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61st JTC – Joint Technological Conference

Carbon Fibre Precursor Line dedicated to the Nation

Bombay Textile Research Association **(BTRA)** hosted and organized **61st JTC – Joint Textile Conference** jointly with Ahmedabad Textile Industry's Research Association **(ATIRA),** Northern India Textile Research Association **(NITRA)** and South India Textile Research Association **(SITRA)** during 14th & 15th December, 2023 at BTRA Complex.

During the inaugural function, **Dr. T. V. Sreekumar,** Director, BTRA, welcomed the Chief Guest **Shri Manoj Singh Gaur,** Director, IIT, Jammu, Special Guests **Smt. Roop Rashi,** Textile Commissioner and **Shri Rajeev Saxena,** Joint Secretary, Ministry of Textiles, Govt. of India; and **Shri R. D. Udeshi,** President, Polyester Chain, Reliance Industries Limited, **Mr. Narendra M. Dalmia,** CEO / Director, Strata Geosystems (India) Pvt. Ltd.; **Dr. Sharad Saraf,** Chairman, Governing Council, BTRA; **Mr. Pragnesh Shah,** Director, ATIRA; **Dr. Prakash Vasudevan,** Director, SITRA; **Dr. Arindam Basu,** Director General, NITRA, Ghaziabad and felicitated with offering floral bouquet and the Memento. During his welcome address, Dr. T V. Sreekumar highlighted the importance of the event as a vehicle of communication to the industry about the latest developments made by four TRAs. Conference, on the day one 14-12-2023, inaugurated with the lightening of the lamp by the worthy hands of Chief Guest of the event **Shri Manoj Singh Gaur,** Director, IIT, Jammu and other dignitaries presented on the dais.



Smt. Roop Rashi, Textile Commissioner addressing the audience



The dignitaries on the dais present on the occasion

Mr. Narendra Dalmia, Deputy Chairman, Governing Council, BTRA highlighted the transformation of the TRAs into world-class institutes particularly in the niche area of the technical textiles and urged the industry to handshake the TRAs in order to participate into the growth of technical textiles.

Then **Dr. Sharad Sharad,** Chairman, Governing Council, BTRA in his Presidential address informed the gathering about the R&D efforts made by all the four TRAs.

During the address, **Shri Rajeev Saxena,** Joint Secretary, Ministry of Textiles, Govt. India highlighted the collaborative role of TRAs and industry for carrying out R&D in the new technological projects as these TRAs are more controlled by user industry as compared to IITs and insisted the TRAs to carry out more industry-oriented R&D work in the design & development of machines and as well as development of feasible technical textile products. He also informed the gathering the extension of NTTM upto year March 2026.

Smt. Roop Rashi, Textile Commissioner during her address shared the role being played by the Govt. of India for supporting industry and TRAs in view of market challenges, supply chain and ecosystem. She urged the industry to come forward with suggestions during such conference to overcome obstructions/ challenges faced by them in the textiles value chain. She also briefed on the policy initiatives and developmental projects taken by the union government of India to augment the growth of the textile trade and industry with special reference to technical textiles in India.

Shri R. D. Udeshi, President, Polyester Chain, Reliance Industries Limited in his Keynote address highlighted the role played by the Govt. of India, industry and TRAs during the corona pandemic and the fruitful outcome achieved by India thereafter to become a prominent force in the technical textiles field. He emphasized the role can be played by the industry with the help of TRAs to become self-sufficient in each sector of textile with special mentioned of textile used in defence applications. He further mentioned the need of the full-fledged updated testing facilities at all TRAs in view of ever-changing technological aspects and supportive role can be played by industry.

Shri Manoj Singh Gaur, Director, IIT, Jammu in his inaugural address, highlighting the MoU signed between IIT, Jammu and BTRA, emphasized the need of the collaborative works between IITs and TRAs.

At the end of the inaugural function **Dr. Arindam Basu,** Director General, NITRA, Ghaziabad proposed the vote of thanks.

Thereafter, Chief Guest and other Dignitaries inaugurated **Carbon Fiber Precursor state-of-the-art Line, (4000 filament capacity), first of this kind in India,** which is installed in BTRA's High Performance Fiber Lab. Also, they all visited the Exhibitor's Stalls and interacted with the exhibitors.

Over the two days, following sessions related to various topics were held.



Chief Guest Shri Manoj Singh Gaur, inaugurating Carbon Fiber Precursor Line

Over the two days, following technical sessions related to various topics were held.

Technical Session I - on First Day (14-02-2023)

Topic: **GEOSYNTHETICS**
Session Chairman: **Mr. Nilanjan Sarkar,** CTO, Tikitar & Shell India (P) Ltd.
Mr. Lekhaz Devulapalli, BTRA – The Development of Treated Geosynthetics Reinforced Asphalt and Concrete Pavements.
Mr. Shashikant Patil, Chintan Chavd & Deepali Plawat, ATIRA – Significance of European Standard EN45545-2 in Indian Mass Transports.

Session II:

Panel Discussion on "Challenges to Implement QCO and Regulatory Requirements for Geosynthetics and its Impact on Industry" was held which was presided by **Dr. Anup Rakshit,** Executive Director, Indian Technical Textile Association (ITTA) and following panelist:
Panelists:
Mr. Bidur Kant Jha, Director, Ministry of Road Transport & Highway, Govt. of India
Mr. Himanshu Shukla, Scientist-B, Assistant Director, BIS
Mr. Nilesh Kulkarni, GM, Business Development, Techfab (India)
Mr. Vijay Ramkrishna, Sr. Vice President, Garware Wall Ropes

The panelists shared their thoughts related to following topics

- Awareness on IS Specs. of Geosynthetics, QCO Concepts, and Guidance on Getting Product Certification
- Availability of Specialty Fibers and Yarns in Domestic Markets and Imports for Producing Geosynthetics
- Sharing Experience on Getting Certification on Geosynthetics Products.

Session III: TECHNICAL TEXTILES

Session Chairman – **Mr. Narendra Dalmia,** Director, Strata Geosynthetics, Mumbai
Ms. Nidhi Sisodia, Mr. A. K. Pandy, & Dr. Arindam Basu, NITRA

- Development of Mulch Mat and Crop Cover Fabrics using Bio-degradable Natural Material: Sunnhemp & Banana Fibers

Dr. Arindam Basu, & Ms. Archana Gangwar, NITRA

- Enhancing Impact Protection in Sports: Optimization of Shear 'Thickening Fluid Application on 3D Knitted Fabrics

Dr. M. S. Parmar, Ms. Nidhi Sisodia, Mr. Swami Sharan, NITRA

- Development of Aluminized Outer Layer of Specialized Firefighter Suit

Technical Session IV on Second Day (15-12-2023)

Topics: **CHEMICAL PROCESSING**
Session Chairman – **Mr. Anjali Prasad,** Vice President, South Asia, Textile effect and Management, Archroma
Mr. Prasanta K. Panda, Komal Kukreja, & Amol Thite, BTRA
- Standard Procedure to Identify Dope Dyed and Exhaust Dyed Polyester Fiber

Dr. N. Sudhapriya & Mr. S. Sivakumar, SITRA
Antioxidant Cosmetotextiles – Durable Nano – Encapsulated Vitamin E Finishes on Textile Fabrics and its Controlled Release Study
Mr. Murtuza Z. Channiwala, Mr. Pankaj Gandhi, & Bhavdeep Shah, MANTRA
- Promotion of Energy Conservation Techniques in Textile Processing Industry: A Case Study of South Gujarat

Ms. Afreen Begum & Dr. Padma S. Vankar, BTRA
- Printing with Natural Dye Lakes Made from RE Salts

Technical Session V

Topics: **SPINNING**
Session Chairman – **Mr. Gurudas Aras,** India Advisor, ITA, Germany and Independent Director (Rossari Biotech Group of companies)
Mr. N. K. Nagarajan, SITRA
- Study on Lint Content in Blow Room Lines

Mr. V. Vijayajothi & Mr. N. K. Nagarajan, SITRA
- Effect of Short Fiber Content (SFC) in Raw Material on Lint Shedding Propensity of Conventional and Compact Yarns

Dr. V. Thanabal, SITRA
- A Comparative on the Quality of Airjet and Ring Soun Yarn Made from Cotton

Dr. Amalorpava Mary, SITRA
- Design and Development of Facile High Throughput Needle Less Electro-spinning Set Up

Technical Session VI

Topics: **EMERGING AREAS**
Session Chairman – **Dr. R. R. Deshmukh,** Institute of Chemical Technology (ICT), Mumbai
Ms. Shreyasi Nandy, Mr. T. V. Sreekumar, Ms. Shital Palaskar & Dr. Neha Mehra, BTRA
- Plasma Assisted Incorporation of Flame Retardant Chemicals for Improved Flame Retardancy of Polyester Fabrics

Mr. Partha Bairi, Mr. Ankush Sharma & Mr. Tanmoy Gangopadhyay, ATIRA
- Effect of Nanocarbons on the Carbon Fibers – Reinforced Polymer Composite's Properties

Ms. Shital Palaskar, BTRA
- Durable Antistatic Finishing of Polypropylene using Nano Graphene and Plasma Technology

Technical Session VII

Topics: **PRODUCT DEVELOPMENT**
Session Chairman – **Mr. Ullas Nimkar,** Chairman, NimkarTech Technical Services
Ms. Neha Kapil, Dr. Arindam Basu, Ms. Priti Kaur Sachdeva & Mahesh Dutta, NITRA
- Development of Natural Fibre Composite for Automotive having Acoustic Properties

Dr. M. S. Parmar, Ms. Shweta Saxena, Mr. Swami Sharan & Mr. Mahadeb Dutta, NITRA
- Study on the Development of Molten Metal Splash – Resistant Jute-Cotton Union Fabrics

Mr. Ankush Sharma, Mr. Partha Bairi, Bhabatosh Biswas & Mr. Tanmoy Gangopadhyay, ATiRA
- Development of Natural Fibre Based Composite Material for Prosthetic Leg Socket

Mr. Amol Thite, BTRA
- A Comprehensive Root Cause analysis of Defects in Textile Materials

Technical Session VIII

Topics: **NANO FIBRES AND NANO MATERIALS**
Session Chairman – **Dr. Neha Mehra,** Hod, Textile Department, VJTI, Mumbai
Dr. Chetan R. Mahajan, & Ms. Deepali Plawat, ATIRA
- Free Surface Electro-spun Collagen Nanofibres as Cosmetotextiles

Ms. Smita Deogaonkar Baride, Ms. Padma S. Vankar & Tanushree V. Tandel, BTRA
- Characterization and Antimicrobial Application of Cu and Ag Nanoparticles Coated Fabric

Mr. Murtuza Z. Channiwala, Mr. Paankaj Gandhi & Mr. Bharat Patel, MANTRA
- Biosynthesis, Characterization and Efficiency against Bacteria of Silver and Copper Nano Particles by Nucleation Technique

Mr. Nishant Chandel & Mr. Ankush C. Kanse, BTRA

- Investigation of the Effect of Solvent and Parameters on the Dispersion of Graphene: A Study through MATLAB Simulation

At the end of two days Conference, **Dr. T. V. Sreekumar** in his vote of thanks expressed sincere thanks to all the Sponsors, Advertisers, Delegates, Office Staff and Press & Media for their support and the cooperation to make this Conference a grand success.

At the end of the conference a National Anthem was performed.

Overall, the **61st JTC – Joint Textile Conference** was a memorial grand success event and highly appreciated by the participants from industry/institutes/associations, speakers, sponsors and the industry stalwarts. There were more than 350 delegates attended.