchandising	NITRA Ghaziabad	Garment Centre	01	27
15.	Apparel Design and Quality Control	NITRA Ghaziabad	Garment Centre	01	16
16.	Apparel Production and Industrial Engg	NITRA Ghaziabad	Garment Centre	01	16
17.	Textile Technology and Management (DLP)	NITRA Ghaziabad	Garment Centre	01	32
18.	Apparel Manufacturing and Merchandising (DLP)	NITRA Ghaziabad	Garment Centre	01	19
19.	Quality Evaluation of Textiles and Garments (DLP)	NITRA Ghaziabad	Garment Centre	01	22

## INSPECTION & CONSULTANCY SERVICES

S.No.	Type of Inspection / Consultancy	Division	No. of Units
<b><u>Inspection Services:</u></b>			
1.	Third party inspection of Woolen Jersey	MPD (Spg & Wvg)/ PQE	09
2.	Third Party Inspection of Cloth Serge	MPD (Spg & Wvg)	01
3.	Third Party Inspection of Full Body Protector (male/ female)	MPD (Spg & Wvg)/ PQE	04
4.	Third Party Inspection of cloth Gabardine	MPD (Spg & Wvg)/ PQE	04
5.	Third Party Inspection of Terry Towel	MPD (Spg & Wvg)/ PQE	06
6.	Third party inspection of Cotton Tape Niwar	MPD (Spg & Wvg)/ PQE	01
7.	Third Party Inspection of Underpants Thermal	MPD (Spg & Wvg)	02
8.	Third Party Inspection of Rucksack/Combat Backpack	MPD (Spg & Wvg)/ PQE	03
9.	Third Party Inspection of Vest thermal (1 unit),	MPD (Spg & Wvg)	02
10.	Third Party Inspection of Water Bottle	MPD (Spg & Wvg)	01
11.	Third Party Inspection of T Shirt	MPD (Spg & Wvg)/ PQE	13
12.	Third Party Inspection of Shirt Angola Cloth	MPD (Spg & Wvg)/ PQE	05
13.	Third Party Inspection of Rain Cape	MPD (Spg & Wvg)/ PQE	01
14.	Third Party Inspection of Blanket	MPD(Spg & Wvg)/PQE	13
15.	Third Party Inspection of Bala Clava	MPD(Spg & Wvg)/PQE	02

<b>S.No.</b>	<b>Type of Inspection / Consultancy</b>	<b>Division</b>	<b>No. of Units</b>
16.	Third Party Inspection of NYCO Cloth Camouflage	MPD(Spg & Wvg)/ PQE	02
17.	Third Party Inspection of Woolen Socks	MPD(Spg & Wvg)/PQE	01
18.	Third Party Inspection of Riot Control Helmet with Visor and Wire mesh	MPD(Spg & Wvg)/PQE	01
19.	Third Party Inspection of Cloth Disruptive Poly Cotton	MPD(Spg & Wvg)/PQE	06
20.	Third Party Inspection of Coat Combat disruptive	MPD (Spg & Wvg/ PQE	06
21.	Third Party Inspection of Rain Poncho	MPD (Spg & Wvg/ PQE	01
22.	Third Party Inspection of Mattresses	MPD (Spg & Wvg)	01
23.	Third Party Inspection of Gloves	MPD (Spg & Wvg)	01

**Consultancy Services:**

1.	Poor Phenolic yellowing rating in acrylic yarn	R&D Cell	01
2.	Setting up ZLD plant	Env. Engg./ R&D Cell	01
3.	Pollution prevention and efficient water use in Panipat	R&D Cell	01
4.	Breaking and loop skipping problem in sewing thread used in terry towel	MPD (Spg. & Wvg.)/ R&D Cell	01
5.	Consultancy on UP Govt. Textile Policy	PLSC	01
6.	Energy audit	Engg. Div.	05
7.	Manpower audit	MPD (Spg. & Wvg.)/ Engg.	02
8.	Study on performance assessment of card using new card clothing development	MPD (Spg. & Wvg.)	01
9.	Energy Conservation Study in Composite Mill	Engg. Div./ MPD (Spg. & Wvg.)/ R&D Cell	01

<b>S.No.</b>	<b>Type of Inspection / Consultancy</b>	<b>Division</b>	<b>No. of Units</b>
10.	Energy Mapping study in Milk Plants	Engg. Div.	05
11.	Workload and Manpower Assessment Study in Spinning/ Weaving/ Processing of Denim Manufacturing Mill	MPD (Spg. & Wvg.)/ R&D Cell/ Engg. Div.	01

## STAFF PARTICIPATION IN HRD PROGRAMS

Sl. No.	Details of the program	Venue	Date	Participants status
1.	National Conference on Geo-Textiles, organised by Confederation of Indian Industry (CII) ) in partnership with the Ministry of Textiles, under the National Technical Textiles Mission (NTTM)	Shangri-La Eros Hotel, New Delhi	March 24, 2023	Dr. Nidhi Sisodia (As Participant)
2.	Webinar Texcon-2023-Textile Recycling and Sustainable Apparel Design	Online	March 3, 2023	Dr. Nidhi Sisodia (As Participant)
3.	Seminar on Khadi and Handloom for Sustainable Fashion	LHC, IIT Delhi	February 4, 2023	Dr. Nidhi Sisodia (As Participant)
4.	Workshop on “Understanding Research Misconduct: Fabrication, Falsification and Plagiarism- Orientation towards Quality Research”	MRIIRS, Faridabad	27 <sup>th</sup> Dec. 2022	Ms. Divya Pachuri (As Participant)
5.	A session in Technical Textiles for protection in a workshop, organized by NTTM, Gol	IIT, Delhi	December 2, 2022	Dr. Arindam Basu (As Session Chairman)
6.	Online program on Introduction and benefits of Industrial Revolution 5.0	NITRA, Ghaziabad	September 30, 2022	Mr. R.K. Gaur (As Participant)
7.	Webinar on NABCB Accreditation for Inspection Bodies, and its Benefits to Industry & Government Bodies	NITRA, Ghaziabad	September 29, 2022	Mr. R.K. Gaur (As participant)

<b>Sl. No.</b>	<b>Details of the program</b>	<b>Venue</b>	<b>Date</b>	<b>Participants status</b>
8.	Creating And Sustaining Happiness For Faculty Members	Jaipuria Institute of Management, Noida	September 2, 2022	Mr. Anand Prakash Srivastava (As Delegate)
9.	17 <sup>th</sup> International Conference on Apparel Home Textiles OGTC	ONLINE	September 24, 2022	Vivek Agarwal, Shweta Saxena & Geeta Sharma (As Participants)
10.	Basics of Research Methodology	Kanpur Institute of Technology, Kanpur	August 26, 2022	Dr. B.K. Sharma and Mr. Avnish Sharma (As Participant)
11.	Emerging Domains of Cybersecurity and Cyber Threats	AICTE. New Delhi	July 16, 2022	Mr. Anand Prakash Srivastava (As Participant)
12.	Multivated Data Analysis for Research & Publication	Nalanda E Consortium	May 31, 2022	Dr. B K Sharma, Avnish Sharma & Mr. Nitin Kumar Sharma (As Participant)
13.	Transformation of textiles: cultural heritage to technology	ONLINE	April 22, 2022	Shweta Saxena (As Speaker)
14.	Citi–Cdra Golden Jubilee Celebrations “Kapas Ki Adhik Upaj, Shudh Upaj	Vigyan Bhawan, New Delhi	April 12, 2022	Vivek Agarwal & Shweta Saxena (As Participant)
15.	Driving Sustainability in Apparel & Textile Industry	ONLINE	April 7, 2022	Shweta Saxena (As Panel Expert)

## **ADDITIONAL SERVICES TO NITRA MEMBERS**

NITRA has been providing laudable services to member units since its inception in 1974. Besides offering services to meet their ever changing needs, it also offers substantial benefit package to member units to strengthen the mutual relationship. Following is a spectrum of additional services provided to individual member units:

### **1. Centre for Academic Partnership Scheme (CAPS)**

In a bid to diversify our activities and to intensify interaction with academic institutions and to augment techno -education base of the country as a whole, NITRA offers library & information service to the students, faculty and researchers of various colleges and institutions through participation in “Centre for Academic Partnership Scheme (CAPS)”. Institutions interested to avail this unique service may obtain membership at a nominal admission fee of Rs.20,000/- only. Apart from this, a nominal sum of Rs.500/ - per year will be charged to the individual user to issue his/her library card. For further details please contact the Asstt. Librarian.

### **2. Concessional Enrolment Fee in Workshops/ Seminars/ Conferences/ Training Programmes etc.**

The enrolment fee for participating in Training Programmes/Workshops/Seminars/ Conferences conducted by NITRA is much less for member units as compared to non-member units.

### **3. Discount on Testing Charges**

Testing charges for NITRA's member units in various testing labs are 30% (for Ordinary members) and 10% (for Associate members) discounted as compared to non-member units.

### **4. Discount on Publications**

10% discount is offered on the purchase of NITRA publications to its member units.

### **5. Free Library Service**

Member units can reap rich harvest by consulting the vast and well stocked NITRA library, services during any working day.

## JOURNALS SUBSCRIBED BY NITRA LIBRARY

S. No.	Name of Journal	Frequency
1.	AATCC Review	Monthly
2.	Asian Dyer	Monthly
3.	Asian Textile Journal	Monthly
4.	Asian Technical Textile Journal	Quarterly
5.	Apparel Online	Fortnightly
6.	Colourage	Monthly
7.	Digit	Monthly
8.	Competition Success Review	Monthly
9.	IETE Journal of Research	Bimonthly
10.	India Today (English)	Weekly
11.	Indian Textile Journal	Monthly
12.	Journal of the Institution of Engineers (India): Section B	Bimonthly
13.	Journal of Textile Institute	Bi-monthly
14.	Textile Progress	Quarterly
15.	The Textile Magazine	Bi-monthly
16.	Textiles Magazine	Quarterly

**JOURNALS RECEIVED ON COMPLIMENTARY BASIS**

<b>S.No.</b>	<b>Name of Journal</b>	<b>Frequency</b>
1.	Apparel Views	Monthly
2.	Textile Times	Monthly

**PLACEMENT OF STUDENTS OF NITRA TECHNICAL CAMPUS  
(As on 31.03.2023)**

**Branch : Textile Technology**

<b>S.No.</b>	<b>Student Name</b>	<b>Name of Company</b>
<u>2021-22</u>		
	None	
<u>2022-23</u>		
1.	Manjusha Verma	Shahi Exports
2.	Anchal Pundir	Shahi Exports
3.	Ritika Kumari	Shahi Exports
4.	Sandeep Kumar	Weave Tex Overseas
5.	Sneha Tiwari	Avanti Overseas
6.	Nidhi Tiwari	Avanti Overseas
7.	Mahima Gaur	Avanti Overseas
8.	Ayush Pandey	Vardhman Textiles Ltd.
9.	Md. Danish Khan	Vardhman Textiles Ltd.
10.	Anushka Sahu	RSWM
11.	Ananya Singh	RSWM
12.	Nikita Agrahari	RSWM
13.	Dipa Sarkar	RSWM
14.	Sansriti Singh	RSWM
15.	Himanshu Pandey	Cedaar Textiles Ltd.
16.	Shelly Sirohi	Cedaar Textiles Ltd.
17.	Nigam Kadiyan	Cedaar Textiles Ltd.
18.	Amish Dubey	Cedaar Textiles Ltd.
19.	Anshul Sharma	Cedaar Textiles Ltd.
20.	Anil Kumar Yadav	Cedaar Textiles Ltd.
21.	Shivangi Dixit	Cedaar Textiles Ltd.
22.	Anurag Chhatpurya	Cedaar Textiles Ltd.
23.	Dipesh Kumar Jha	Super House
24.	Ayush Dubey	Super House
25.	Fiza Siddharth	Super House

<b>S.No.</b>	<b>Student Name</b>	<b>Name of Company</b>
26.	Gopal Shah	Arham Spinning Mills, Bhiwadi
27.	Tarun Kumar	Arham Spinning Mills, Bhiwadi
28.	Vaish Khan	Arham Spinning Mills, Bhiwadi

**Branch : Computer Science & Engineering**

<b>S.No.</b>	<b>Student Name</b>	<b>Name of Company</b>
<u>2021-22</u>		
1	Ashish Tripathi	Wipro
2	Soni Kumari	Wipro
3	Akash Bind	Infosys
4	Janki Sharan Pandey	Infosys
5	Vikas Kumar Mishra	The Unified Cloud Pvt. Ltd.
<u>2022-23</u>		
1.	Amrit Tyagi	Innobit Systems Pvt. Ltd.
2.	Ankit Verma	Innobit Systems Pvt. Ltd.
3.	Anshika Mishra	Innobit Systems Pvt. Ltd.
4.	Rahul Gupta	Innobit Systems Pvt. Ltd.
5.	Vanshika Tyagi	Innobit Systems Pvt. Ltd.
6.	Vranda Kansal	Innobit Systems Pvt. Ltd.
7.	Shivkant Gupta	Innobit Systems Pvt. Ltd.
8.	Palak Chaturvedi	Innobit Systems Pvt. Ltd.
9.	Prashant Kumar Soni	ANR Software Private Ltd.
10.	Ajeet Kushawaha	ANR Software Private Ltd.
11.	Muskan Singh	ANR Software Private Ltd.
12.	Swarnim Dipankar	Abhiwan Technology Pvt. Ltd.
13.	Amitesh Kumar	Abhiwan Technology Pvt. Ltd.
14.	Aryan Sharma	Abhiwan Technology Pvt. Ltd.
15.	Yash Raj	Hanu Software Solutions
16.	Vipin Rajput	Chetu India Pvt. Ltd.
17.	Ahsan Alam	Chetu India Pvt. Ltd.
18.	Lokesh Pal	Chetu India Pvt. Ltd.

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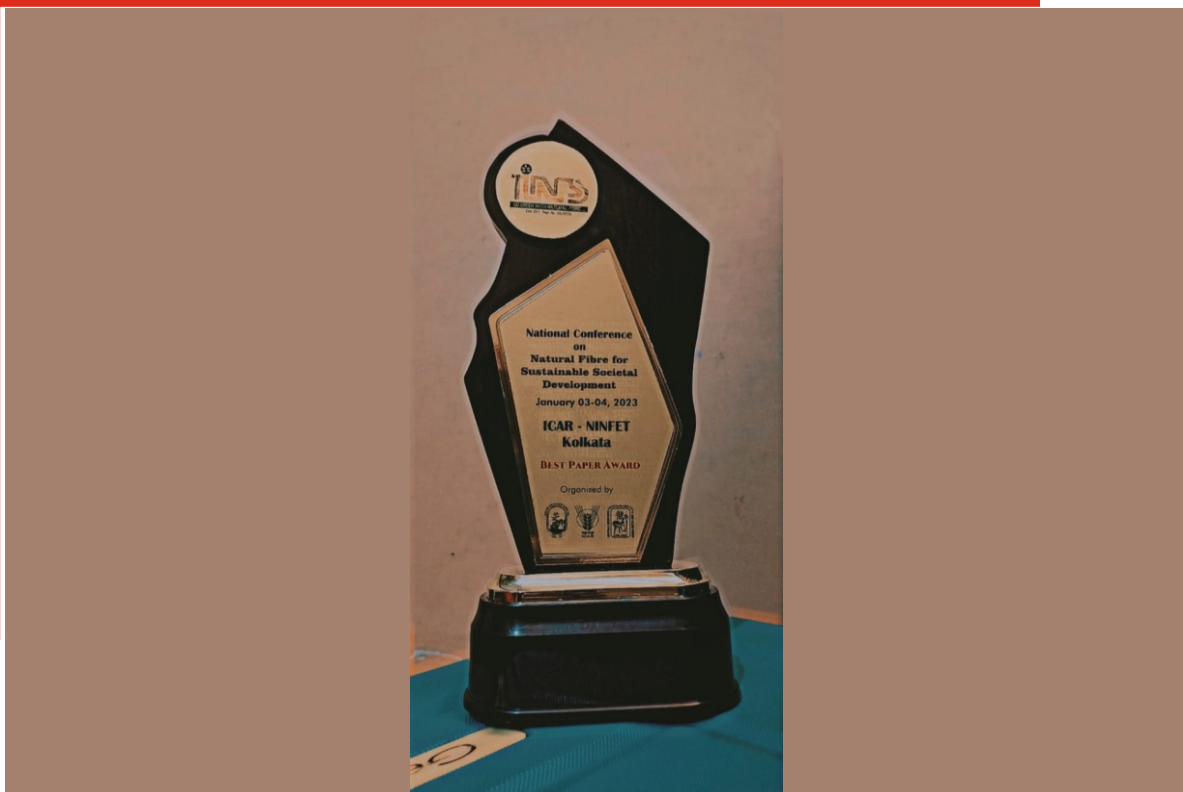
<b>S.No.</b>	<b>Student Name</b>	<b>Name of Company</b>
19.	Abhinash Kumar Maurya	Chetu India Pvt. Ltd.
20.	Prabhat Mani Srivastava	OEPP Innovations Pvt. Ltd.
21.	Piyush Kumar	MB Softech Consultant
22.	Priyanshu Arya	Matrix Infotech Solution
23.	Nadimuddin	Symbiosys Technologies
24.	Shivam Tiwari	Dirac ERP Solutions
25.	Rishabh Dev Singh	Dirac ERP Solutions

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# NITRA Receives CII Industrial Innovation Awards 2022



A moment of great pride for NITRA: NITRA Receives CII Industrial Innovation Award 2022



A moment of great pride for NITRA: NITRA Receives Best Paper Award at National Conference on Natural Fibre for Sustainable Societal Development organized by ICAR & NINFET at Kolkata, West Bengal



Dr. Arindam Basu, Director General, NITRA addresses at the Global Investors Summit in Lucknow, Uttar Pradesh



At the inaugural ceremony of 60th Joint Technological Conference jointly organized by ATIRA, BTRA, SITRA and NITRA at SITRA, Coimbatore during 11-12 November, 2022



**India's glorious 75th Independence Day being celebrated at NITRA  
NITRA on his visit to NITRA Campus, Ghaziabad.**



**Dr. Arindam Basu, Director General, explains a few technical points to Sh. Rajeev Saxena, IRSS,  
Joint Secretary, MoT while taking round at NITRA Pilot Plant for Spinning**



**Sh. Sandeep Hora, (extreme left), Vice Chairman, NITRA, Dr. Arindam Basu, Director General, NITRA and Dr. M.S.Parmar, Director, NITRA with a foreign technocrat at NITRA pavilion in Technotex 2023, Mumbai**



**Dr. Mahadev Datta (centre), Dy. Director, National Jute Board, Kolkata being explained a few points by NITRA scientists during his visit to NITRA Campus**

**AUDITOR'S REPORT**  
**&**  
**BALANCE SHEET**

**B.K. KAPUR & COMPANY**  
**CHARTERED ACCOUNTANTS**

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17, NAVYUG MARKET, GHAZIABAD-201001  
PHONE: 0120-2790947, 2790951

**AUDITOR'S REPORT**

1. We have audited the attached Balance Sheet of NORTHERN INDIA TEXTILE RESEARCH ASSOCIATION, Ghaziabad as at 31<sup>st</sup> March, 2023 and Income and Expenditure Account for the year ending 31<sup>st</sup> March, 2023 annexed thereto. These financial statements are the responsibility of the Association's Management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards required that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. We report that :
  - a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
  - b) The Balance Sheet and Income & Expenditure A/c referred to in this report are in agreement with the books of Account.
  - c) In our opinion and to the best of our information and according to the explanation given to us, the account read with accounting policies and notes on accounts give a true and correct
    - i. In case of Balance Sheet the state of affairs of the named Association as at 31<sup>st</sup> March, 2023 and
    - ii. In the case of Income & Expenditure A/c of the Excess of Income over the expenditure for the Accounting year ended on that date.

**For B.K. KAPUR & CO.**  
**Chartered Accountants**  
**Firm Registration No. 000852C**  
**Sd/-**  
**(C.A. M.S. KAPUR)**  
**(PARTNER)**  
**Membership No. 074615**  
**UDIN No. 23074615BGVLJD9953**

**Place: Ghaziabad**  
**Date : 19<sup>th</sup> August 2023**

**NORTHERN INDIA TEXTILE RESEARCH ASSOCIATION, GHAZIABAD**

**SOURCES OF FUNDS AND MANNER OF EMPLOYMENT AS AT 31<sup>ST</sup> MARCH 2023**

*(Amount in Rs.)*

<b>Sources of Funds</b>	<b>SCH. No.</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
Capital Funds:			
i) Corpus	1	84,17,219	83,82,219
ii) Assets created out of Grants	2	52,24,60,626	52,24,54,831
Reserves & Surplus	3	1,11,91,866	42,07,335
Depreciation Fund	4	10,98,68,081	10,69,90,738
R & D & General Reserve	5	7,80,61,589	6,80,61,589
Current Liabilities	7	2,13,97,336	1,93,46,022
<b>Total :</b>		<b>75,13,96,717</b>	<b>72,94,42,734</b>
<b>Manner of Employment</b>			
Grant Receivable's	6	1,88,89,471	4,08,56,967
Fixed Assets	8	59,49,81,273	59,38,13,617
Current Assets, Loans & Advances	9	13,75,25,973	9,47,72,150
<b>Total:</b>		<b>75,13,96,717</b>	<b>72,94,42,734</b>

**Significant accounting policies & notes to the accounts – Schedule-16.**

Sd/-  
**CHAIRMAN**  
Governing Council

Sd/-  
**CHAIRMAN**  
Finance & Adm  
Committee

Sd/-  
**DIRECTOR**  
GENERAL

Sd/-  
**DY. MANAGER**  
ACCOUNTS

Subject to our report of even date.

For **B.K.KAPUR & CO.**

**Chartered Accountants**

**Firm Registration No. 000852C**

Sd/-  
**(C.A. M.S. KAPUR)**  
**(PARTNER**

Membership No. 074615

**UDIN No. - 23074615BGVLJD9953**

Place : GHAZIABAD

Date : 19<sup>th</sup> August 2023

**STATEMENT OF INCOME AND EXPENDITURE ACCOUNT  
FOR THE YEAR ENDING 31<sup>ST</sup> MARCH, 2023**

(Amount in Rs.)

<b>INCOME GENERATION</b>	<b>SCH. No.</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
Grant-in-Aid to meet Recurring Expenditure (Non Plan)		2,00,00,000	2,00,00,000
Industry Contribution (Testing, Training, Inspection, Consultancy, Membership Subscription) and Educational services	10	7,49,40,896	6,60,71,838
Other Income	11	87,03,564	59,00,455
Grant-in-Aid to meet Expenditure on Projects	13	54,98,181	98,74,396
Grant-in-Aid to meet Expenditure at Powerloom Service Centres	14	1,35,80,930	1,30,34,000
<b>Total :</b>		<b>12,27,23,571</b>	<b>11,48,80,689</b>
<b><u>UTILISATION</u></b>			
Expenditure of Establishment	12	5,57,71,722	5,18,12,079
Expenditure on Projects	13	54,98,181	98,82,695
Expenditure on Powerloom Service Centres	14	1,53,14,788	1,44,59,801
Expenditure on General Administration	15	2,62,77,006	1,88,09,548
Transfer to Depreciation Fund		28,77,343	29,33,799
<b>Total :</b>		<b>10,57,39,040</b>	<b>9,78,97,922</b>
Balance available for Appropriation		1,69,84,531	1,69,82,767
Transfer to R&D Reserve		1,00,00,000	1,69,00,000
Transfer to General Reserve		69,00,000	-
Surplus transferred to Balance Sheet		84,531	82,767

Significant accounting policies & notes to the accounts – Schedule-16.

Sd/-  
**CHAIRMAN**  
Governing Council

Sd/-  
**CHAIRMAN**  
Finance & Adm  
Committee

Sd/-  
**DIRECTOR**  
**GENERAL**

Sd/-  
**DY. MANAGER**  
**ACCOUNTS**

Subject to our report of even date

For **B.K.KAPUR & CO.**  
**Chartered Accountants**

**Firm Registration No. 000852C**

Sd/-  
**(C.A. M.S. KAPUR)**  
**(PARTNER)**

Membership No. 074615

**UDIN No. - 23074615BGVLJD9953**

Place : GHAZIABAD

Date : 19<sup>th</sup> August 2023

**SCHEDULE – 1***(Amount in Rs.)*

<b>CAPITAL FUNDS</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
<b>1. Capital Corpus</b>		
a) Admission Fees (Members) Balance at the beginning	25,66,779	25,31,779
Receipts during the year	35,000	35,000
<b>Sub Total:</b>	<b>26,01,779</b>	<b>25,66,779</b>
b) Capital Contribution Balance at the beginning	34,13,530	34,13,530
Receipts during the year	-	-
<b>Sub Total :</b>	<b>34,13,530</b>	<b>34,13,530</b>
c) Donations Balance at the beginning	24,01,910	24,01,910
Receipts during the year	-	-
<b>Sub Total :</b>	<b>24,01,910</b>	<b>24,01,910</b>
<b>Total :</b>	<b>84,17,219</b>	<b>83,82,219</b>

## SCHEDULE – 2

(Amount in Rs.)

<b>CAPITAL FUND - ASSETS CREATED OUT OF GRANTS RECEIVED FROM GOVERNMENT AGENCIES</b>	<b>Balance As on 31.3.2022</b>	<b>Additions / Write-o ff during the year</b>	<b>Balance As on 31.3.2023</b>
<u>Capital Reserve: I – (Non Plan)</u>	32,76,379	-	32,76,379
<b>Sub Total :</b>	<b>32,76,379</b>	<b>-</b>	<b>32,76,379</b>
<u>Capital Reserve : II</u> (Sponsored Projects) - MOT	7,85,21,407	(11,000)	7,85,10,407
<b>Sub Total :</b>	<b>7,85,21,407</b>	<b>(11,000)</b>	<b>7,85,10,407</b>
<u>Capital Reserve : III</u> (Other Agencies) – National Jute Board DST	38,60,698	-	38,60,698
<b>Sub Total :</b>	<b>38,60,698</b>	<b>-</b>	<b>38,60,698</b>
<u>Capital Reserve : IV</u> (Power Loom Service Centres)	78,50,034	-	78,50,034
<b>Sub Total :</b>	<b>78,50,034</b>	<b>-</b>	<b>78,50,034</b>
<u>Capital Reserve : V</u> <u>(PLSC's income)</u>	5,73,875	57,735	6,31,610
<b>Sub Total :</b>	<b>5,73,875</b>	<b>57,735</b>	<b>6,31,610</b>
<u>Capital Reserve : VI</u> Government of Rajasthan for Bhilwara Centre	3,51,052	-	3,51,052
<b>Sub Total :</b>	<b>3,51,052</b>	<b>-</b>	<b>3,51,052</b>

(Amount in Rs.)

<b>CAPITAL FUND - ASSETS CREATED OUT OF GRANTS RECEIVED FROM GOVERNMENT AGENCIES</b>	<b>Balance As on 31.3.2022</b>	<b>Additions / write-off during the year</b>	<b>Balance As on 31.3.2023</b>
<b><u>Capital Reserve : VII</u></b>			
Testing Lab Bhilwara, Panipat, Meerut & NITRA, Ghaziabad.	1,71,60,660	-	1,71,60,660
<b>Sub Total :</b>	<b>1,71,60,660</b>	-	<b>1,71,60,660</b>
<b><u>Capital Reserve : VIII</u></b>			
(CAD Centres at Bhilwara, Panipat & NITRA Ghaziabad)	72,26,565	-	72,26,565
<b>Sub Total :</b>	<b>72,26,565</b>	-	<b>72,26,565</b>
<b><u>Capital Reserve : IX</u></b>			
Modernisation of PLSC's	1,51,09,628	-	1,51,09,628
<b>Sub Total :</b>	<b>1,51,09,628</b>	-	<b>1,51,09,628</b>
<b><u>Capital Reserve : X - (CAD Tanda)</u></b>	4,13,482	-	4,13,482
<b>Sub Total :</b>	<b>4,13,482</b>	-	<b>4,13,482</b>
<b><u>Capital Reserve ; XI - (COE Protech)</u></b>	15,59,39,236	-	15,59,39,236
<b>Sub Total :</b>	<b>15,59,39,236</b>	-	<b>15,59,39,236</b>
<b><u>Capital Reserve ; XII - (ASIDE) (U.P. Govt. &amp; Nitra)</u></b>	8,43,87,200	-	8,43,87,200
<b><u>Capital Reserve ; XIII - (ISDS)</u></b>	11,87,56,138	(40,940)	11,87,15,198
<b><u>Capital Reserve ; XIV - FIC (COE)</u></b>	2,90,28,477	-	2,90,28,477
<b>GRAND TOTAL:</b>	<b>52,24,54,831</b>	57,735 (51,940)	<b>52,24,60,626</b>
<b>Previous year</b>	<b>51,22,39,517</b>	1,02,15,314	<b>52,24,54,831</b>

**SCHEDULE-3***(Amount in Rs.)*

<b>RESERVES AND SURPLUS</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
<b>(A) Surplus accumulated: Excess of Income over Expenditure</b>		
Balance at the beginning of Financial Year                      42,07,335		41,24,568
Add:- Transferred from Income & Expenditure                      84,531 during the year	42,91,866	82,767
<b>(B) <u>General Reserve</u></b>		
Balance at the beginning of Financial Year    -		
Add:- Transferred from Income & Expenditure                      69,00,000 during the year	69,00,000	-
<b>Total :</b>	<b>1,11,91,866</b>	<b>42,07,335</b>

**SCHEDULE – 4***(Amount in Rs.)*

<b>DEPRECIATION FUND</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
Opening Balance	10,69,90,738	10,40,87,199
Less:- Depreciation on Assets disposed off.	-	30,260
Depreciation for the year	28,77,343	29,33,799
<b>Total :</b>	<b>10,98,68,081</b>	<b>10,69,90,738</b>

**SCHEDULE – 5***(Amount in Rs.)*

<b>R &amp; D RESERVE</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
a) Opening Balance	6,80,61,589	5,11,61,589
Add :- Transfer from Income & Expenditure during the year	1,00,00,000	1,69,00,000
<b>Total :</b>	<b>7,80,61,589</b>	<b>6,80,61,589</b>

## SCHEDULE – 6

(Amount in Rs.)

S. No.	GRANTS PENDING UTILISATION / (Receivables)	Balance at the beginning	Receipts During the year	Adjustment / Amount write off	Utilised during the year		Balance carried forward
					Cap. Exp.	Rec. Exp.	
<b>I.</b>	<b>NON-PLAN (Ministry of Textiles)</b>						
	Non-plan (Ministry of Textiles)	-	2,00,00,000	-	-	2,00,00,000	-
	NON-PLAN Previous Year	-	2,00,00,000	-	-	2,00,00,000	-
<b>II.</b>	<b>Plan (Ministry of Textiles &amp; other Agencies)</b>						
1.	Designing a compressed air monitoring system optimize energy consumption in a textile mill.	(14,59,245)	15,33,000	(73,755)	-	-	-
2.	Development of specialty embroidery yarn for application in stretchable fabric like knitted fabrics	(8,64,000)	8,64,000	-	-	-	-
3.	Study to Enhance Indian Apparel Exports	(13,38,750)	13,38,750	-	-	-	-
4.	Development of Multi Layered Flame & Thermal Resistance Fabric for Fire Fighter Clothing	(13,85,444)	11,74,320	2,11,124	-	-	-
5.	Development of Protective Work Wear for Cement Porters	(14,67,819)	13,60,326	1,07,493	-	-	-
6.	Development of Fabric Smoothness Tester	(9,95,484)	-	-	-	-	(9,95,484)
7.	New approaches to reduce water consumption in textile wet processing	(25,41,720)	25,53,600	(11,880)	-	-	-
8.	Development of value added product from different fibres produced in Himalayan Region (Basic research)	(2,53,86,819)	2,22,32,000	31,54,819	-	-	-
9.	Development of Air cleaner home textiles to reduce indoor air pollution	(12,41,469)	12,93,600	(52,131)	-	-	-
10.	Common Effluent Treatment Plant (CETP) Azrakpur, Bhuj	(22,94,111)	14,60,000	8,34,111	-	-	-
11.	Development of regenerated cellulosic fibre Indian Bamboo	(37,53,925)	-	-	-	19,93,267	(57,47,192)

S. No.	GRANTS PENDING UTILISATION / (Receivables)	Balance at the beginning	Receipts During the year	Adjustment / Amount write off	Utilised during the year		Balance carried forward
					Cap. Exp.	Rec. Exp.	
12.	Development of Jute composite for automotive acoustic insulation & other uses	12,79,240	16,86,300	-	-	17,89,531	11,76,009
13.	Development of a molten metal splash resistance unique Jute blended workwear for steel foundry workers	10,42,770	-	-	-	17,15,383	(6,72,613)
	<b>Sub Total:</b>	<b>(4,04,06,776)</b>	<b>3,54,95,896</b>	<b>41,69,781</b>	<b>-</b>	<b>54,98,181</b>	<b>(62,39,280)</b>
	<b>Previous Year:</b>	<b>(3,35,43,469)</b>	<b>66,36,500</b>	<b>-</b>	<b>37,68,339</b>	<b>97,3,1,468</b>	<b>(4,04,06,776)</b>
<b>III.</b>	<b>POWER LOOM SERVICE CENTRES</b>						
1.	TANDA	-	-	90,400		12,90,400	12,00,000
2.	MEERUT	-	-	2,24,165		19,24,165	17,00,000
3.	LUDHIANA	-	-	82,900		15,82,900	15,00,000
4.	KANPUR	-	-	3,98,235		20,98,235	17,00,000
5.	GORAKHPUR	-	-	-		12,00,000	12,00,000
6.	PANIPAT	-	-	60,000		17,60,000	17,00,000
7.	BHILWARA	-	-	34,000		17,34,000	17,00,000
8.	VARANASI	(4,50,191)	-	4,91,230		19,91,230	18,50,191
	<b>Sub Total:</b>	<b>(4,50,191)</b>	<b>-</b>	<b>13,80,930</b>		<b>1,35,80,930</b>	<b>(1,26,50,191)</b>
	<b>Previous Year:</b>	<b>-</b>	<b>1,17,49,809</b>	<b>8,34,000</b>	<b>-</b>	<b>1,30,34,000</b>	<b>(4,50,191)</b>
	<b>Grand Total:</b>	<b>(4,08,56,967)</b>	<b>5,54,95,896</b>	<b>55,50,711</b>	<b>-</b>	<b>3,90,79,111</b>	<b>(1,88,89,471)</b>
	<b>Previous Year:</b>	<b>(3,24,89,863)</b>	<b>3,83,86,309</b>	<b>8,34,000 (9,10,678)</b>	<b>37,68,339</b>	<b>4,29,08,396</b>	<b>(4,08,56,967)</b>

**SCHEDULE – 7***(Amount in Rs.)*

<b>S.NO.</b>	<b>CURRENT LIABILITIES</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
1.	Sundry Creditors	26,09,775	21,79,567
2.	Outstanding Liabilities	35,26,605	38,35,167
3.	Security, Deposits & Advances received	1,52,60,956	1,33,31,288
<b>Total :</b>		<b>2,13,97,336</b>	<b>1,93,46,022</b>

**SCHEDULE – 8**

(Amount in Rs.)

S. No.	FIXED ASSETS	Total cost as on 31.3.2022	Additions / writeoff during the Year	Total cost as on 31.3.2023
1.	Building*	2,62,99,861	-	2,62,99,861
2.	Air conditioning Plant & Room Air-Conditioners	4,02,015	-	4,02,015
3.	Furniture A/c	19,47,098	6,44,762	25,91,860
4.	Fixture & Fittings	15,13,749	-	15,13,749
5.	Office Equipments	87,19,574	5,01,989 (8,200)	92,13,363
6.	Cooler (Room & Water)	6,46,384	-	6,46,384
7.	Vehicles	20,03,390	-	20,03,390
8.	Fire Extinguisher	1,36,288	-	1,36,288
9.	Intercom, Telephones	2,84,542	-	2,84,542
	<b>Machinery &amp; Equipments:</b>			
	A. In House R&D	2,49,24,215	23,310	2,49,47,525
	B. Sponsored Projects**	9,02,59,517	(11,000)	9,02,48,517
	C. CAD & Powerloom Service Centres**	3,13,98,248	57,735@	3,14,55,983
	D. Testing Lab, Panipat Bhilwara & Meerut**	1,23,89,045	-	1,23,89,045
	E. Testing Lab, NITRA, Ghaziabad**	47,78,640	-	47,78,640
	F. Centre of Excellence Protech **	15,59,39,236	-	15,59,39,236
	G. Focus Incubation ** Centre (CoE)	2,90,28,477	-	2,90,28,477
10.	ASIDE Govt. share **	5,77,20,000	-	5,77,20,000
	NITRA share	2,66,67,200	-	2,66,67,200
11.	ISDS Project **	11,87,56,138	(40,940)	11,87,15,198
	<b>Grand Total :</b>	<b>59,38,13,617</b>	<b>12,27,796 (60,140)</b>	<b>59,49,81,273</b>
	<b>Previous Year:</b>	<b>58,26,49,781</b>	<b>1,11,63,836</b>	<b>59,38,13,617</b>

**NOTE:**

\* The Building stands on leasehold land measuring 49.80 Acres from GDA for 90 years from 25.3.1980, the premium amounting to Rs. 47.15 lakhs was paid by the U.P.Government.

\*\* No depreciation provided on items acquired in Powerloom Service Centres, CAD, Sponsored Projects, Testing Labs, COE, ASIDE & ISDS to the extent of the Grant given by the sponsor.

@ Being amount spent out of PLSC Income.

**SCHEDULE – 9***(Amount in Rs.)*

<b>S.No.</b>	<b>CURRENT ASSETS &amp; LOANS AND ADVANCES</b>	<b>As at 31.3.2023</b>	<b>As at 31.3.2022</b>
1.	Sundry Debtors	51,34,690	33,62,858
2.	Advance	10,39,146	2,29,652
3.	Sundry Deposits	19,00,438	19,00,707
4.	Prepaid Expenses	6,21,113	8,11,638
5. a)	Cash in Hand	1,35,529	1,63,479
b)	Balance with Banks	88,10,354	1,15,47,330
6.	Other Receivables	2,07,71,142	1,65,06,028
7.	FDR with Banks (It includes earmarked deposits)	9,69,66,867	5,86,35,354
8.	Accrued Income	21,46,694	16,15,104
<b>Total :</b>		<b>13,75,25,973</b>	<b>9,47,72,150</b>

**SCHEDULE – 10***(Amount in Rs.)*

<b>S.No.</b>	<b>INDUSTRY CONTRIBUTION &amp; EDUCATIONAL</b>	<b>Current Year</b>	<b>Previous Year</b>
<b>1.</b>	<b>Training &amp; Consultancy</b>		
a)	Other Educational / 55,33,817 Training Prog.		
b)	Inspection & Other Services 88,93,000		
c)	Other consultancy 32,28,193		
d)	NTC 3,36,11,052	5,12,66,062	4,29,21,938
<b>2.</b>	<b>Sample Testing Fees</b> (Include overseas testing Rs. 10,59,699/-)	2,12,57,534	2,15,48,950
<b>3.</b>	<b>Income Testing Lab Bhilwara, Panipat &amp; Meerut</b>	15,34,800	7,80,950
<b>4.</b>	<b>Membership Subscription</b>	8,82,500	8,20,000
<b>Total :</b>		<b>7,49,40,896</b>	<b>6,60,71,838</b>

**SCHEDULE – 11***(Amount in Rs.)*

<b>S.No.</b>	<b>OTHER INCOMES</b>	<b>Current Year</b>	<b>Previous Year</b>
1.	Overhead Recovery on Projects	28,11,247	25,90,446
2.	NITRA Publications	27,645	1,06,652
3.	Income from Investments	40,16,420	23,03,065
4.	Waste field cotton & Yarn & Income from land utilization	10,65,704	7,92,967
5.	Application Forms	82,000	48,000
6.	Miscellaneous Income	95,149	59,325
7.	Balances write back	6,05,399	-
<b>Total :</b>		<b>87,03,564</b>	<b>59,00,455</b>

**SCHEDULE – 12***(Amount in Rs.)*

<b>EXPENDITURE ON ESTABLISHMENT</b>	<b>Current Year</b>	<b>Previous Year</b>
NITRA	6,01,18,239	5,83,39,622
<b>Sub Total :</b>	<b>6,01,18,239</b>	<b>5,83,39,622</b>
<b>Less :</b> Transferred to Expenditure on Projects	43,46,517	65,27,543
<b>Total:</b>	<b>5,57,71,722</b>	<b>5,18,12,079</b>

**SCHEDULE – 13**

**SPONSORED PROJECTS EXPENDITURE AND GRANT-IN-AID  
TO MEET THE EXPENDITURE**

*(Amount Rs.)*

Sl. No.	Name of the Sponsored Project	2022-2023		2021-2022	
		Recurring Expenditure	Amount Transferred from Grant-in-Aid A/c to meet sponsored Project Exp.	Recurring Expenditure	Amount Transferred from Grant-in-Aid A/c to meet sponsored Project Exp.
1.	Development of value added product from different fibres produced in Himalayan Region (Basic research)	-	-	41,85,947	41,85,947
2.	Common Effluent Treatment Plant Azrakpur, Bhuj	-	-	26,23,457	26,23,457
3.	Swachh Bharat Abhiyan	-	-	1,51,227	1,42,928
4.	Development of regenerated celluloses fibre from Indian Bamboo (Dept. of Agriculture National Bamboo Mission)	19,93,267	19,93,267	22,57,574	22,57,574
5.	Development of Jute composite for automotive acoustic insulation & other uses	17,89,531	17,89,531	4,07,060	4,07,060
6.	Development of a molten metal splash resistance unique Jute blended workwear for steel foundry workers	17,15,383	17,15,383	2,57,430	2,57,430
	<b>Total :</b>	<b>54,98,181</b>	<b>54,98,181</b>	<b>98,82,695</b>	<b>98,74,396</b>

**SCHEDULE-14**

**POWERLOOM SERVICE CENTRES EXPENDITURE AND GRANT-IN-AID  
TO MEET THE EXPENDITURE**

*(Amount in Rs.)*

S.No	Place of the Centre	2022-2023		2021-2022	
		Recurring Expenditure	Amount Transferred from Grant-in-Aid A/c & income to meet PLSC exps.	Recurring Expenditure	Amount Transferred from Grant-in-Aid A/c to meet PLSC exps.
1.	TANDA	13,97,609	12,90,400	14,01,091	13,17,050
2.	MEERUT	23,65,882	19,24,165	18,24,648	17,10,000
3.	KANPUR	21,10,804	20,98,235	20,35,486	19,04,700
4.	LUDHIANA	16,73,816	15,82,900	15,25,294	15,07,200
5.	GORAKHPUR	13,02,927	12,00,000	12,76,440	12,28,500
6.	PANIPAT	19,26,816	17,60,000	22,80,312	17,66,000
7.	BHILWARA	24,82,678	17,34,000	21,73,589	17,09,600
8.	VARANASI	20,54,256	19,91,230	19,42,941	18,90,950
<b>TOTAL :</b>		<b>1,53,14,788</b>	<b>1,35,80,930 *</b>	<b>1,44,59,801</b>	<b>1,30,34,000</b>

\*Includes Rs. 13,80,930/- in respect of PLSC Income.

**SCHEDULE – 15***(Amount in Rs.)*

<b>EXPENDITURE ON GENERAL ADMINISTRATION</b>	<b>Current Year</b>	<b>Previous Year</b>
Electricity Charges & DG Running	33,63,973	30,06,680
Traveling & Conveyance	11,00,604	6,49,021
Building Maintenance & Housekeeping	9,67,097	8,13,075
Repairs Plant & Machinery, Computer, Building & others	22,67,575	20,43,063
Legal & Professional Exps.	8,05,840	8,41,039
NABL Callibration Exps.	7,70,303	7,18,539
Security Arrangement	19,25,098	17,69,897
Books, Periodicals & Publication	3,35,331	1,88,195
Advertisement exps	11,25,456	9,92,268
Insurance	4,05,134	3,94,867
Cultivation / Horticulture Exps.	8,01,379	7,20,512
Postage & Telephone Exps.	7,10,608	5,99,939
Car Running & Maintenance	3,91,931	2,65,624
Printing & Stationery	7,91,959	7,86,674
Chemicals, Glassware and Spares Stores Consumed	11,90,558	8,16,573
Training & Seminar Exps.	95,888	85,787
Meeting Exps.	2,94,863	1,42,224
In House Project Exps.	50,89,533*	7,31,927
Amount Write Off.	85,500	9,31,770
Audit fees	80,000	80,000
Testing lab exps., - Panipat, Bhilwara & Meerut	86,342	1,24,186
Previous Year Exps.	1,23,716	14,210
Other Expenses	11,60,178	8,15,263
Rates & Taxes	23,08,140	12,78,215
<b>Total :</b>	<b>2,62,77,006</b>	<b>1,88,09,548</b>

\*Includes unrecoverable grants write off under sponsored projects Rs. 41,69,781/- during the year.

## **SCHEDULE – 16**

### **Significant Accounting Policies and Notes to the Accounts**

**A. BASIS OF ACCOUNTING**

The Financial Statements are prepared on Historical cost convention and on Mercantile Accounting system.

**B. FIXED ASSET**

Depreciated Fixed Assets are stated at cost, which include expenditure incurred on acquisition of assets concerned such as freight, duties, Taxes and incidental expenses up to the installation of assets. Assets acquired in Power Loom Service Centre's, CAD, Sponsored Projects and Testing Labs are stated at Revalued amount.

**C. DEPRECIATION**

During the year the Society has charged depreciation on fixed assets on Written down Value method as per the rates & manner prescribed in the Income Tax Act 1961.

**D. INVESTMENT**

Investments are stated at cost.

**E. FOREIGN CURRENCY TRANSACTION**

Transactions in Foreign Currency are accounted at the exchange rate prevailing on the date of the transaction.

**F. REVENUE RECOGNITION**

(a) All incomes are accounted for on accrual basis except for membership subscription which has taken on receipt basis.

(b) Government grants are accounted on the basis of sanction letter from the government department.

### **NOTES ON ACCOUNTS:**

1. Figures in Balance Sheet are rounded off to the nearest rupee.

Previous year figures have been regrouped or rearranged wherever considered necessary to make them comparable with those of Current year.

### **AUDITOR'S REMUNERATION**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
Audit Fees	80,000	80,000.00