

INTERNATIONAL CONFERENCE ON “TECHNOLOGY & MACHINERY INNOVATIONS FOR TECHNICAL TEXTILES”

19th January 2019 | Bombay Exhibition Centre, Mumbai, India

The Indian Technical Textile Association (ITTA) organized a one day International Conference on **“Technology & Machinery Innovations for Technical Textiles”** held on 19th January, 2019 at Bombay Exhibition Centre, Mumbai. As one of the activities on dissemination of knowledge on technical textiles, ITTA organized conference solely focused on the latest developments on technology and machinery for technical textiles to encourage current producers to expand & diversify new entrepreneurs to invest in this segment, generate ideas for Start-ups. This event was held parallel to the 2nd Global Textile Technology & Engineering Exhibition (GTTEs 2019) organized by India ITME Society from 18-19th January, 2019.

This conference was timed appropriately as just few days back, on 15th Jan, both Ministry of Commerce & Industries and Textiles have recognized it as a Sun Rise Industry and officially notified 207 products as technical textiles and gave a special Identity. These 207 HSN Codes are spread across many chapters. This will now remove confusions in the mind of the manufacturers and give a boost to the investment, growth & ease of business in Technical Textile sector. This was possible with great efforts put in during the last couple of years by ITTA, Industry representatives and the Ministry of Textiles.

The event was inaugurated by Dr. K. S. Sundararaman, Chairman, ITTA. Mr. Amit Agarwal, Vice-Chairman, Mr. Pramod Khosla, Past Chairman ITTA, Dr. Anup Rakshit, Executive Director of ITTA and Mr. Ketan Sanghvi, India ITME Society also graced the inaugural session. Mr. Sanghvi thanked ITTA for organizing the fruitful conference for encouraging the new innovations in the field of Textile Technology & Machinery. He also said India ITME Society will be happy to work together with ITTA in future.



There were 11 speakers from Germany, France and India who shared their rich experience and latest information on the supply chain management, marketing challenges, innovative technology and machinery for nonwovens, woven, knitted and advanced finishes and coating technologies.

The Conference started with the first Technical Session on Innovations in Technology & Machinery for production of various types Nonwoven Fabrics and their applications. This session witnessed the excellent presentations by the speakers from India and abroad. They include Mr. Elias Junker, LAROCHE SA, France, Mr. Yogesh Garg, Dilo India, Mr. Sanjay Murabatte, Trutzschler Nonwovens & Man-Made Fibers, Germany and Mr. Pradeep Deshpande, Hi-Tech, China. Dr. Anup Rakshit, Executive Director, ITTA felicitated the speakers.



Mr. Elias Junker presented the topic on *“A Sustainable Solution to Post Consumer Textiles for Automotive Nonwovens”*. Different nonwovens solutions for Automotive are blending lines for fibers and polymers, Airlay Flexiloft, Airlay Flexiloft +, Airfelt with Resin Felt Option and Airfelt. Above solutions are used for different applications in automotive sector.

“Latest Technology for the Production of Needle Felted Nonwovens and their Applications” was presented by Mr. Yogesh Garg. He covered various non-woven products and their different applications, manufacturing technologies starting from Fibre Opening and Blending, Carding, Cross Lapping, needle punching and finishing, brief about various options available from DILO Group for complete production process, concepts, products and services, Latest products for highest standard of production and quality like Vector Quadro Carding Machines, DLSC Cross Lapper, Hyper Tex and many others. And also discussed about the availability of product development and research facilities at DILO Head office in Germany and services offered by DILO from their office in India.

Mr. Sanjay Murabatte spoke about the *“Innovative Solutions and Machinery for Hygiene Applications”*. Nonwovens are used for different applications i.e. personal care, home & daily life and industrial end uses. It has a lot of advantages i.e. make products last longer, increase safety, improve functionality, save time, reduce costs and simplify life. They emphasized about the different nonwovens technologies’ and their different applications. Spunlacing - wipes, cosmetic pads, femcare, medical textiles, filter media, automotive headliner, Thermobonding- Top and back sheet, ADL for diapers, insulation for automotive, Chemical bonding ADL for diapers, Needling- Carpets, wipes, geotextiles, filter media, technical felts, automotive. And also briefed about the making of the conventional wipes and cotton nonwovens.

Mr. Pradeep Deshpande presented the topic on *“Cost effective approach to Innovations in Spunlace Technology and Machinery”*. He talked about the spunlace principal and its applications such as lining material, artificial leather substrate, wipes etc. Areas for innovations for cost effective manufacture of spunlace fabrics are saving in Power Consumption by Optimum Water-Jet Design & Vacuum Suction Slit Size and Pattern, saving in Water Consumption, reduction in Heating Resource consumption by Air-through Dryer uses Direct Burning, reduction in Running and Maintenance cost by using the Best Brand Parts and reduced Management Cost through online supervision system.

The Second Technical Session on Supply chain management and Marketing challenges in Technical Textiles. The session includes the presentation from Mr. Avinash Mayekar, Suvin

Advisors and Mr. Amir Sheikh, Gherzi Consultancy. The Speakers were felicitated by Dr. K. S. Sundararaman, Chairman, ITTA.



“Marketing Challenges for Technical Textiles” was presented by Mr. Avinash Mayekar. He emphasized about the Global Technical Textiles market which is projected to reach \$193 Bn. by 2022 and Indutech, Mobiltech, Packtech, Buildtech & Hometech are the 5 major applications, which represents 2/3 of world Technical Textiles market. Packtech is the major application with 42% share in total Technical Textiles market in India. It also highlighted the different challenges for technical textiles i.e. marketing, product knowledge, certification & testing and unawareness. Technology Solutions can be found by comparing technologies from Developed Countries & Underdeveloped Countries.

Mr. Amir Sheikh presented the topic on *“Industry 4.0-An approach towards Smart Factory”*. Industry 4.0 is an Industrial revolution based on cyber-physical-systems and its components are Augmented reality (AR), Cloud computing, Simulation, Autonomous robots, Additive manufacturing, Big data, System Integration, Cyber security and Internet of Things (IoT). It has broken the old traditional value chain which is now called as “New-Potential” value chain within Industry 4.0 – eliminate gatekeepers and middlemen (From raw materials → Old & “disruptive” technologies → consumer). For example, the largest online retail store- Amazon has adopted the industry 4.0 for increasing its business which has given a positive effect to Amazon.

The Third Technical Session on Innovations in Technology & Machinery for production of various types woven and knitted Technical Textile Fabrics and their applications. This session

has presentations by the speakers from India and abroad. They include Mr. Hagen Lotzmann, Karl Mayer, Germany, Mr. Salil Shah, Prashant Gamatex and Mr. P. Kasiviswanathan, Picanol India. Mr. Amit Agarwal, Vice-Chairman, ITTA felicitated the speakers.



Mr. Hagen Mr. Hagen Lotzmann presented on *“Warp Knitting for Technical Textiles”*. In this session many weft insertion machines were discussed i.e. Tricot machines WEFTTRONIC® I/HKS/TM WEFT and Raschel machines- WEFTTRONIC® II RS& RS MSUS – G (HG) / RS MSUS – V. It also highlighted about Textile reinforced concrete and its advantages are 4 times lighter, upto 80% material saving, CO₂ reduction, higher lifetime, 6 times stronger & 24 times efficient. It is used in the following applications such as Precast concrete parts e.g. for bridges or pavillion, Parts for modular constructions and Rear-ventilated curtain walls. Also explained about the Non crimp fabrics machines- BIASTRONIC® CO / COP BIA 2 & COP MAX 4 / MAXTRONIC®, Fibre spreading machines- UD 500 / UD 700 and Processing of spread tapes- COP MAX 5 with its different applications.

“Latest Innovation on Technology and Machinery on production of all segment of Technical Textile for weaving preparatory” was presented by Mr. Salil Shah where he mentioned the latest innovations of warp preparation systems for woven fabrics. Firstly it talks about the sectional warping machines for technical textiles and the 2 latest developed models are Technical Textiles – Techtronic (higher beaming tension: up to 60 KN) which is used for the production of very heavy weight fabrics which comprises of course denier/ count yarns of high tenacity material like Kevlar/ PP- HDPE spun yarns, etc. and Lasertronic Plus which are suitable for almost all 12 groups of Technical textiles (for light to medium weight fabric). Secondly, Polybeamer – for weaving of HDPE/PP tape yarns for flat fabrics.

Mr. P. Kasiviswanathan talked about the *“Innovations in weaving for Technical Textiles”*. He mentioned that globally 8% of Technical textiles consumption in tons/year and represents about 15 % of total revenue in value. He explained about the high tech rapier weaving machines such as OptiMax-I which is used to weave the para-aramid fibers i.e. Kevlar, Teijin Twaron, Kolon Heracron, etc. Some of the properties of the machine are DWC low inertia backrest, Ecofill Waste-less on LHS and 3 cm waste only on RHS. He also talked about the Agrotexiles market which is switching to wider widths machine. He said the new GPG guided Positive Gripper is used in projectiles machine which offers high speed, simple to operate and maintain, more versatile and cheaper. This machine is used for making the anti-hail fabric.

The Fourth Technical Session on Advanced Finishing & Coating technologies and processes gives functionality and value to the technical textile products which includes presentation from Mr. Stephan Kehry, Mahlo, Germany and Mr. Alex Dhanadurai, Archroma India. The Speakers were felicitated by Mr. Amit Agarwal, Vice-Chairman, ITTA.



“Technical Textiles: Guidelines for a smooth production” was presented by Mr. Stephan Kehry. He emphasized about the importance of technical textiles, its risks such as skew fabric, Reprocess, Claims, Reputation and High cost (energy), its chances such as straight fabric, cut down energy costs, right first time – quality management systems, increased efficiency, good price level and growth rate 4% p.a. and also about the Industry 4.0: starting the future in control and its capabilities.

Mr. Alex Dhanadurai spoke on *“Advances in Functional Finishes- Performance that cares”*. The presentation highlights about the different finishes used for Technical textiles. Silicone Coatings –

Appretan S series find a large application area in the protective, industrial, construction, automotive and sports/leisure segment. Appretan®- Water based polymer dispersions for textile and nonwoven and Pekoflam®- Eco-advanced flame retardants for consumer protection. Wide range of halogen free flame retardant HFFR for various applications such as Protective & military wear, Automotive & Transportation, Furnishing / home textiles and Construction materials/ industrial nonwovens.

The conference received over whelming response and attended by more than 200 delegates from the technical textile Industry, potential investors, number of graduate & post-graduate students and teachers from various textile and management universities and colleges.

FEEDBACK FROM THE PARTICIPANTS

The feedback from the participants was very encouraging and most of them mentioned that their experience was overwhelming and the participation in the Conference was very useful. The topics covered, speakers present and quality of discussion were very relevant in the context of encouraging the innovations in the field of Textile Technology & Machinery.



GLIMPSES OF THE CONFERENCE

