CIB NEWS ARTICLE

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CIB Endorsed Student Chapters

Winner CIB Gyula Sebestyén Student Chapter Award 2007

by
Timmy, FAN Shichao
President of the Hong Kong Polytechnic CIB University Student Chapter

Title of Project: Integration between SPIRIT and Young Researchers Network (YRN) for Enhancement of Collaborations among the CIB Student Chapters

Investigator: The HKPolyU Student Chapter of the CIB Department of Building and Real Estate, the Hong Kong Polytechnic University

Project Background

SPIRIT (Students' Portal for Ideas & Research Information Transfer) is a system built by the Hong Kong Polytechnic University CIB Student Chapter in 2003, which is also the outcome of the proposal that won the CIB Gyula Sebestyén Student Chapter Award in 2003. The aims of this system are to facilitate information exchange, and promote communication and collaboration between and within CIB student chapters. However, the system is not widely used by members of other student chapters. For further improvement of the existing system for better performance, our members and other users have suggested the following aspects to be improved:

▪ A better technology has been published by Microsoft to develop web-based systems, named Windows SharePoint Service, which can make the system more user-friendly.
▪ Due to the limitation of budget, some useful functions are not provided. E.g., the "Forum" function which aims to provide a platform for members to discuss research topic is not provided.
▪ The system cannot automatically create a website for the new chapter. Since there are still many chapters that do not have their own websites, the system should provide an easy way for them to build their website.

The above factors are the main areas that the SPIRIT can achieve better performance by enhancing the communication, information exchange, and collaboration between the chapters. In order to get the full use of SPIRIT, it is time to make necessary improvement to SPIRIT to better improve the communication between chapters.

Besides, we also want to integrate the SPIRIT with the Young Researchers Network (YRN), the winner proposal of 2006 CIB Guyla Sebestyén Award which also aims to increase collaboration and exchange between chapters. We will "borrow" the concept of two tracks proposed by YRN: a virtual track and physical track. In YRN, the virtual track is established by the use of Yahoo group to create a global e-community of young researchers, while the physical track is to find regional opportunities of initiating joint activities by chapters and young/PhD researchers in the built environment within Europe. Hence, the possible integration between SPIRIT and YRN will be in two aspects: in virtual way, we will co-operate SPIRIT with YRN to encourage shared working, information sharing or co-writing papers; in physical track, we can "copy" the concept of YRN to find the opportunities of organizing activities between chapters and young/PhD researchers in Asian.

Objectives

To be summarized, the objectives of this proposal are:
▪ Re-develop the SPIRIT System by using Microsoft Office SharePoint Server 2007, a new platform provided by Microsoft for application development, typically to facilitate the development of web-based program for information sharing and document collaboration.
▪ Integrate the SPIRIT System with the YRN concept in order to get the full benefits in two ways: a virtual track and a physical track.

- Attract new chapters by promoting SPIRIT and YRN.

Project Significance

The number of CIB student chapters is expected to continuously increase 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. Both SPIRIT and YRN are aimed to improve the collaboration between chapters worldwide, and both systems have been started and worked for a while. Each system has advantages and disadvantages. The proposed integration aims to integrate the both system to get the full use of the resource. In virtual track, both systems can be used as a media to share research information so as to enhance cooperation between members from different student chapters. The SPIRIT can also support the administration of CIB student chapters by providing an easy way to facilitate chapters to build there own website. In physical track, SPIRIT will focus on the Asia area, while YRN mainly focus on Europe. Figure 1 depicts the potential integration. It is anticipated that the integration of both systems 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.
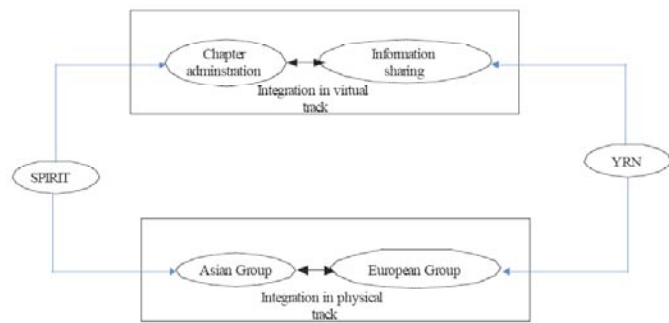

Figure 1: Proposed Integration between SPIRIT and YRN

The New System

The new SPIRIT system will be developed based on Microsoft Office SharePoint Server 2007, which serves as a platform for application development, typically to facilitate the development of web-based program for information sharing and document collaboration. Microsoft Office SharePoint Server 2007 is an integrated suite of server capabilities that can help improve organizational effectiveness by providing comprehensive content management and search facility, and facilitating information-sharing across boundaries for better business insight. Office SharePoint Server 2007 supports all intranet, extranet, and Web applications across an organization within one integrated platform, instead of relying on separate fragmented systems. Additionally, this collaboration and content management server provides IT professionals and developers with the platform and tools they need for server administration, application extensibility, and interoperability. With the help of SharePoint service, the new SPIRIT can provide a simple, familiar and consistent user experience to all CIB chapters.
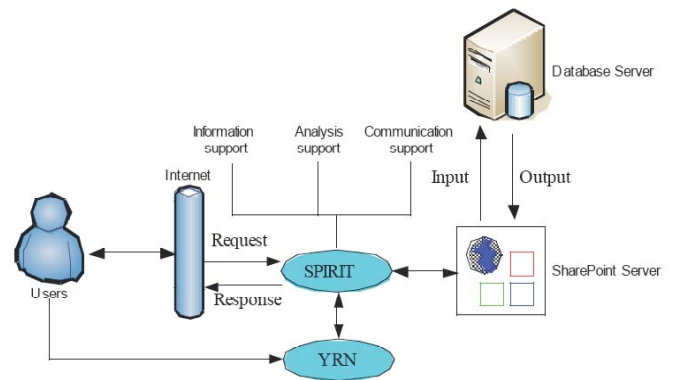

Figure 2: System Architecture

Figure 2 depicts the architecture of the system. The new system will be implemented in Windows 2003 Server. 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. The new system will provide information support, communication support and analysis support, which are shown in below.

Supports Provided by SPIRIT

Support: **Information**
Functions:
- Document library
- Discussion board
- Email notification
- Search engine

Benefits:
- Upload/download information
- Disseminate information
- Automatic email notification
- Information search

Support: **Analysis support**
Functions:
- Electronic voting tool

- Questionnaire survey

Benefits:
- Collect opinions across all the chapters
- Virtual survey on certain issues

Support: **Communication support**
Functions:
- Virtual meeting room
- Discussion board

Benefits:
- Virtual meeting and discussion

Methodology

The SPIRIT system will be re-developed using Microsoft office SharePoint Server 2007 first. All the data will be transferred to the new system. All CIB chapters will be invited to test and implement the new system. CIB chapters in Asia, will be invited to promotion activities, e.g. research seminar, exchange meetings to promote SPIRIT and improve regional collaboration. Regional chapter groups in Asia and Europe can be interconnected through YRN and SPIRIT through Virtual collaboration.

Award

The CIB Award consists of financial contribution in the magnitude of Euro 3500, of which Euro 1000 will be donated by the University of Salford.

Contact Information

Timmy, FAN Shichao
President at the Hong Kong Polytechnic University Student Chapter of CIB
Tel: +852.2766 4307
Email: tim.fan@polyu.edu.hk