**Guangdong-Hong Kong Technology Cooperation Funding Scheme 2007**

**Textiles and Clothing**
**(Energy-saving and Environmental-friendly Production System and Material – Quick Testing Technology for Toxic and Harmful Textiles and Clothing Products)**

## Topic / Theme

Quick Testing Technology for Toxic and Harmful Textiles and Clothing Products (QTTP). To develop quick testing technology for checking any toxic and harmful substance existed in the textiles and clothing products.

## Background

2. With the growing concerns on health care and environmental protection more and more, recent decades, overseas customers prefer to buy non-toxic and harmless textiles and clothing.

3. A new European Community Regulation on chemicals and their safe use, "REACH Programme", has been set up on 1 June 2007. It copes with Registration, Evaluation, Authorization and Restriction of Chemical substances (REACH). It aims to improve the protection of human health and the environment by identifying the nature, components and properties of the manufactured or imported all kinds of chemical in Europe. Incidents such as Chinese garments with harmful formaldehyde found in New Zealand have highlighted the problem. With Hong Kong and the Mainland being a major supplier of textiles and clothing products to the global marketplaces, they are great opportunities to adopt QTTP to keep and ensure our products meet buyer's stringent specifications.

4. Applied research in textiles and clothing technologies will facilitate the development of quick testing technology on checking the toxic and harmful substances on textiles and clothing products in a fast and non-destructive way in coping with market demand. In this respect, it is considered that the collaboration effort between Guangdong Province and Hong Kong would help to boost the development on environmental concerned products in order to benefit the region.

## Scope

5. The proposed QTTP is to facilitate quick testing of toxic and harmful substances in textiles and apparel product. In the commercial world, testing of those substances can be timely and there is no instantly check on whether the specific textiles and clothing consignments (either in bulk or in single unit) have toxic substances before shipment. Opportunities exist for research and developing tests to provide a quick response.

6. The technologies of QTTP should improve the quality and efficiency of testing by the state-of–art analytical techniques, such as Total Reflection X-ray Fluorescence (TXRF), sensor technology, etc. The developed prototypes should be reasonably demonstrated in Hong Kong or any major cities in the Guangdong Province to prove its viability.

7. In order to spearhead and support research and development of QTTP, the ITF is seeking proposals on the following:

**(a) Quick Testing for Toxic Metal in Textiles and Apparel Product**

Toxic Metals such as arsenic, lead, antimony, cadmium, chromium (VI), copper, cobalt, nickel, mercury etc. have a adverse effect on human health. The project should:

(i) Design and develop testing equipment to detect toxic metal; and
(ii) Design and develop testing procedures to detect toxic metal.

**(b) Quick Testing for Harmful Chemicals in Textiles and Apparel Product**

Harmful chemicals such as formaldehyde, pentachlorophenol, tributyltin, dibutyltin, phthalates, etc are harmful to people. The project should:

(i) Design and develop testing equipment to detect harmful chemicals; and
(ii) Design and develop testing procedures to detect harmful chemicals

**(c) Quick Testing for Banned AZO Dyes (Carcinogenic Aromatic Amines) in Textiles and Apparel Product**

According to EU directive, banned azo dyes cannot be placed on the market or used for colouring textile and apparel products. In this respect, the suspected azo colorants should be eliminated out from the textiles & apparel product and should be confirmed by the test. The project should:

(i) Design and develop testing equipment to detect those carcinogenic aromatic amines; and
(ii) Design and develop testing procedures to detect those carcinogenic aromatic amines.

## Objectives

8. This invitation aims to solicit applied research and development proposals for the textiles and clothing industry to sustain and enhance its competitive edge in global marketplace, in the development of the fore front “QTTP” to demonstrate Hong Kong’s research and development capability.

## Target Beneficiaries and Benefits

9. The beneficiaries of the project results are textiles and clothing companies and also the industrialists showing interest in QTTP. It is envisaged that the results could enhance the competitiveness of manufacturers through the development of new product, technologies, process and design, in enhancing QTTP’s viability, performance, durability and quality.

**Extra Merit**

10. Extra merit will be given to those applications, which could leverage on Guangdong's R & D capability in the implementation of the project proposals. We encourage collaboration among tertiary institutions and support organizations in both Guangdong and Hong Kong, so that their existing R & D facilities, resources and knowledge may be leveraged for maximum benefit.

**Project Duration**

11. The project shall start in the first quarter of 2008 for a maximum of duration of two years.

**Electronic Submission of Applications (Application Form)**

12. Proposals should be submitted to the Hong Kong Research Institute of Textiles and Apparel (HKRITA) through the ITC Funding Administrative System (ITCFAS). Applicant has to first register as project coordinator of the R&D Centre. To prepare a proposal, a registered project coordinator should select "ITSP - R&D Centre (R&D Projects)" under grant type and then "Guangdong-Hong Kong TCFS: Platform Research Scheme" or "Guangdong-Hong Kong TCFS: Collaborating Research Scheme" as appropriate. The ITCFAS can be accessed via the ITF website at www.itf.gov.hk.

13. For regulations and submission requirements specific to the Centre, please visit its the website at www.hkrita.com or approach the contact persons listed below.

**Deadline for Application**

14. The deadline for application is on 22 October 2007, 5:00pm (Hong Kong Time).

**Contact Person**

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