

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

### **Textiles and Clothing**

#### **(Energy-saving and Environmental-friendly Production System and Material – Innovative Textiles and Clothing Production System to Save Energy/Fuel Consumption)**

##### **Topic/Theme**

Innovative Textiles and Clothing Production System to Save Energy/Fuel Consumption (ITCPS). To develop enabling technology for ETDC that can be applied in the textiles and clothing industry.

##### **Background**

2. Due to the rapid industrial development in the Great Pearl River Delta Region (the Region), pollution in the region, which affects air, water and environment, is a major issue that both Hong Kong and Guangdong provincial government are dealing with. The price for remedial action for pollution results would be costly if the root of pollution can not be solved. Production system adopted by textiles and clothing industry involves many processes which incur inefficient and high consumption of energy, fuel, resources, etc.

3. Textiles and clothing industry involves a large number of factories in the Region which consume high energy/fuel resources which may pollute the Region unless exhausted gas and effluent have been properly treated.

4. To achieve this end, applied research and development in lean down the production system for textiles and clothing products that could provide effective manufacture and lower energy/fuel/resource consumption. In particular, the swift adaptation of the new technology would give textiles and clothing industry in the Region an early mover advantage to spawn new business and facilitate the technological upgrading of the industry.

##### **Scope**

5. The proposed ITCPS is to lean down the production system of textiles and clothing system to a certain extent that could provide effective manufacture and lower energy/fuel/resource consumption. As a result, the productivity and efficiency would be increased whereas energy/fuel consumption and other resources such as number of workers would be also reduced accordingly.

6. The ITCPS should be developed in prototype system and 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 ITCPS, the ITF is seeking proposals on the following:

##### **(a) Compacted Production System for Textiles and Clothing**

To develop innovative production system for textiles and clothing sector, i.e., spinning,

fabric formation, bleaching/dyeing/printing/finishing, and apparel manufacture to save consumption of energy and fuel with the conditions that:

- (i) Compaction of processes in each sector, shortening processing time, maximizing labor utilization, reduction of production flow, meeting rapid changeover and customer demand; and
- (ii) Improvement in productivity and production efficiency.

**(b) Waterless Dyeing and Finishing Process**

In current textile dyeing and finishing processes, water is used as solvent for dye. However, this causes high energy/fuel consumption and creates environmental and economic problems. Research should focus on the:

- (i) Development of waterless dyeing technology (for example: supercritical fluid dyeing technology, etc.) for dyeing natural fibre and man-made fibre textiles; and
- (ii) Development of waterless textile finishing technology (for example: plasma technology, etc.) for finishing natural fibre and man-made fibre textiles.

**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. This will 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 ITCPS. It is envisaged that the results could enhance the competitiveness of manufacturers through the development of new product, technologies, process and design, in enhancing ITCPS'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](http://www.itf.gov.hk).

13. For regulations and submission requirements specific to the Centre, please visit its the website at [www.hkrita.com](http://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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