A Prototype of Advanced Management Information System for Conferences

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ABSTRACT

This paper aims to describe the experience accumulated in building a sophisticated management information system for conferences. The accumulated experience is built over 6 years and it is implemented in real life where six editions of the same conference were conducted over six countries. After that, the authors suggested a framework for a successful management system that keeps track of all data and processing emails in an efficient and accurate way. The implementation of such framework results in reducing the work time and gives more accurate information to the researchers.

Keywords

Conferences, reviewing, publications

1 INTRODUCTION

As we know, conferences represent an important atmosphere to bring people all over the world together in one place where they can discover and share the same passion and interests. In addition, it gives opportunities to the researchers to exchange ideas, research and establish further communications [2] [3].

Many people think that conducting a scientific conference is an easy task. However, running a conference is incredibly hard, much more than you can possibly imagine. Statistics showed that on average for every 1000 visitors for any conference website, only one of them is interested. Thus, attracting the attention of people is a hard task and the most effective factor of the success of any conference[4] [5]. The statistics are confirmed from the cookies that some conferences added to get statistics. See Figure 1.

Running a conference requires to work smarter (and not harder) several months before it for preparations through conference management system which is an online application that will help to take care of the details such as: sending invitations to attract scientific research papers, reviewing, notifications, finalize the procedure like submitting final camera ready and copyrights, collecting registration, preparing the proceedings which will contain the final papers that will be published, and finally evaluating the success of the conference.

To run a successful conference, many factors must exist. These factors must be plugged into the conference management system. In addition, some factors must be avoided. A detailed description of such factors is listed later with more details.

The organization of this paper as follows: Section 2 describes the environment of conferences. Section 3 describes the tools for any conference management system. Section 4 describes the integration of a conference
management system with different components. The section 5 is the performance results and section 6 discussion and section 7 is a conclusion.

2 THE ENVIRONMENT OF CONFERENCES

With the spread of the internet and the spread of the social media, several challenges appear for conducting any scientific conference. The challenges include:

1. Funding and Budget
2. High competition. This is resented by the publicity process which should reach right persons and the fact of the existence of hundreds of conferences yearly in the same scope.

To overcome these challenges, the following factors must exist in order to cope with the rapidly changing environment. This includes:

1. Be organized and allocate tasks to the committee and the managers of the conference.
2. Response time must be fast to deal with the problems from the possible attendees with registration or transportation or visa issues as soon as possible.
3. Quality of the research. For example, checking for Plagiarism.
4. Good tracking system for reviewing.
5. Good indexing after publications.
6. Selecting high quality journals for the best selected papers of the conference.
7. Approach transportation and accommodation facilities for possible special conference rates.

In addition, the conference management system must avoid factors that degrade its performance [6] [7] [8]. These include: 1) Phishing by sending some fake papers, and 2) Not serious reviewers.

3 TOOLS FOR ANY INFORMATION SYSTEMS

In this section, we are going to describe the tools for any successful conference management system. These include:

1. Smart sheet: This enables managers to automate the collaborative work of the conference managers within a platform trusted by the world’s most productive companies. The platform provides with an area to assign tasks to all the managers who handle all the tasks of the conference.

![Smart sheet template](image)

Figure 2. Smart sheet template

2. Automation of paper submission by using the conference management system. Therefore, authors will be able to submit their research papers online without the help of the workers who work on the conference [1]. Figure 3 gives an example of this.
Good automated, reviewing system with grades for each paper. Figure 4 gives an example of this.

Automated system for publicity. Please see Figure 5 and 6. Figure 5 is the interface of a PHP program that is used to send 500 emails every hour from a database without the sinterere with human.

Automated system for common documents (acceptance, receipts, and certifications). Please see the following screen shot.
6. Online registration, which saves the time and ensures a secure, reliable registration process for the attendee/participant.

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration with CD proceedings</td>
<td>0</td>
<td>US $550.00</td>
<td>US $0.00</td>
</tr>
<tr>
<td>Registration with CD proceedings; provided that you create a bio by IDIWC unedited work on your personal email; university shared work homepage</td>
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<td>US $490.00</td>
<td>US $0.00</td>
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<td>US $180.00</td>
<td>US $0.00</td>
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<td>Dual with (conference kit, meals, fax, and attendance certification)</td>
<td>0</td>
<td>US $590.00</td>
<td>US $0.00</td>
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</tbody>
</table>

Figure 8. Online Registration

7. Automated conference schedule. Figure 9 shows the example.

Figure 9. Automated conference program

4 INTEGRATION OF INFORMATION SYSTEM COMPONENTS

The Figure 10 shows the overall framework for the system that integrated with the database and the staff.

Figure 10. Overall system integration with the database and the staff.

5 PERFORMANCE RESULTS

The existing prototype listed in Figure 10 saves time. The reason is that it sends personalized email, but it goes as bulky and one shot. Following is one figure.

Figure 11. Bulky emails go personalized where you can send any number of emails in one shot.
This save in time also comes from other sources such as sending acceptance automatically.

The second contribution is the accuracy of recording the grades for the reviewing of each paper. The reviewing is recorded accurately as you can see in the following figure.

![Figure 12. Sample Grade and Reviewing [1]](b)

### 6 DISCUSSION

Any conference suffers from problems that cannot be solved easily. The reason is that the control of these problems is outside the management of any conference [5]. Among these problems and their suggested solution in this paper are:

- **Delay in doing the tasks.** It is observed that most researchers submit their papers in the last week of the submission date. This creates unbalanced load on the reviewing process and on the work. The solution is that the management must be ready for last minute submission by processing tasks upon their arrival.

- **Reviewers who are not serious.** Those reviewers are late in submitting their reviewing or they did not read the paper carefully (in particular third world reviewers). Examples of these are in the Figure 13. The solution is to discard these reviewing.
7 CONCLUSION

The presented framework was implemented successfully in DICTAP conference, which has been conducted until today in 6 countries. The framework proved its efficiency and effectiveness due to the high number of registered papers in this conference. The accumulated experience with the suggested framework can be further implemented in just one big system.

REFERENCES

1. Open conference website.
2. The Keynote Guide to Planning a Successful Conference by Cathy Key.