

Guangdong-Hong Kong Technology Cooperation Funding Scheme 2011

Textiles and Clothing (Innovative Textile Materials – Harmless & Environmental-friendly Natural & Man-made Fibres with Multi-functionalities)

Topic / Theme

Harmless & Environmental-friendly Natural & Man-made Fibres (HENMF) with Multi-functional Properties. To develop new textile fibres in non-toxic & harmless natural fibres and degradable/recycled man-made fibres which give minimum environmental impact and favorable multi-functionalities.

Background

2. With the growing concerns on environmental protection, overseas customers encourage the utilization of non-toxic and harmless textile materials in daily life. With China being a major supplier of the textile products to the global marketplaces, there are great opportunities to utilize HENMF to keep environment clean and safety.

3. The increasing trend of the solid waste (including textiles) imported into China for recycling after the mid-1980 arouses awareness on the recycling issue on environment impact. The Mainland Government has already implemented stringent regulations to control the imported waste for recycling, storage & disposing. It is a technical challenge to develop degradable or recycled man-made fibres with low energy consumption processing in order to reduce the pollutants.

4. Applied research in textile technologies will facilitate the development of new & innovative textile materials with the focus on non-toxic & harmless high quality natural fibers, and, degradable / recycled man-made fibers, with technologies on reducing the use of chemical and energy consumption during the production process should be exploited. 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 with excellent functions in order to benefit the region.

Scope

5. The proposed HENMF is to develop new technologies in the whole textile manufacturing process by the means of environmental-friendly use of non-toxic and harmless chemicals, reducing energy consumption & pollutants and recycling fiber materials.

6. With the growing demand on high quality textile materials, the technologies of HENMF also need to develop with value added fibres with favorable functionalities such as soft hand, light weight, easy care, thermo-regulated, moisture management etc.

7. In order to spearhead and support the development on Innovative Textile Materials,

the ITF is seeking proposals on developing the innovative textile material, which will be focus on producing environmental-friendly textile materials in the approach on the following three main areas:

(a) Non-toxic & Harmless Natural Fibres

To develop environmental-friendly natural fibres without the utilization of toxins chemicals during the manufacturing process. The technologies developed should:

- (i) Exploit chemicals used in cropping, scouring, spinning and dyeing would be metal-free and harmless to human and environment; and
- (ii) Develop high quality textile fibres and retain adherent properties in addition of favorable functionalities, such as soft hand, light weight, crease resistance for cellulosic fibre, etc.

(b) Degradable / Recycled Regenerated Fibres

To develop new regenerated fibres by the means of using the environmental-friendly manufacturing process. The technologies developed in this area should:

- (i) Optimize and upgrade the manufacturing process to be more environmental-friendly by using degradable chemicals, chemical recycling as well as low energy consumption; and
- (ii) Retain original properties in addition of other favorable functionalities, e.g. easy care, soft hand etc.

(c) Degradable/Recycled Synthetic Fibres

To develop new synthetic fibres by the means of environmental-friendly manufacturing process from materials which are derived from natural crops/plants or plastic bottles (e.g. PET). The technologies should be focus on:

- (i) Low energy consumption manufacturing process with non-toxic, metal-free and degradable chemicals; and
- (ii) Retention of adherent properties with the addition of favorable functionalities.

Objectives

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

Target Beneficiaries and Benefits

9. The beneficiaries of the project results are textile and clothing companies and also the industrialists showing interest in HENMF. It is envisaged that the results could enhance the competitiveness of manufacturers through the development of new textile fibers of HENMF in enhancing the fiber properties and reducing the energy consumption of the whole manufacturing process.

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 fourth quarter of 2011 for a maximum duration of two years.

Submission of Applications (Application Form)

12. To minimize unnecessary work and save time, the following two-step approach should be followed:

- (a) applicants should first brief HKRITA on the proposed application by way of a powerpoint presentation which identifies the key features of the project proposal – this will facilitate an initial assessment as to whether the proposal can be supported; and, if so
- (b) a formal application for funding, fine-tuned on the basis of earlier discussions, can then be formally submitted.

13. Please note that the application proposal for the funding has to be submitted by filling in the new application form downloaded from (<https://www.itf.gov.hk>). Three hardcopies with two of the original of the application should be stamped by your own Research Institution before submitted to HKRITA. We may require additional hardcopies of your application later.

14. For assessment of your application, ratings will be given to the following components:

1. Innovation and Technology Component;
2. Technical Capacity;
3. Financial Considerations;
4. Plan for Realization / Commercialization in future;
5. Relevance with Government Policies or in Overall Interest of the Community;
6. IP Rights; and

7. Management Capacity.

Deadline for Application

15. The deadline for application is on 16th September 2011.

Contact Person

16. Dr. Kai-chiu HO, tel: 2627 8188, fax: 2364 2727, e-mail: kcho@hkrita.com .