A Nonwoven Symposium was organized by ITTA jointly with Regional Office of the Textile Commissioner on 30th January 2015 at hotel The Leela, Mumbai.

The theme of the symposium was ‘Hitech Application areas of Nonwoven’. The symposium was supported by EDANA.

Nonwoven is a wonder fabric, the potential of which remains untapped in India. The nonwoven can be engineered to offer cost effective solution for the manifold challenges of the Indian economy. The Functionalization of nonwovens opens up the possibilities of various application areas.

The objective of the Symposium was to present to the delegates the innovative, high performance application areas of nonwovens which offer high margins. Top level international & national speakers made presentations on the topics of interest to the industry.
The Nonwoven Symposium received overwhelming response from the industry and about 155 delegates attended the symposium.

The event was sponsored by Khosla Profil Ltd., CHT India Pvt. Ltd., Reliance Industries Limited, Shiva Texyarn Limited and Welspun India Limited.

The symposium was inaugurated by Chief Guest Shri Sujit Gulati, Joint Secretary, Ministry of Textiles. In his address he detailed out the various government scheme initiated by the Govt. for promotion of the technical textiles. He also appreciated the efforts of ITTA in organizing the symposium.

A ‘Hand book on Nonwovens’ was also released during the symposium and was given to delegates on complimentary basis.
In addition to the inaugural session there were four technical sessions in the symposium. The first technical session was chaired by Dr. K S Sundaraman, Executive Director, Shiva Texyarn.

Mr. Jean-Michel Anspach, Technical Director, EDANA made power point presentation on topic of ‘Challenges And Opportunities For The Global Nonwoven Industry’.

The nonwoven production has normally exceeded global economic growth and outpaced global textiles fiber consumption.

Highlighted the growing use of nonwovens in areas of personal and healthcare, infrastructure, air & water purification and mobility (mainly automobiles) and mentioned that global per-capita consumption of nonwoven is expected to grow from 1 Kg in 2011 to 2Kg by 2025.

Pointed out that competitive challenges must be tackled with innovation and lobbying for free & fair trade; sustainability challenges to be met by efforts across supply chain and change perception.
Second speaker of the session was Mr. Milind Hardikar, Executive Director, Welspun India Limited, who emphasized on the ‘Need For Innovation To Grow The Business’.

Mr. Akchaya Kumar Sinha, Reliance Industries Ltd. presented the Indian nonwoven scenario and also ‘Emerging Opportunities For PP Nonwoven In Agro And Medical Textiles’.

Growing use of nonwovens in hygiene & healthcare, as disposable sheets in trains. To harness the untapped potential of nonwovens in India, support from ministry, investors and awareness in farmers are the key thrust areas.
The second technical session was chaired by **Shri Prashanth Chandran, Joint Managing Director, Precot Meridian Ltd.**

**Dr. Michael Bildhauer, CHT R. BEITLICH GMBH** made the presentation on ‘**Functionalization Of Nonwovens**’.

**Huge growth potential for nonwovens in India.** Expected nonwoven production rate in 2011-16 for the world is 7.6% / yr and for India, its a staggering 20% / yr.

**Elaborated on spin finishes and finishing and coating technology of polyester, polypropylene to realise the functionalization of nonwovens for hitech applications.**

**Applications in various areas like mosquito repellency, anti-slip etc. absorbant hygiene, geotextiles, wipes & filtration indentified as key growth drivers.**
Mr. Vinay Karulkar, MD, BWF Tec India Private Ltd., presented surface and chemical treatments to ‘Nonwovens For High Temperature Filtration’

Explained the mechanism and design of a filter medium along with its working principle.

Discussed the different types of filter media used for high temperature filtration (polypropylenesulfide, m-Aramid, Polyimide, Polytetrafluoroethylene) and their characteristics.

Applications in various areas like Power plants, Aluminum production, Asphalt mixing plants, Biomass combustion, Chemical and pharmaceutical industry, food, cement, steel and coal industry etc.

Dr. Srinivas Cherukupalli, Technical research scientist, DuPont, spoke about ‘Application Of Nonwoven In Thermal Management Of Perishable And Temperature Sensitive Products’.

Listed major causes for rejection of perishable temperature sensitive goods like fruits, vegetables, pharmaceuticals etc., i.e. temperature water/moisture, mishandling, inadequate packing, pilferage etc.

Thermal excursions identified as the major cause of temperature change during shipping of temperature sensitive cargo.

DuPont™ Tyvek is made by flash spinning and bonded using heat and pressure. It’s porous, light weight and continuous structure reflects almost all solar energy thereby providing good thermal protection to the stored goods.
The third technical session was chaired by Mr. B B Bharti, Joint Textile Commissioner, Office of Textile Commissioner.

Mr. Maréchal Desmet, DESMET BUSINESS GROUP, Netherland presented the ‘Frame Work Of Proposed Training Programme Inspired By CBI, Netherland’.

Non woven ITTA programme 2015-2017-2020 inspired by CBI entails: Selection application participants, Audit, Target 5 years, Zero start, Intermediary check and follow up (at site and distant guidance)

Totalling maximum 15 textile companies (Medical-4, Geo- 2, Protective- 4, agro-2, personal care-3) with two persons per company are eligible to participate. Individual support for the next years by means of on-site coaching, training schemes, market information, trade fair participation and business-to-business activities

Listed out european market demands, enhance the export comparativeness of the SME manufacturers.
Mr. Sukumar Roy, M.D., KE Technical textiles Pvt Ltd presented on ‘Critical Application Of Nonwovens In Battery Industry And Pollution Control’.

Fiber Glass, Polyester, Polypropylene, Nylon, Jute, Cotton etc find applications in Lead Acid Batteries, High temperature, cryogenic, Gaseous, corrosive and other hazardous industrial application areas.

Discussed the use of polyester Non-Woven Gauntlet Within car battery as Positive plate, technical advantages like High Power output/unit volume and resistant to short circuit, Greater surface area and utilization of active material, Better performance etc.

Highlighted role of Non Woven in controlling Air Pollution: Pulse Jet Cleaning in various industries like Boilers(Coal/Wood), Iron and Steel Production, Cement Manufacturing, Grain Milling etc.

Mr. Mayank Arora, Country Head, Lakeland Gloves and Safety Apparel Pvt. Ltd. (100% Subsidiary of Lakeland Industries INC, USA) presented the ‘Properties And Technical Requirement For Viral Barrier Fabrics For Ebola and other such out breaks’.

Informed the gathering about the latest WHO guidelines for PPE (cotton scrub suits, surgical gowns & plastic aprons) in hospitals and industry to prevent viral outbreaks.

Pointed out the major problem in standardized testing procedures i.e. vastly different environments in hospitals and industry.

Suggested ways to protect the people in work environment through a complete job safety and risk analysis, customised PPE for every type of job to minimise threat of infection, thorough defect analysis of PPE before use.
The fourth and the last session was chaired by **Mr. Mahesh Kudav, Venus Safety Health Pvt. Ltd.**

**Mr. Pankaj Kapoor, Chairman, Park group of companies** gave a presentation on ‘Coating and laminating to improve properties of technical textiles’

Discussed the advantages of Coating and lamination to enhance and extend the range of functional performance of technical textiles. viz cheaper raw material can give a high end product.

Stressed on importance of right machinery and strict process control to achieve optimum properties in the end product eg. flame retardancy, water repellance, phase change material etc.

Explained different types of coatings on nonwovens (dip, transfer, scatter, extrusion coating etc.) and the properties introduced by each method and recent developments.
Dr. Ashok Desai, Director, BTRA, presented on ‘Application Areas of Conductive Textiles’.

Use of conductive textiles in various fields like oil mine, cellphone & electronics, medical, military etc. by incorporating EMI shielding into the fabric.

Prof. (Dr.) P. A. Khatwani, HOD - Textile Technology, Sarvajanik College of Engineering and Technology, Surat, presented studies on ‘High Performance Applications Of Nonwovens’.

Explained the modern method of making conductive textiles using carbon nanotubes and intrinsically conductive polymer layer.

Discussed coating of nonwoven PP and jute with a conductive polymer and results of EMI shielding tests which showed improved conductivity of nonwoven as compared to synthetics.

Changing technology has also changed perception of nonwovens as a one time use ‘fabric. Now reusable/rewashable nonwovens are being used for high tech applications like bedding, cloth interlinings, roofing, automotive & home furnishings etc. and as packaging materials & bags.

Washable nonwovens are made from spunlaced polyester & viscose blend or spunbonded polyester and polypropylene (PP). Results of washing tests and studies indicate that these materials retain their properties even after repeated washing.

Plastic, paper and PP nonwoven are the raw materials for Nonwoven packaging bags. PP non woven are eco-friendly and cost effective. Results of study on properties of nonwoven bags of different sizes and GSM were showed.
The symposium ended with networking dinner where in participants interacted with each other as well as with the speakers and many business alliances were forged for mutual benefit.

The feedback from the participants was very encouraging and most of them mentioned that they have learnt many technical things which they will be able to utilize in their business for growth. There was also demand from the participants to organize the 2nd edition of the symposium.