Innovation in textiles to be highlighted at TITAS

TITAS, Asia's leading trade show for innovation in textile applications will return to Taipei, Taiwan from 12-14 October 2022.

The 26th Taipei Innovative Textile Application show, known as TITAS will take place in Hall 1 of Taipei Nangang Exhibition Center.

367 exhibitors from across the globe are expected to participate in the show, which is the only textile innovation trade show in Taiwan. Besides the exhibitors from domestic textile & apparel industry, there is also an important number of international exhibitors including Cotton USA, Microban, HeiQ, Ommi Srl and UK-based Alchemie Technology. The US, Italy, Japan, South Korea, Hong Kong, the UK, Switzerland and Sweden are among the nations with exhibiting companies.

While domestic visitor attendance will be high, with thousands of visitors already registered, many more are expected from the rest of Asia, Europe and the US. Key global brands make up an important portion of the visitor list.

What's more, the Sustainable Fashion Show, hosted by Taiwan's Ministry of Culture will join TITAS 2022, connecting local textile manufacturers to fashion designers and others along the fashion value chain.

Innovation at its heart

The eagerly anticipated event has an overall focus on innovation, with efforts particularly concentrated across five key areas. These are:

1. Sustainability in textiles
   As sustainability becomes more prevalent than ever before, the exhibitors will focus on adopting eco-friendly materials and manufacturing processes for cleaner production, circularity, reducing carbon emissions and achieving zero discharge of hazardous substances.

2. Functional applications
   Following in the growth of the technical textiles market, the event will spotlight added value textiles and apparel with multifunctional purposes for key application areas such as sports, outdoor, fitness and health and wellbeing.

3. Personal protective equipment (PPE)

In the aftermath of the Covid-19 pandemic, TITAS and its exhibitors will focus on the development of personal protective and medical textile products using advanced textile technology.

4. Intelligent manufacturing

Digitalisation is paramount if the textile industry is to adapt to changing market and consumer needs. At TITAS 2022, the industry will come together to showcase hi-tech automation systems and solutions to enhance production efficiency, streamline processes and provide value-rich data that will, in turn, increase manufacturing margins.

5. Smart textiles

Another high-growth area of the textile market, TITAS will look at the increasing research and development around smart textiles and how companies are combining cloud computing and wireless communication technology to provide detective capability in textile applications.

Key exhibitors

Sustainability x Functional Applications

Among the many exciting exhibitors at TITAS 2022, include many looking to reduce their carbon footprint.

Far Eastern New Century focuses on sustainability with its most recent textile innovations. It will present brand new materials and product solutions this year at TITAS. For example, the company will promote its FENC® TOPGREEN® rTEX Spun Yarn. This yarn is made from textile waste from the factory floor. The result is a 100% recycled pre-consumer polyester and 100% recycled pre-consumer cotton yarn that is free from any chemical treatment.

Additionally, FENC® TOPGREEN® Bio3 PET utilises LanzaTech cutting-edge biotechnology that transforms industrial waste gas into low carbon MEG, which then turns into brand new polyester, the company says. Capturing and reusing carbon emission, FENC® TOPGREEN® Bio3 PET Filament and Textiles reduces the company's carbon footprint.

With another nod to sustainability, **Formosa Plastics Group**'s exhibition theme for the 26th edition of TITAS is a "Circular Recycling Universe." Combining the concepts of circular economy and the Metaverse, Formosa Plastics Group focuses on using technology to harness a wide variety of different renewable and recyclable natural materials, says the company. Through these efforts, the Group says it has improved its product mix, creating a circular economy and allowing carbon reduction and green energy to truly become a part of people's lives.

Zig Sheng says its sustainable yarn lowers manufacturers' carbon footprint. Its Netup nylon, made from recycled fishing net, Revert nylon, a low-carbon recycled yarn which turns nylon waste into nearly 2,400 tons of yarn every year, and its high flexibility, low fibre-shedding yarn, Soufflex are great ways to improve environmental footprints.

Eclat Textile Co will be exhibiting under its new value proposition 'Materials with purpose', as it continues to grow in to the activewear sector. The company's Primefit Zero material is a stretchy textile with a fine furrow structure composed of highly compressed strands of flexuous yarns. They maximize its stretch capabilities and inhibit the loss of elasticity for a longer life cycle, the company says. It is also 100% recyclable.

With net zero carbon emissions in mind, TITAS exhibitor **LIBOLON** has developed a green circulation concept through water circular economy, green recycling fibre products such as its RePET$^{®}$ eco-friendly polyester recycled yarn and its ReEcoya$^{®}$ recycle dope dye yarn.

Shinkong Synthetic Fibers Corporation is another TITAS exhibitor working towards carbon neutrality. At the show, the company will focus on sustainable topics, including its yarn made from recycled garments. Using specialised technology, Shinkong is getting rid of textile waste by taking garments, that would otherwise have gone to landfill or be burned, back to the material stage to elongate the lifecycle of the yarn. The company will also be showcasing its biodegradable polyester yarn. It is also working on initiatives to develop its carbon neutrality.

Sustainability x Intelligent Manufacturing

Circularity is a theme that runs through many exhibitors at TITAS. **New Wide** Group says it is looking to create a carbon-neutral circular supply chain in the textile and apparel industry. The company has set up digital "Intelligent manufacturing data control centres" (IDCC) at its factories in Changzhou (China) and Phuoc Dong (Vietnam) to track production and performance data in real-time to achieve an efficient, smart and sustainable manufacturing process. New Wide says it applies the Higg FEM and vFEM modules and is verified with international environmental certifications such as bluesign, OEKO-TEX Standard 100, etc.

At TITAS, New Wide has organised four topic zones: Desert Explorer, Ocean Flow, Optimised Performance and Creative Community. These zones focus on high-performance fabrics including anti-bacterial, breathable and extraordinary wicking functionalities around eco-fashion. The company will also focus on its Naia™ Renew technology - a new age eco-friendly and luxurious fabric of di-acetate cellulose.

Meanwhile, exhibitor **Everest** Textile Co, will promote its innovative and sustainable technology for environmental protection. Everest develops innovative high-performance and sustainable fabrics, including carbon capture, bio-based, recycling and bio-based composite PET high performance products, the company says. It will also showcase its carbon capture polyester yarn, bagasse bio-based polyester yarn, E-2000 recycled polyester composite bio-based polyester eco yarn, recycled fishing net nylon yarn, recycled high tenacity nylon 6,6 (Cordura® re/cor®), Morphlon® Waste Shoe material recycled yarn and pineapple fibre yarn.

What's more, the **Taiwan Textile Research Institute** (TTRI) will exhibit research and development projects in high-end textiles, environmental sustainability, digital innovation and smart textiles and training. Their highlighted products include deodorisation polyester masterbatch and fibre, 2DF high colour fastness dope dyed fluorescent fibres, PCM-long term thermal control technology, generic ECO elastic conductive slurry, precision exercise assistant clothing and force detecting and responding textiles etc. the organisation says.

TITAS exhibitor **OSHIMA** Taiwan is a leading smart equipment supplier to the garment industry. In partnership with the TTRI and textile producers, OSHIMA says it has developed "the first truly capable domestic fabric inspection machine". This development will be on show at TITAS 2022.

OSHIMA EagleAi is the first AI fabric inspection machine to master knitted and stretched fabrics while simultaneously maintaining fabric tension within 2%, says the company. It continues: "Our neural network has already learned all the most common fabric flaws, including flux spots, flux contamination, colour spots, colour contamination, filth, oil contamination, holes, knots, folds and colour differences, weft defects, warp defects, hooked yarns, among others." Averaging an overall accuracy rate of more than 90%, an accuracy rate of 94% and a recall rate of 86%. The biggest advantage however is that the technology can detect over 70% of unfamiliar fabrics in four hours or less, even without prior fabric data input.

Functional Applications x PPE

The demand for protective textiles with functions of safety protection, comfort & aesthetics has been increasing. TITAS showcases a variety of protective textiles for medical use, special clothing and sports. For example, **Tex-Ray** Industrial Co, has been dedicated to research and development, especially in smart textiles and functional, antimicrobial and sustainable materials. The company showcase their latest innovations including their patented high-resolution and environment-friendly printing technology HD ECOPRINT, revolutionary eco-dyeing process Ecoloration technology, T-Fresh Antimicrobial Materials Series and so on.

To do its bit to protect the ocean, **SINGTEX**® Industrial Co, a manufacturer of functional fabrics, will launch the 13th generation of S.Café® at TITAS 2022. The S.Café® Ocean, environmental technology ocean coffee yarn takes recycled PET bottles from the ocean and combines them with coffee yarn technology (TW I338729). The company says this reduces waste but the yarn also has odour control and quick drying properties.

The company will also promote its STORMFLEECE® fabric at TITAS. STORMFLEECE® replaces the traditional knitted fleece with single-layer weave fleece. The compact structure of the weave fabric can reduce the flow of microfibres into the ocean during the washing process and uses solution dyed technology to save water resources, according to SINGTEX®.

Additionally, the company's STORMEGA® product uses fabric to create an air layer. This 3D air layer can capture and maintain body temperature without using fleece.

Also at the show, **Light Textile** is showcasing its LIGHTEMIS® technology, launched in 2021. This is a fine denier yarn combined with elastic with reflective properties. It can be used in apparel and footwear, providing safety in the dark with high comfort, the company says.

Educational sessions deliver innovative technology

TITAS held a number of forum and seminars related to circular textiles and sustainability and has invited both local and foreign experts to discuss on issues about circular economy in the textile sector as well as textile technologies. In addition to the Circular Textiles Forum "Taiwan Textile Industry on Its Way toward a Circular Future", there are also 10 professional seminars on textile technologies that help for technical knowledge share. In addition, there will be 10 product launch activities and fashion shows presented by Taiwan Paiho and Cotton Council International, among others.

Integrating physical and virtual marketing to maximize business prospects

A hybrid event, TITAS' online visitors are also well thought of. TITAS adopt various digital technologies to create a digital, interactive and intelligent exhibition format.

- TITAS VR Online exhibition hall: a live version of the physical exhibition presenting both panoramic and detailed views of the Show. Launched this year, this new feature aims to provide a reality experience of the show tour to those international professionals who are not able to attend TITAS. Viewers can virtually visit to exhibitor's individual booth and access relevant information including company profile, e-catalog and contact info.

- TITAS Online Show: this 24/7 online platform serves as a marketplace for visitors to source the latest products from TITAS exhibitors - anytime and anywhere in the world. In addition to general product categories, products are also classified under five themes including Personal Protective Equipment, Functional Applications, Sustainability, Smart Textiles and Intelligent Manufacturing, and Trend Zone. The Trend Zone online show will run concurrently with the physical show, from 13 October – 14 November 2022.

- TITAS Live Stream: live interviews of selected exhibitors on their innovations together with a guided tour of their booth during the Show on YouTube, Facebook and TITAS website.

TITAS was selected as a demonstration field of the EXPO-TECH Pilot Project for Digital Exhibitions of the Bureau of Foreign Trade, introducing the following digital technologies to enhance the interactive experience of visitors:

- 3D Hologram Hybrid Booth: TITAS introduces new VR tech hologram booth with 3D modelling which adopts unique holographic display of 3D textile models and interactive gesture recognition technology. The technology enables visitors to view and feel the authenticity of the fabrics, while overseas exhibitors can showcase as they are in a live setting.

- Intelligent Manufacturing Interactive Immersive Space: this space is designed to display six intelligent manufacturing processes including dyeing and finishing, production management, CAD design, cutting & printing, sewing & bonding, packing via VR technology. The interactive projection mapping walls combine advanced projection technology, touching technology together with digital interaction and space design, this area provides visitors with an immersive exhibition experience.

To register your attendance, please visit: TITAS