Design and implementation of online Conference Management System

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Abstract

In this paper, a design and implementation of online conference management system (OCMS) is achieved. The proposed System provides a complete functionality for conference registration, paper submission, peer review, decision making process, preparation of conference proceedings, and submission of final papers.

OCMS enables interaction of all participants in various roles such as corresponding author, reviewer and Administrator. Security features has been implemented (using SHA1 function) to keep Integrity of information in the system. The architecture of the system and its internal modular structure is presented.

OCMS has been implemented using several internet programming languages such as HTML, CSS, JavaScript, PHP and MySQL.

Dreamweaver (a builder package) was used to design a web page, Sessions (a small temporary file in server) was used to design user profile for private activities to each user. CMS was tested using WAMP server.

Keywords: conference management system, php, ysql, JavaScript, paper submission

1. Introduction: Traditional conference management depends on manual operations. In the mid 90s, email became a reliable and cost-effective way to send binary file attachments and it opened the possibility of sending papers electronically instead of by “snail” mail [2]. However, when the number of paper submissions increases, the task of dealing with these submissions manually becomes tedious. This often results in problems such as collecting the wrong author’s information, neglecting some submissions and slowing down the process of conference organization. In the last few years, several Web-based conference management systems have been developed and used by many international conferences. They have implemented such functions as publishing conference information, handling paper submissions and reviews. These functions provide reliability and security and speed up the process of conference organization.

2. Objective

OCMS Enables Author to online submissions of abstracts (and, later on, full papers) and online reviewing of contributions. When the Author has been registered the activation code has been sent by the system to his/her email address to allow him login on his/her account after send the activation code in the link that associated with it in the email message. Security features has been implemented to keep Integrity of information in the system.

3. System design:

3.1 Software Requirements: The website was designed and implemented using the following software:

3.1.1 Dreamweaver (a builder package) was used to design a web page.

3.1.2 WampServer that contains Apache server, MySQL Database Management System and PHP.

3.1.3 HTML, an abbreviation of (Hypertext Markup Language), it is the markup language for web pages. [6]

3.1.4 PHP is a general-purpose scripting language for server side; it is especially suited for web development and can be embedded into HTML. It generally runs on a web server, taking PHP code as its input and creating web pages as output. [9].

3.1.5 MySQL [Relational Database Management System (RDBMS)]: It uses a standard form of the well-known SQL data language. It is released under an open source license, and is available for free. It works on many operating systems, and with many languages. PHP ships with a number of functions designed to support MySQL databases [10].
3.1.6 JavaScript is a scripting language used to enable programmatic access to objects within other applications. It is primarily used in the form of client side[8].

3.1.7 Sessions (a small temporary file in server) was used to design user profile for private active (ities to each user.

3.1.8 CSS (Cascading Style Sheets) is a style sheet language used to describe the presentation (that is, the look and formatting) of a document written in a markup language[7].

3.2 System Block Diagram: The main component of propose system is administrator, Reviewer and User (Author) as shown in figure (1) below.

![System Block Diagram](image)

Figure (1) System Block Diagram

3.3 Database Design: Is concerned with the identification of tables that used in the system and the relationship between these tables and their attributes[ the database is called Management and its have three tables as shown in figure (2) below.

![Database Management's Tables](image)

Figure (2) shows database management’s tables

3.2.1 Conferences Table: which contain the information about the conferences that supported by the website, as shown in figure (3) below.

![Conference Table Structure](image)

Figure (3) shows the conference table structure

3.2.2 Papers Table: which contain the information about the attached papers as shown in figure (4) below.

![Papers Table Structure](image)

Figure (4) shows the papers table structure

3.2.3 Users Table: which contain the information about the users (Authors), as shown in figure (5) below, it include the following fields:

![Users Table Structure](image)

Figure (5) shows the users table structure

3.4 Home Page Design

At the beginning when a nonregistered user visits the website or before logged in on pre-
registered account the following page would appear figure (6)

Figure (6) the Home page

4. System organization chart & implementation

4.1 Administrator organization: Figure (7) below show the basic job of the system Administrator:

**Administrator**

- Create new user
- Conference update
- Edit account
- View papers
- Home page
- Error handling

Figure (7) Admin organization chart

when the administrator wants to delete a paper he should submit the deletion confirmation as shown in figure (8) below.

Figure (8) confirmation form for delete paper

- The administrator shows all users with their information as shown in figure (9) below.

Figure (9) view user’s link page

The administrator able to create an advertisement to particular conference by entering the information of that conference in the appropriate forms as shown in figure (10).

Figure (10) create a conference forms.

Also when the administrator create the conference should assign at least one reviewer to that conference, when reviewer assignment made an E-mail automatically sent to each assigned reviewer as a notification as shown in figure (11).

Figure (11) Reviewer assignment E-mail
Update a conference Link: show all conferences available on the web site as shown in figure (12), to update a particular conference Click on that conference and the form would appear as shown in figure(13) the administrator can change the conference date and group of reviewers.

![Figure (12) update a conference link page](image1)

When the user created the following E-mail send to him as shown in figure (15). The message contain the activation code and the temporary password for that user.

![Figure (15) create user E-mail message](image2)

4.2 Reviewer organization:: The reviewer can view the paper from Conference setup link then he makes his decision to accept a paper according to four conditions:

a-The originality of the paper.

b-The subject of the paper is up to date.

c-The paper within the pivots of the conference.

d-The paper not published previously.

Then he sends his decision to the Administrator, who tells the author the paper status by email. Figure (16) show the activity of the reviewer.

![Figure (16) Reviewer organization chart](image3)

- The administrator can create a user, reviewer and administrator by typing the following information first name, last name email and select user type (Administrator, reviewer and user) as shown in figure (14).

![Figure (14) create user page](image4)

Figure (13) Edit conference forms.

- The administrator can create a user, reviewer and administrator by typing the following information first name, last name email and select user type (Administrator, reviewer and user) as shown in figure (14).
The reviewer view conference through Conference setup link as shown in figure (17) below.

Figure (17) conferences link page

If the reviewer not assigned for the conference the link would make the reviewer able to participate in the conference as shown in figure (18).

Figure (18) participate a conference form.

The admin send to the reviewer to tell him the decision to assigned him as a reviewer to the conference as shown in figure (19) below.

Figure (19) papers for reviewer (with status pending).

After the viewer have decided an email is sent to the Author to notify him/her about the status of their paper as shown in figure (20) below.

Figure (20) reviewer decision E-mail

4.3 Author organization: Figure (21) below show the activity of the user (author)

Figure (21) Author organization chart

Register Page: to register a new user should enter the full and correctly his/her information in the forms appear in the register page as shown in figure (22) below. When the user has been registered the activation code has been sent by the Admin to the user by his/her email address to allow him login on his/her account as shown in figure (23) below.
6. Future works

1. Enables Author to publish his/her paper over the website.
2. Make the web site include a recorded conferences and available for download by the users.

References.

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