

Quality Enhancement Grant Scheme

Progress Report

Project No. : 04/QEGS/09-10

Reporting Period : From July 2012 (month/year) to December 2012 (month/year)

Part A

Project Title : Business Technology Centre: An Initiative to Enhance Education in Business and Information Technology

Name of Grantee : Caritas Institute of Higher Education

Project Period : From January 2011 (month/year) to December 2013 (month/year)

Part B

Please use separate A4-size sheets to report the progress with regard to the following aspects:

1. Types and brief descriptions of Project activities held/completed during the reporting period (*the information may be presented in the form of a table*).
2. The dates, time, venues and number of participants / beneficiaries of Project activities held, and resources (e.g. equipment, manpower) used for the implementation of Project activities.
3. Project milestone(s) and deliverables attained at the end of the reporting period and evidence showing the attainment of milestones and deliverables.
4. The percentage, in terms of key tasks, of the Project completed at the end of each reporting period.
5. Project variation*, if any, during the reporting period, together with details and justifications

Signature: _____



Organization Chop: _____



Name of Authorized Person: Reggie KWAN

Name of Grantee Caritas Institute of
Organization: Higher Education

Position of Authorized

Person: Professor and President

Date: 31 January 2013

* A separate written application should be submitted to the Grantor for prior written approval.

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1. Project activities held/completed during the reporting period

Dates, time and venues	Brief descriptions of activities and resources used for implementing the Project *	Number and types of participants (if applicable)
September 2012	<p><u>Recruit technical staff/programmer</u> The Analytic Programmer reported duty in September 2012.</p>	
September 2012 – December 2012	<p><u>Develop applications/tools for case studies</u> Applications and tools are required to implement the solutions for the case studies. According to our research, we have identified the following software:</p> <ul style="list-style-type: none"> • <i>Microsoft Excel 2010</i> is a powerful tool which offers a wide range of statistical analysis functions. • <i>RapidMiner</i> is a Java-based program for data mining. • <i>R</i> is an open source programming language for statistical computing and graphics. <p>In addition to user friendly environment, they also provide a lot of powerful statistical analysis and data mining tools. Some software also supports programming. They are suitable for implementation of technical solution for business case. The screen captures and functions provided by the software are listed in <i>Appendix 1</i>.</p> <p><i>Microsoft Excel 2010</i> and <i>RapidMiner</i> provides user-friendly interface and a lot of build-in statistical and data-mining tools, hence, no further development is required. Training was provided to faculty members in December 2012.</p> <p>We have developed a number of useful tools based on <i>R</i> programming language, for example, estimating missing values using the regression line, finding mean squared error and normalized mean square error by using the regression tree or linear regression, etc. These tools can be used for implementation of technology-based solutions for the case studies. <i>Appendix 2</i> lists the tools developed in this project.</p>	35 faculty members

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September 2012 –
December 2012

Implement trial technology-based solutions for the case studies

Based on the software identified and the tools developed in this project, we have implemented the trial solution for the case studies by using the combination of techniques of regression, clustering, association, and decision tree.

Example of our solutions are listed below:

- We performed sales forecasting of departmental stores by using regression techniques at *Microsoft Excel 2010*. Sales forecasting is critical for better planning of resources in business environment.
- We divided data of real properties into groups using clustering technique by using *R* programming. Market segmentation is an important marketing strategy.
- We mined sales record of supermarket using associated rule technique at *RapidMiner* to identify the connected pairs of goods items to support cross-selling.
- We constructed a decision tree of credit rating data using *RapidMiner* to help commercial banks to evaluate the risk level of their applications of credit or loans.

The screen captures of the solutions implemented in this project are shown in *Appendix 3*.

December 2012

Provide training to faculty members about business technology

In the late December, we conducted a series of workshops on the business analysis. In particular, we focus on numerical analysis of business data using statistical tools and database. Information and photos of the training workshops are shown in *Appendix 4*.

35 faculty members

* Evidence showing the attainment of milestones scheduled for completion during the reporting period should be attached (e.g. photos, learning materials, webpage screens, promotion leaflets / posters, relevant reports, etc.).

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2. The percentage, in terms of key tasks, of the project completed at the end of the reporting period

Milestones scheduled for completion during the reporting period **	% attained	Remarks
<ul style="list-style-type: none"> ● Recruit technical staff/programmer 	100%	-
<ul style="list-style-type: none"> ● Develop applications/tools for case studies 	100%	-
<ul style="list-style-type: none"> ● Implement trial technology-based solutions for the case studies 	100%	-
<ul style="list-style-type: none"> ● Purchase equipment and software The Institute has purchased the following equipment: <ul style="list-style-type: none"> ◆ Computers with operating system for research and administration ◆ Computers with operating system for Business Technology Center ◆ Application server for business project ◆ LCD projectors 	100%	Completed in the period of January 2012 to June 2012
<ul style="list-style-type: none"> ● Set up the Business Technology Center The Business Technology Center was setup in Room 819. Interactive LCD Projector was installed. Computers with dual monitors were set up to provide computing services to students. The Center aims to enhance education in business and information technology. It provides faculty members and students an excellent information exchange platform and learning center on business technology. Trainings have been provided to faculty members (<i>Appendix 4</i>). The Center will provide project training and project supervision to the students. Some information seminars and workshops will also be held to promote education in business technology. ● Provide training to faculty members about business technology 	100%	Completed in the period of January 2012 to June 2012
Overall Project	80%	
** Please seek prior approval from the QEGS Secretariat if the project milestones cannot be completed at the end of the reporting period.		

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3. Project variation (a separate written application should be submitted to the QEGS Secretariat for prior written approval.)

Descriptions of variations (e.g. change of the project scope or duration, deferral of completion date, relocation of an amount exceeding 10% between items of expenditure in the budget)	Date of approval sought from QEGS Secretariat
Nil	

4. Financial position as at the end date of the reporting period

Expenditure items	Approved budget (a)	Committed or actual expenditure (b)	Balance [(a)-(b)]
a. Manpower	972,000	329,217	642,783
b. Equipment / facilities	472,000	469,291	2,709
c. Services	-	-	-
d. General expenses	100,000	46,849	53,151
e. Others	-	-	-
Total	1,544,000	845,357	698,643
<i>Project Income (if any)</i>			<i>0</i>
<i>Total Balance</i>			<i>698,643</i>