

Himalayan Region - Natural Long Fibres

(Under MoT, Govt sponsored project "Development of Value Added Products from different fibres produced in Himalayan Region")

**NITRA IS LOOKING FOR INDUSTRY PARTNERS FOR
TRANSFER OF TECHNOLOGY**

Objective is to assist industry in development of yarns, fabrics and final products of Natural Long Fibres

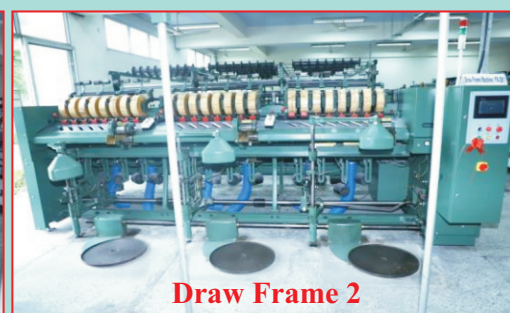
Facilities available:



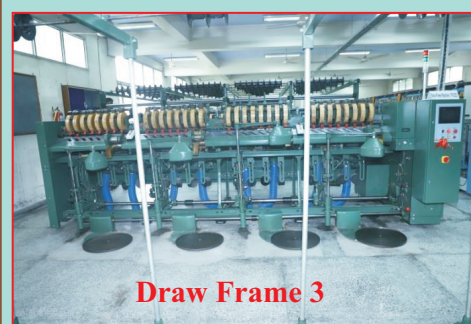
Hackling Machine



Draw Frame 1



Draw Frame 2



Draw Frame 3



Draw Frame 4



Draw Frame 5



Roving Frame



Ring Frame



Northern India Textile Research Association

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

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NITRA NEWS

...with industry always



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Editorial Structure

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FROM DIRECTOR GENERAL'S DESK



Dear Patrons,

While I am penning down this column, I have a strong belief in mind that all our esteemed patrons like you are living hale and hearty. We also hope that the signs of economic recovery which is quite evident today would continue for a long time and India's industrial activities will be further intensified in the days to come.

Friends, as usual this quarter has also been buzzed with activities both for NITRA and its academic wing NITRA Technical Campus. During the reported period NITRA organized a 2-day training program on Polyester Fabric and Yarn Manufacturing for a team of officials from Indian Oil Corporation Ltd. (IOCL). As a follow up I delivered a lecture on basics of polyester fibres at IOCL office, New Delhi for the senior officers.

Another important happening during this quarter was NITRA's participation in "Uttar Pradesh MSME Sammelan 2022-Transforming MSME's Competitiveness". How NITRA, with its technical expertise, can help MSMEs for becoming more competitive is being shared in this meet. The event was organized by Assocham in Lucknow. The program was inaugurated by Deputy Chief Minister of UP Shri Brajesh Pathak and valedictory address was delivered by Honourable Governor of UP Smt. Anandi Ben Patel.

As I move to NITRA's academic wing NITRA Technical Campus, I find it very delightful to state 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 before the completion of 4th year. Top notch textile and garment companies such as Aditya Birla Group, Vardhman Textiles, Nahar Industrial Enterprises, Shahi Exports, and many more are part of the institute's recruiters' bouquet. The management expresses its gratitude to all recruiting companies.

While I conclude, I do hope that you will be enjoying reading **NITRA News** as usual.

Regards,

Dr. Arindam Basu
Director General

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(Linked to Ministry of Textiles, Government of India)

Sector - 23, Raj Nagar, Ghaziabad - 201 002 (India)



R&D SPECTRUM

Presently, NITRA is working on five Government Sponsored and In-house projects.

Government Sponsored Projects - On-going:

- ☐ Development of regenerated cellulosic fibres from Indian bamboo
- ☐ Development of molten metal splash resistant unique jute blend work-wear for steel industry workers
- ☐ Development of Jute composite for automotive acoustic insulation and other uses

Recently Sanctioned Government Sponsored Project:

- ☐ Socio-economic development of SC/ST by providing training, technology and market to convert local resources to industrial products (submitted to DST, GoI)

In-house Project- On-going:

- ☐ Development of molten metal splash (E3&D3) fabric for foundry workers

Proposed Projects – Submitted to National Technical Textile Mission, Govt. of India

- ☐ Cellulose based indigenous high Clo value and low density surface modified natural fibre for developing thermal layers of extreme cold weather clothing
- ☐ Development of Bio degradable and Sustainable Disposable Sanitary Napkin
- ☐ Development of indigenous Basalt fibre for high performance applications
- ☐ Development of Crop cover, mulch, soil protection fabrics and other products using Sunnhemp and Banana Fibre

RESEARCH PAPERS PUBLISHED/PRESENTED

S. No.	Title	Author(s)	Publication/Place	Date
1	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	09 th –10 th April 2022
2	Recycling and Application of Textile & Agriculture Waste in different Products	M.S. Parmar	Webinar organized by Textile Association of India, Delhi	14 th May 2022

Placement Activities (B. Tech) at NITRA Technical Campus

S. No.	Recruiting Company	Branch	Student's Name
1.	Shahi Exports	TT	Manjusha Verma, Anchal Pundir and Ritika Kumari
2.	WeaveTex Overseas	TT	Sandeep Kumar
3.	Avanti Overseas	TT	Sneha Tiwari, Nidhi Tiwari and Mahima Gaur
4.	Wipro	CSE	Ashish Tripathi and Soni Kumari
5.	Infosys	CSE	Akash Bind and Janki Sharan Pandey
6.	The Unified Cloud Pvt. Ltd.	CSE	Vikas Kumar Mishra

New arrival in NITRA Library

Following new book titles added to NITRA Library during April – June, 2022

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) by N P Bali, Manish Goyal
5. A Text Book of Engineering Mathematics (Sem. IV) by N P Bali, Manish Goyal
6. Norms for Mechanical Processing (Weaving), published by BTRA

Recent Technology Transfer by NITRA

- ☐ ‘Flash resistance hood for Indian Navy’- Technology transferred to M/s Aero Garment.
- ☐ ‘Improved version of body protector for riots control’- Technology transferred to M/s. G. M. Trading and Applied Systems.
- ☐ ‘Coat combat disruptive’- Technology transferred to Kusumgar Corporates Pvt. Ltd. and Radnik Exports.
- ☐ ‘Reusable sanitary pads and diapers’- Technology transferred to Kaytent Industries.

NITRA Developments Already Commercialized Through Technology Transfer

- ☐ Technology of “Synthetic blood penetration tester” to Asian Test Equipments, Ghaziabad
- ☐ Technology of “Development of improved stab and impact resistant material for anti riots body protector” to Applied Systems Mumbai.
- ☐ Technology of “Work wear for Cement Porters” to M/s. Arvind Ltd., Ahmedabad
- ☐ Technology of developing “Multi Layered Flame & Thermal Resistance Fabric for Fire Fighter Clothing” to Arvind Ltd. and Aeronav Industrial Safety Appliances.
- ☐ Technology of “NITRA Electronic Drape meter” to Dinu Technologies, Coimbatore
- ☐ Technology of “NITRA’s F abric Smoothness Tester” to Multiflo Instruments Pvt. Ltd., Navi Mumbai.
- ☐ Technology to produce “Seamless low cost jute carry bags” to G. D. Industries, Kolkata
- ☐ Study material for “Fabric Defect Analysis” to Textile Sector Skill Council, New Delhi

further 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. The management expresses its gratitude to all the recruiting companies and wishes every professional success to its young and energetic students.

Natural Long Fibre Pilot Plant Now Operational at NITRA for Textile Industry



In line with present demand of sustainable, biodegradable natural fibres NITRA has set up the above. The main function of this pilot plant is to run wet

spinning system for long natural fibre. This system will help entrepreneurs in exploring potential in long fibers like flax, hemp, ramie, nettle etc. This wet spinning system consists of sophisticated machines such as hackling machine for individualization, short fibre removal and sliver formation, a series of 5 draw frames for parallelization and drafting, roving frame for drafting and twisting, ring frame for final yarn conversion. NITRA offers this set up to start up companies, existing companies for developing final products and market study. Also the existing Flax units can take help of NITRA for conversion of Flax fibre to Hackled sliver, as NITRA has excess capacity of Hackling machine, on chargeable basis.

Patents filed

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

Memorandum of Understanding (MoU)

1. Memorandum of Understanding (MOU) and Non-Disclosure Agreement 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.
2. Memorandum of Understanding with Central Pulp and Paper Research Institute, Saharanpur for joint research activities in pulp production & regenerated cellulosic fibre production.

CONSULTANCY CORNER

- ❖ Cloth Disruptive Poly Cotton (2 units), Jersey Woolen (1unit), T Shirt (3 units), Blanket (2 units), and Full Body Protector (2 units)
- ❖ Workload and Manpower Assessment Study in Dyeing & Processing Division (1 unit)
- ❖ Manpower Assessment in Weaving Division (1unit)
- ❖ Study on performance assessment of card using new card clothing development (1unit)
- ❖ Energy audit (6 units)

HRD FOCUS

Training Program/Workshop/Seminar Conducted by NITRA

Program Title: Application of Gray Scale
 Client : M/s Continental Surface Solutions India, Pune, Maharashtra
 Duration : 2 days
 Date : 16th and 17th June 2022
 No. of persons trained: 02
 Venue : NITRA, Ghaziabad

TESTING ZONE

During the period, total 1553 samples were tested in all the labs as per following table:

S. No.	Lab Name	No. of samples tested
1	Physical Quality Evaluation Lab	584
2	Chemical Quality Evaluation Lab	772
3	Heat & Flame/Microbiology Lab	
4	Polymer & Technical Textiles Lab	150
5	Eco Lab	29
6	Environment Lab	18

Total No of Fabric Defect Analysis under taken during the period: 01 no .

GLIMPSES

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.

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.

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

On 22nd 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 5th National Conclave on Standards for Technical Textiles.

It was organized by Bureau of Indian Standard's 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 Scientist Presents Research Paper in Fibre Society's Spring 2022 Conference in Belgium



It is a proud moment for NITRA that one of its scientists, Ms. Rupali, Senior Scientific Officer, 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 30th May to 1st 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.

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