

DEVELOPMENT OF THE CAADRIA ABSTRACT REVIEWER SYSTEM

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Abstract. In this paper, I would like to present the method and system that I developed in the CAADRIA 2005 reviewer system. Along with the background and purpose of this system, I would like to show the problems that arose in the process of constructing and operating the system, that is to say, in practical application, and this will be followed by a description of the subsequent tasks for future reviewers of the system.

1. Background and Purpose

CAADRIA (Computer Aided Architectural Design Research in Asia) started in Hong Kong in 1996 and will hold its tenth conference in India in the year 2005. In previous years it was held in Taiwan, Japan, Singapore, Australia, Malaysia, Thailand and Korea.

Before 2004, the rules regarding paper contribution were those of the host country and it was usually the host country that decided the reviewers and made the final decisions. In order to solve such unreasonable problems, CAADRIA made it a rule that paper abstracts would be reviewed by the CAADRIA Paper Selection Committee. For this reason, a system that enables and manages on-line review was needed urgently.

In line with these objects, a web-based reviewer system was recently developed. The system was applied to CAADRIA 2005 and the abstracts were reviewed by the committee. Tomas Kvan, a professor at Hong Kong University, assumed the presidency as of 2005.

It is planned that the system will normally be operated in each host country, but

during CAADRIA2005 it will be operated by its developer only as bugs or other troubles may arise in initial use.

This paper focuses on introducing the system's development method and specifics, and on presenting the problems shown in practical application and subsequent assignments.

2. Development Method

The CAADRIA Reviewer System was developed referring basically to the reviewer system of eCAADe (Education and Research in Computer Aided Architectural Design in Europe). The following shows the reviewer system of eCAADe.

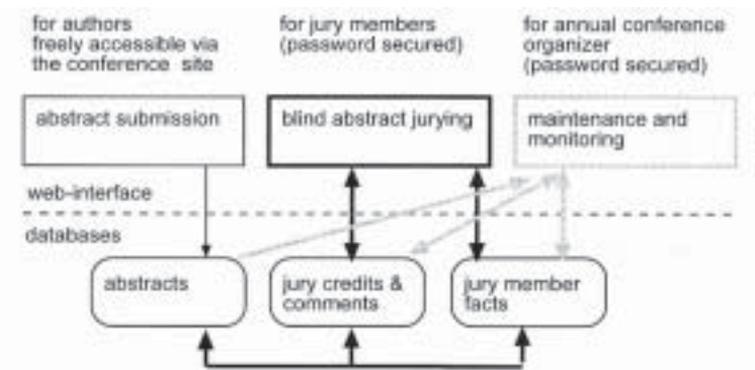


Figure 1. Construction of eCAADe Reviewer System (B.Martens, CAADRIA2004).

This system was developed based on the basic system of eCAADe. In particular, it aimed at creating a general-purpose, remote-controlled system.

In order to realize the general purpose, PHP and MySQL were adopted. In the early days of development, Window 2000 server was used as the OS. However, currently it can be applied to any PHP or MySQL environment.

3. Constituents of System

3.1. ABSTRACT SUBMISSION MENU

To contribute an abstract, the user should input the following:

Author[s], Contact person [Required, just one name], Contact E-mail [Required], Password [Required, max 16 characters], Who will present the paper if accepted?, Organization, Country, Abstract title [Required], Abstract file data [Required],

Keywords [Required] and Statement on submission [Required].

After this information is successfully registered, the system automatically notifies the user and manager of the registration through e-mail.

If incorrect entries are made, the user can modify the abstract through the e-mail address and password registered initially. The system passes on notification of modifications in the same manner.

An author whose abstract is accepted can contribute the abstract after logging in using an e-mail address and password.

3.2. MANAGER MENU

The manager functions as the controller of every site.

It is composed of the Reviewer's ID setting (assigns reviewers), Reviewer Selection (decides the reviewers of abstracts) and Review Status (observes the process of review). In addition, since there are menus that can check the progress of abstract contribution and review, the whole process can be totally managed. Also, the author of the abstract can send e-mails to a large number of people simultaneously.

Moreover, each author can be notified of the final result concurrently with any related criticism.

The figure shows two screenshots of a web application. The left screenshot is the 'Abstract Submission' page, which contains several form fields for entering abstract information, including title, author, and keywords. The right screenshot is the 'Manager' page, which displays a table of abstracts with columns for ID, Title, and Reviewer. The table contains multiple rows of data, including abstract IDs and their corresponding titles.

Figure 2. Abstract submission page (left) and Manager page (right).

3.3. REVIEWER MENU

The user selected as a reviewer will receive an email from the president of the CAADRIA Paper Selection Committee. This email will contain an ID and a password. Then, the user should notify the president whether s/he can review abstracts or not.

If possible, the reviewer should input personal information after connecting to the appointed site. Input information contains Keywords [Specialized field], Organization, Country, etc. with the object of selecting the optimum reviewer for each abstract.

After the manager has assigned reviewers who will take charge of perusing each abstract, each reviewer can enter the review menu using his/her ID and password. After connecting to the menu, the reviewer can open the abstract that is the subject of review and can input results and criticism. The reviewer can modify this information at any time by logging in with his/her ID.

3.4. CAADRIA PAPER SELECTION COMMITTEE MENU

The result of review is finally decided by the CAADRIA Paper Selection Committee, synthesizing each reviewer’s opinion. This menu was developed to help the committee make the final decision regarding each reviewer’s opinion. The

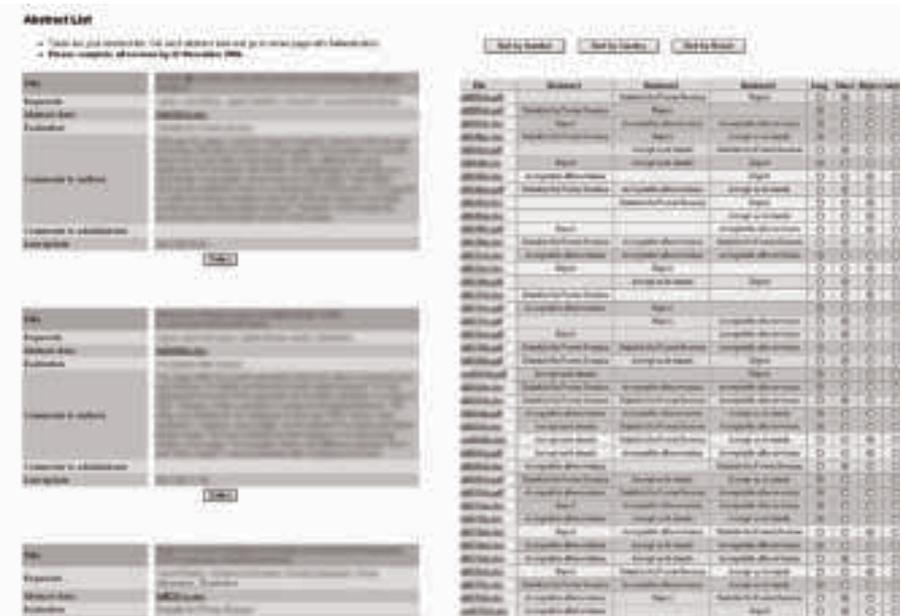


Figure 3. Reviewer page(left) and CAADRIA Paper Selection committee page(right).

committee members can make the final decision, based on the opinions of three reviewers, and can read the related abstracts through this system.

4. Problems Detected in the Process of Applying the Reviewer System

As previously stated in Chapter 3, the reviewer system was applied to CAADRIA 2005. Halfway through, the system exhibited various problems and it was advanced simultaneously with repeated complements. Nevertheless, it was difficult to correct the problems shown in the database design while the system was being operated. These problems are scheduled to be corrected after CAADRIA2005. In this chapter, the problems detected in the process of application will be introduced briefly.

The most serious problem that was detected in the process of Abstract Submission was that server accesses were concentrated on a certain date. By observing the following table, on the left, it can be seen that the accesses are focused on the day of abstract registration (based on Japanese time) and the next day. Actually, the abstracts contributed at various times over a week account for 80 percent of all abstracts. As a result, a service error was caused.

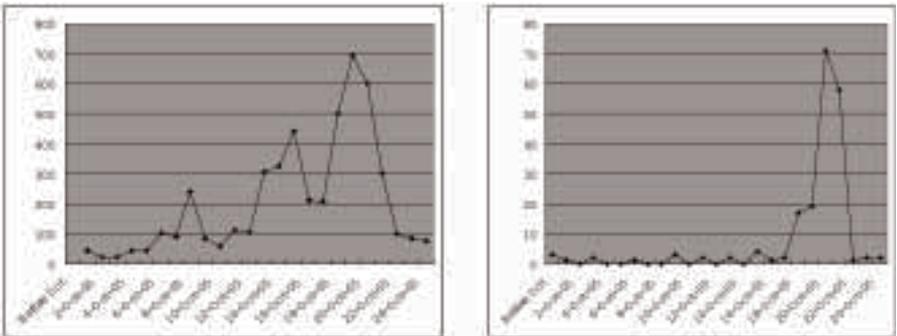


Figure 4. Server Access and Abstract Contribution on Dates.

Also, there were cases where some mail servers treated e-mails that were automatically forwarded by the system, as spam emails. Moreover, these emails were rejected by the anti-spam software. Since these problems could not be solved during CAADRIA2005, the emails were sent temporarily through a manual mailing list. It is expected that these problems will be solved before CAADRIA2006.

5. Subsequent Tasks

The present reviewer system was introduced for the first time during

CAADRIA2005. Although it experienced problems during this time, it was successfully operated up until the final contribution. Thanks to this system, the CAADRIA Paper Selection Committee could make the final decision while the host country could concentrate on preparing the conference.

However, the system exhibited only its basic functions and is still insufficient. Granted that the functions that are being normally operated, those should be more advanced henceforward.

In particular, the system needs to classify full papers and short papers, and to retrieve the abstracts contributed by each authors. At the same time, database security should be partially supplemented.

It is intended to correct the problems detected so far before CAADRIA2006. Likewise, all sources will be opened and will be handed over to the next host countries, aiming to develop a system suitable for each country.

We are grateful to Prof. Tomas Kvan, president of CAADRIA Paper Selection Committee and Anand Bhatt, chairman of the CAADRIA2005.

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