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HKRITA Achieved Spectacular Results in the 44 International Exhibition of Inventions Geneva this Past Weekend

The Hong Kong Research Institute of Textiles and Apparel won three gold medals, one silver medal and two bronze medals at the 44th International Exhibition of Inventions Geneva.

Among the Gold Medals, two were awarded with special “jury commendation” meaning that these were the best among all the gold medals awarded. One of the gold’s with jury commendation was our in-house project, “solvent-assisted dyeing of natural fibre”.

Mr Edwin Keh, HKRITA's CEO says, "the success of HKRITA at Geneva this year is a great encouragement to us. This is especially because of the high praise we received for our in-house project. All our projects strive to address the needs of our industry, our economy, and our community. HKRITA will continue to work on innovative solutions and disruptive technologies while driving for a sustainable future. We want these projects to be the first of many more successful collaborations. Hong Kong is the leading global centre for the textile and apparel industry. HKRITA will work hard to support and strengthen the leading position of our industry.”

HKRITA’s winning projects are:

1) Solvent-assisted dyeing of natural fibre - Gold medal with jury’s commendation

HKRITA has developed a novel dyeing process using green solvents. This process uses about 1/10th of water compared to current dyeing methods. The green solvents used can also be recycled.

2) Conversion of food waste into polylactic acid fibre (PLA) - Gold medal with jury’s commendation

This is a novel biological process using food waste as the raw material to produce PLA fibre. The technology uses a fermentation process to yield lactic acid. This is then polymerized and spun into fibre. PLA is biodegradable and so the final textile product will degrade to H₂O and CO₂ after its useful life.

3) Innovative Spinning System for Chitosan Yarn - Gold medal

This innovative spinning system efficiently maintains the fibre mechanical properties and 99% of the anti-bacteria properties of Chitosan fibre. It also solves electrostatic issues in spinning and reduces high material wastage during production. The production cost is very competitive. Chitosan products made by this system are useful in wound-healing, as an anti-bacterial barrier, and for skin protection.

4) Smart fetal monitoring belt - Silver medal and a special award by Scientific Community of Romania

This belt has a fabric sensor pad which can detect fetal movements in a non-invasive manner. It can monitor the heartbeat, fetal health and signs of any abnormalities. The fabric sensors inside the belt are waterproof and radiation free.

5) Reactive disperse dyes for natural textiles in supercritical carbon dioxide - Bronze medal





It is a novel disperse reactive dye method for natural fibres dyeing in supercritical carbon dioxide dyeing conditions.

6) Development of superfine wool products - Bronze medal:

This is a novel process of modifying an existing cotton production system to manufacture products made from a novel wool fibre, and superfine wool fibre. The new process is faster and simpler than the conventional production of wool. The products made by the superfine wool are expected to show better properties than some products made from cashmere.

HKRITA has taken part in this international event since 2010 and has received multiple gold medals.

For enquiries, please contact: Ms SC Ku: 2627 8112 (scku@hkrita.com)

	<p>HKRITA gains a rich harvest in the International Exhibition of Inventions Geneva</p>
	<p>Gold medal with jury's commendation - Solvent-assisted dyeing of natural fibre</p>
	<p>Gold medal with jury's commendation - Conversion of food waste into polylactic acid fibre (PLA)</p>
	<p>Gold medal - Innovative Spinning System for Chitosan Yarn</p>

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18/4/2016

香港紡織及成衣研發中心於「日內瓦國際發明展」獲豐碩成果

香港紡織及成衣研發中心於第四十四屆「日內瓦國際發明展」獲得三金、一銀、兩銅佳績。其中兩項金獎更屬評審團特別嘉許金獎，研發中心的自主研發項目「溶劑輔助棉纖維染色」是其中之一。

研發中心行政總裁葛儀文先生表示：「我們今年的成績叫人鼓舞，尤其是評審對我們自主研發項目的肯定。我們的研發針對業界、經濟和社會的需要，提供新方案及帶來顛覆性發展的技術，拓展社會邁向可持續的未來。」

葛先生續道：「我們期望這次的獲獎項目可以作為未來與各界合作的成功楷模，香港紡織及成衣研發中心會努力推動本港繼續成為領導全球紡織製衣業發展的中心。」

研發獲獎項目如下：

1) 溶劑輔助棉纖維染色 – 評審團特別嘉許金獎

研發中心開發的創新染色工藝的用水量只佔目前市場染色方法用水量的十分之一，節省用水之餘，所採用的環保溶劑亦可以回收。

2) 廚餘生物轉化聚乳酸纖維 – 評審團特別嘉許金獎

這個生物轉化過程利用廚餘作為原材料，製作聚乳酸纖維，經過發酵過程獲取乳酸，再進行聚合作用，通過熔融紡絲製成纖維。由於聚乳酸可被生物降解，所以製成的紡織品最終可以分解成水和二氧化碳。

3) 新型殼聚醣紗線紡紗技術系統 – 金獎

這個紡紗技術系統可有效保持纖維的機械特性，並維持其百分之九十九的抗菌功效，解決紡紗時容易出現的靜電問題，減低生產時的嚴重物料浪費，提升生產成本的競爭力，系統所生產的殼聚醣產品具有促進傷口癒合、抗菌和保護皮膚的功能。

4) 智能胎兒監護帶 – 銀獎及 Scientific Community of Romania 特別獎

這是一項織物感應墊的開發，以非侵入性的方式測量胎動情況，監察胎兒心跳、健康及是否出現任何異常狀況。監護帶內的織物感應器防水，無輻射。

5) 於超臨界二氧化碳為天然紡織品進行染色的活性分散染料 – 銅獎

這項目通過改造分散性染料，在超臨界二氧化碳中為天然紡織品染色

6) 超細羊毛產品的開發及應用 – 銅獎

這項目改良現有的棉織物生產系統，開發新製作工藝來生產超細羊毛產品。新製作過程比起傳統羊毛織物生產過程更快捷簡單，而超細羊毛產品比起部份羊絨產品質地更優異。

香港紡織及成衣研發中心於 2010 年起參加「日內瓦國際發明展」，獲得多項金獎。

如有查詢，請與香港紡織及成衣研發中心古小姐聯絡(電話：2627 8112；電郵：scku@hkrita.com)。



香港紡織及成衣研發中心於「日內瓦國際發明展」獲豐碩成果



評審團特別嘉許金獎 - 溶劑輔助棉纖維染色



評審團特別嘉許金獎項目 - 廚餘生物轉化聚乳酸纖維



金獎項目 - 新型殼聚醣紗線紡紗技術系統

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