CIB Student Chapters

The Hong Kong Polytechnic CIB Student Chapter winner of the "Gyula Sebestyén Award 2003"

Introduction

The CIB Endorsed Student Chapter of the Department of Building and Real Estate, The Hong Kong Polytechnic University (PR China) presented the winning proposal for the "CIB Gyula Sebestyén Award 2003".

Their proposal was submitted in collaboration with the CIB Student Chapter at Tsinghua University Department of Construction Management, Tsinghua University (PR China) as the Co-investigator. Congratulations to HK Polytechnic and Tsing Hua! The entire proposal is presented in the following:

Title of Project: Development of a Web-Based Collaboration System for CIB Student Chapters

Project Background

The number of CIB student chapters is expected to continuously increasing and more new CIB student chapters will be established around the world. It is observed that most of the CIB student chapters do not have their own website. In addition, the communication and information exchange between student chapters, which are mainly based on email, have not been done effectively due to the geographical limitation.

The HKPolyU Student Chapter of CIB has successfully developed a web-based membership management system in 2002. This system aims to facilitate the management of over 300 members' information and to improve the communication between members in our university. It also provides a set of functions such as online registration for the Chapter's activities and broadcast messages to members to assist the administration in our chapter. The system is concluded to be extremely useful in facilitating communication and assisting administration work in our student chapter.

In order to break the geographical barrier, a web based collaboration system is suggested to be developed for enhancing the communication, information exchange, and collaboration between the chapters in Hong Kong, UK, China or other countries.

Project Significance

The proposed system would be used as a media to share research information so as to enhance cooperation between members from different student chapters. It is anticipated that the use of a common information system for all student chapters can improve the efficiency and effectiveness of information retrieving and sharing, and can also promote communication between student chapters. Consequently student chapters can know each other better and the momentum of cooperation and interaction between student chapters may increase and eventually benefits research of the postgraduate students.

Aim and Objectives

The aim of this project is to improve the collaboration between CIB student chapters through developing a web-based collaborative system and the objectives are:

- To facilitate information exchange between and within CIB student chapters
- To promote communication and collaboration between and within CIB student chapters
- To support the administration of CIB student chapters

This project will development a Web-based system for all the CIB student chapters to manage and share information relating to student chapters' activities, personal information and research interest of members, past and current postgraduate research projects in the student chapters' host department, etc. It is anticipated that the use of a common information system for all student chapters can improve the efficiency and effectiveness of information retrieving and sharing, and can also promote communication and collaboration between the student chapters.

The Proposed System

The proposed system will be developed based on our membership management system. Figure 1 depicts the architecture of the system. The system will be implemented in Windows 2000 Server with Internet Information Server as the Web engine. The Web-based applications will be written in Active Server Pages (ASP) language and Windows SQL Server will be used as the database engine. All CIB student chapters can access the Web applications through Internet by HTTP and FTP. The system will be designed to provide maximum information sharing by storing structured information in database, and at the same time keeping the uniqueness of different student chapters by allowing them to build their websites using their own style.
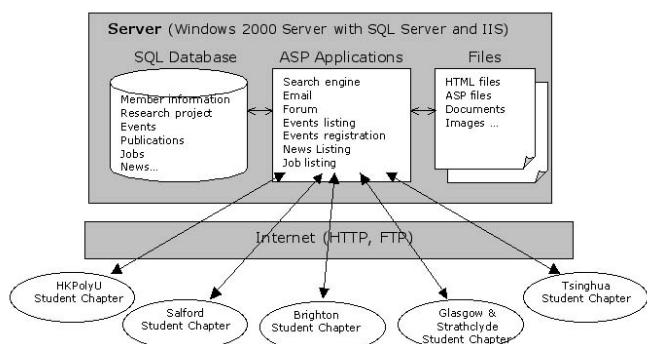

Figure 1: System architecture of the proposed system.

Information that will be stored in the system is listed in Table 1. Except the student chapter's information, which will be stored in HTML or ASP files format, the member's information, events, news, and jobs information will be stored in a relational database structurally. Web-based interface will be provided for inputting information into database. Table 2 lists and describes the Web-based application of the proposed system. The applications include membership administration, search engine, email, events administration, forum, news listing and job listing.

Table 1: Information in the proposed system.

Information	Description
Student chapters' information	The executive committee, background of the chapter, contact information, newsletter, etc.
Members' information	Personal particulars including contact information, research interest, current or past research project, publications, working papers, etc.
Events	Meetings, workshops, seminars, conferences, competitions and recreational activities.
News	News of the student chapters, industry and institutions.
Jobs	Jobs opportunity from industry and institutions.

Table 2: Applications of the proposed system.

Application	Description
Membership administration	Management of members' personal particular and membership information.
Search engine	Different search engines for searching all information stored in relational database.
Email	An email server for sending email to members within a student chapter or in other student chapters.
Events administration	Management of events listed in the system and provision of online events registration for members within a student chapter or in other student chapters.
Forum	A forum for members in all student chapters to discuss research related topics.
News listing	Management of news listing by student chapters individually.
Job listing	Management of job listing by student chapters individually.

Methodology

The project will start with distributing questionnaire to all CIB student chapters to seek their opinion on the information and applications that should be provided in the proposed system. After collecting and evaluating all the opinions provided by the student chapters, system interfaces design will be carried out. All CIB student chapters will then be invited to comment and give opinion on the interfaces design. Coding and programming will start after confirming the system interfaces. The last stage will be system testing and implementation.

Project Plan

The project will be finished in ten months as shown in Table 3.

Table 3: Project Plan.

Task	Duration (Month)
Distribute, collect and analyze questionnaire	2
System interface design and modification	2
Coding and programming	4
System testing and implementation	2

Conclusion

It is expected that the first module of the project will be available before the end of March 2004, hopefully for immediate use.

If you have comments or suggestions on the project, please contact:

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