

**SME Development Fund/
Dedicated Fund on Branding, Upgrading and Domestic Sales
(Organisation Support Programme)**

Final Report of Approved Project

Project ref. no. : D09 001 023
Project title : A Far InfraRed (FIR) Technology and Reliability
Support Programme for Hong Kong Industries
Period covered : From 01/11/10 to 31/08/14
(dd/mm/yy) (dd/mm/yy)

1. Project Details

(Please mark with "*" if any of the following project details is different from that in the project proposal appended to the project agreement.)

Project Reference and Title

A Far InfraRed (FIR) Technology and Reliability Support Programme for Hong Kong Industries

Project Summary (in not more than 150 words)

This Project is to develop FIR reliability testing methodologies as well as establish FIR testing facilities and testing service in HKPC so that local SMEs can obtain the FIR product reliability test service locally and ultimately enhances their competitiveness in the FIR product market. Five workshops focused in four target industries, namely (i) household electrical appliances; (ii) industrial heating and drying; (iii) healthcare products; and (iv) food processing were organized to disseminate reliability testing techniques and requirements. An advance FIR tester was purchased for providing local SMEs with free-of-charge FIR testing service during the last 36 months of the 46 months project period.

Project Objective(s) (in not more than 80 words)

- (i) To assist SMEs to acquire in-depth understanding of FIR technology and its application
- (ii) To provide reliability testing facilities and services so that FIR manufacturers can receive the product reliability tests locally.
- (iii) To help local industry and manufacturers which cannot afford the capital and manpower to acquire the necessary equipment availability and technology during the financial crisis in the short term.

Grantee /Collaborating/Implementation Organisation Agent

Grantee : Hong Kong Far Infrared Rays Association Limited
Collaborating Organisation(s) : Not Applicable
Implementation Agent(s) : Hong Kong Productivity Council

Key Personnel

	<u>Name</u>	<u>Company/Organisation</u>	<u>Tel No. & Fax No.</u>
Project Co-ordinator	: <u>Dr Edward CHAN</u>	<u>Hong Kong Far Infrared Rays Association Limited</u>	<u>Tel: 2788 5756</u> <u>Fax:2788 5405</u>
Deputy Project Co-ordinator	: <u>Ms Angel WONG</u>	<u>Hong Kong Productivity Council</u>	<u>Tel: 2788 5783</u> <u>Fax:2788 5405</u>

Project Period

	<u>Commencement Date</u> (day/month/year)	<u>Completion Date</u> (day/month/year)	<u>Project Duration</u> (No. of months)
As stated in project agreement	<u>01/06/2010</u>	<u>31/03/2014</u>	<u>46</u>
Revised (if applicable)	<u>01/11/2010</u>	<u>31/08/2014</u>	<u>46</u>

Methodology Employed

- (1) Desktop research on the FIR technology, testing requirements and reliability studies was conducted.
- (2) Organized five workshops to enhance SMEs' knowledge and awareness on FIR technology, its applications, testing and reliability requirements.
- (3) Purchased and installed a FIR tester at implementation agent test site.

(4) Machine test run conducted.

(5) Developed a series of reliability testing methods and procedures.

(6) Provided reliability testing services for SMEs.

2. Summary of Project Results

Project Deliverables

(Please list out the targeted project deliverables as stated in the project proposal appended to the project agreement and provide details of actual result achieved, including beneficiaries, for each of them.)

Deliverable 1: Reliability testing service capability for FIR products, including necessary equipment.

Actual result achieved:

Except for the pre-approved adjustment of the installation schedule of the FIR tester, all the other project tasks to be implemented for this report period were completed according to the proposed schedules with respect to the revised Project commencement date. The installation of the FIR tester and the acceptance test run were completed in August 2011. New FIR testing service has commenced on 1 September 2011. The accomplished deliverables for this report period are:

- Establishment of free-of-charge FIR Reliability Testing Service.
 - No. of test jobs conducted : 824
 - No. of local SMEs using the test service : 67
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Deliverable 2: Five (5) technical workshops which demonstrate the FIR reliability test requirements and capability. The target number of participants recruited for each workshop will be over 100.

Actual result achieved:

Organization of five (5) technical workshops to demonstrate the FIR reliability test requirements and capability.

First workshop:

- Title : “遠紅外線技術工作坊(一):保健及治療器材在可靠性測試上的要求和能力”
- Date : 13 June 2011
- Venue : Business Environment Council, Kowloon Tong.
- No. of participants : 123

Second workshop:

- Title : “遠紅外線技術工作坊(二): 遠紅外線產品測試”
- Date : 26 September 2011
- Venue : Lecture Theatre, HKPC Building, Kowloon Tong.
- No. of participants : 115

Third workshop:

- Title : “遠紅外線技術工作坊(三): 遠紅外線產品測試與標準”
- Date : 17 February 2012
- Venue : 1/F Function Room, HKPC Building, Kowloon Tong.
- No. of participants : 78

Fourth workshop:

- Title : “遠紅外線技術工作坊(四):發熱材料的應用及商機”
- Date : 29 June 2012
- Venue : 1/F Function Room, HKPC Building, Kowloon Tong.
- No. of participants : 105

Fifth workshop:

- Title : “遠紅外線技術工作坊(五): 通過檢測認證達至品牌建立實戰分享”
- Date : 19 October 2012
- Venue : Lecture Theatre, HKPC Building, Kowloon Tong.
- No. of participants : 58

Overall speaking, the Project completed smoothly as planned.

Actual Benefits to SMEs/Enterprises

(Please indicate in clear, specific, tangible and quantifiable terms the benefits of the project and its contribution to enhancing the competitiveness of Hong Kong's SMEs / enterprises in general or SMEs / enterprises in specific sectors / assist Hong Kong enterprises in general or in specific sectors in developing brands, upgrading and restructuring business operations, and promoting domestic sales in the Mainland, in not more than 400 words.)

The project aims to support local SMEs to acquire reliability testing service for FIR products locally through the establishment of FIR test in Hong Kong. This objective has been achieved. Through the establishment of this new FIR testing service locally, SMEs enjoyed a relatively shorter lead time than overseas laboratories. During the project period, 824 tests were conducted and 67 SMEs benefitted in the new FIR testing.

A total of 479 participants joined and benefited from the 5 technical workshops, which helped them understand the new FIR test and the test requirements. Some participants (around 30 registrants) did not show up after registration although reminder email and follow-up calls were made before the events.

The FIR testing has also been introduced to industry through various presentation opportunities as well as to a number of visitors to HKPC where the testing facilities are located, thereby creating widespread industry awareness of FIR testing.

Milestones (in chronological order)

(# Please indicate if the milestone is completed (C), deferred (D) or not achieved (N). If it is deferred, please indicate the revised completion date. For those milestones which are deferred or not achieved, please also provide the reasons under item 2.4.)

<u>Milestone</u> (as set out in the approved project proposal appended to the project agreement)	<u>Original target completion date</u>	<u>Revised target completion date</u> (if applicable)	<u>Status</u> (C/D/N) #
(a) <u>Desktop research on the FIR testing technology</u>	01/06/2010 to 31/07/2010	01/11/2010 to 31/12/2010	C
(b) <u>Purchase and installation of a FIR tester.</u>	01/08/2010 to 31/12/2010	01/01/2011 to 31/07/2011	C
(c) <u>Organize 1st workshop</u>	01/10/2010 to 31/12/2010	01/03/2011 to 13/06/2011	C
(d) <u>Organize 2nd workshop</u>	01/01/2011 to 31/03/2011	01/07/2011 to 31/09/2011	C
(e) <u>Organize 3rd workshop</u>	01/04/2011 to 30/06/2011	01/10/2011 to 31/12/2011	C
(f) <u>Organize 4th workshop</u>	01/07/2011 to 30/09/2011	01/01/2012 to 31/03/2012	C
(g) <u>Organize 5th workshop</u>	01/10/2011 to 30/11/2011	01/04/2012 to 31/05/2012	C
(h) <u>-Machine test run -Develop FIR product reliability testing methods and procedures</u>	01/01/2011 to 31/03/2011	01/08/2011 to 31/10/2011	C
(i) <u>Provide FIR product reliability testing services for SMEs</u>	01/04/2011 to 31/03/2014	01/09/2011 to 31/08/2014	C

Marketing/Dissemination Activities (in chronological order)

(Please provide details of all completed and on-going promotional and/or dissemination activities for each of the project deliverables. Such activities may include advertisements, seminars, workshops, etc.)

<u>Date/ Period</u>	<u>Description</u>	<u>No. of beneficiaries (SMEs/Enterprises*)</u> *please delete as appropriate
8 April 2011	Presentation – “Far Infrared Testing Service Scheme for SMEs” during the Yue Hwa Environmental Protection, Energy-saving, Low-carbon, Emission and Waste Reduction and Greener Life Products Exhibition <i>(Non-project funded activity)</i>	N.A.
13 June 2011	Organize first workshop: Title: “遠紅外線技術工作坊(一):保健及治療器材在可靠性測試上的要求和能力”	123 (73 SMEs)
11 Jul 2011	Promote FIR Testing Services at the Open House of Hong Kong Productivity Council Reliability Testing Centre. <i>(Non-project funded activity)</i>	N.A.
Sept.-Oct. 2011	Promote FIR Testing Services via HKFIRA and HKETA Websites and networking activities <i>(Non-project funded activity)</i>	N.A.
26 Sept 2011	Organize second workshop: Title “遠紅外線產品測試”	115 (66 SMEs)
3 Oct. 2011	Promote FIR Testing Services through the distribution of HKPC weekly newsletter (News Flash) and distribution of promotion video by YouTube “HKPC 遠紅外線測試實驗室” http://www.youtube.com/watch?v=c76-a0EloXI&feature=channel_video_title <i>(Non-project funded activity)</i>	N.A.
Oct 2011	Promote FIR Testing Services via HKPC website <i>(Non-project funded activity)</i>	N.A.
13 – 16 Oct. 2011	Promote FIR Testing Services in Hong Kong Electronics Fair in Hong Kong Convention and Exhibition Centre <i>(Non-project funded activity)</i>	N.A.
9 Nov 2011	Organise technical visit and provide briefing for VTC to promote the FIR Testing Service <i>(Non-project funded activity)</i>	N.A.
16 Nov 2011	Interviewed by Hong Kong Economic Times to promote the FIR Testing Service <i>(Non-project funded activity)</i>	N.A.

19 Nov 2011	Interviewed by RTHK to introduce FIR technology and testing service <i>(Non-project funded activity)</i>	N.A.
17 Feb 2012	Organize third workshop: Title:“遠紅外線技術工作坊(三): 遠紅外線產品測試與標準”	78 (44 SMEs)
17 Feb 2012	Distribute FIR Testing Services flyers at the Open House of Hong Kong Productivity Council Reliability Testing Centre. <i>(Non-project funded activity)</i>	N.A.
20 Feb 2012	Disseminated FIR Testing Services promotional flyer in the seminar organized by HKPC. Title:“汽車及電子部：技術交流研討會” <i>(Non-project funded activity)</i>	N.A.
21 Feb 2012	Organise technical visit and provide briefing for IET to promote the FIR Testing Service <i>(Non-project funded activity)</i>	N.A.
13 – 16 April 2012	Promote FIR Testing Services in Hong Kong Electronics Fair in Hong Kong Convention and Exhibition Centre <i>(Non-project funded activity)</i>	N.A.
10 May 2012	Distribute FIR Testing Services flyers at the Open House of Hong Kong Productivity Council Reliability Testing Centre. <i>(Non-project funded activity)</i>	N.A.
29 June 2012	Organize fourth workshop: Title : “遠紅外線技術工作坊(四):發熱材料的應用及商機”	105 (55 SMEs)
21 Sept 2012	Distribute FIR Testing Services flyers at the Open House of Hong Kong Productivity Council Reliability Testing Centre. <i>(Non-project funded activity)</i>	N.A.
19 Oct 2012	Organize fifth workshop: Title: 遠紅外線技術工作坊(五):通過檢測認證達至品牌建立實戰分享”	58 (29 SMEs)
11 Jan 2013	Distribute FIR Testing Services flyers at the Open House of Hong Kong Productivity Council Reliability Testing Centre. <i>(Non-project funded activity)</i>	N.A.
13 – 16 April 2013	Distribute FIR Testing Services flyers at HKFIRA booth and HKPC booth during Hong Kong Electronics Fair (Spring Edition) <i>(Non-project funded activity)</i>	N.A.
29 Aug 2013	“香港優質 LED”廣州國際照明展團經驗分享會. <i>(Non-project funded activity)</i>	N.A.
20 Jan 2014	品味 LED X 品味 LED Seminar & Exhibition. <i>(Non-project funded activity)</i>	N.A.
20 Jan 2014	Promote FIR Testing Services through the distribution of	N.A.

HKPC weekly newsletter (News Flash)

<i>(Non-project funded activity)</i>		
13 – 16 April 2014	Distribute FIR Testing Services flyers at HKFIRA booth and HKPC booth during Hong Kong Electronics Fair (Spring Edition)	N.A
<i>(Non-project funded activity)</i>		
4 Mar 2014	Promoted FIR Testing Services through a Highly Accelerated Life Test seminar at Dongguan	N.A.
<i>(Non-project funded activity)</i>		
9-12 June 2014	香港優質 LED - 廣州國際照明展覽會"香港館"	N.A
<i>(Non-project funded activity)</i>		
1 Sep 2011-31 Aug 2014	FIR Testing Services	No. of test jobs conducted : 824 No. of local SMEs using the test service : 67
Total no. of beneficiaries :		479 (334SMEs)

Future Plan for Promoting the Project Deliverables

The project team will make use of the following channels to further disseminate and promote the deliverables to the user groups:

1. Promote the FIR test services through HKFIRA website and implementation agent website.
2. Regular networking events of associations.