

Zeroing in on practical applications 唯用是尚



Development of fabric structure analysis and appearance evaluation system

The project is a collaboration between the Hong Kong Research Institute of Textiles and Apparel, Prof. George Baciu of the Department of Computing, and Prof. Hu Jinlian of ITC. It aims to develop a prototype of fabric structure analysis and appearance evaluation system for the purpose of quality evaluation and control. With funding of \$2.52 million from the Innovation and Technology Fund and the industry, the project started in March 2007 and will be completed in December 2008.

Two complementary parts of a fabric analysis system are being developed: the first part is a fabric analysis module for weave structure identification including fabric density, weave pattern, yarn thickness and colour sorting; the second part is the appearance evaluation module for knit fabric including dimensional change, spirality and hairiness. These two areas have numerous potential applications in the structural analysis, appearance evaluation, quality control and product design.

The research team believes that this digital analysis and evaluation system will benefit the textiles and garment industries and sharpen Hong Kong's competitive edge in the international textiles market by supporting our industry to enhance their product quality control and innovative product design.

興建，於二零零七年十月可作示範之用。牛博士認為理大的技術突破，關鍵在於學系間及國內外大學，包括北京清華大學及荷蘭代爾福特科技大學的跨專業合作。

織物結構分析和外觀評估系統的開發

該項目由電子計算學系白求智教授、紡織及製衣學系胡金蓮教授及香港紡織及成衣研發中心攜手合作，旨在研發出一套織物結構分析與外觀評估系統原型，用以有效評估與控制織物品質。研究獲香港政府創新及科技基金及業界資助二百五十二萬元，自二零零七年三月開展，預期二零零八年十二月完成。

現正建立的織物結構分析系統有兩個互補部分：一部分用於機織物結構測試分析，包括密度、組織、紗線細度和顏色分類；另一部分用於針織物外觀的客觀評價，包括尺寸穩定性、扭斜、起毛評估。這兩部分內容在產品識別、外觀評估、質量控制和織物設計方面具有廣泛的應用前景。

研究有助支援業界提升產品質量控制與創新產品設計，有利紡織及成衣業界的發展，同時增加香港在國際紡織業市場的競爭力。

