

## PROJECT OF INFORMATION SYSTEM FOR THE NEEDS OF LOGISTIC CONFERENCES ORGANIZED BY DEPARTMENT OF LOGISTICS

Petra Plešková

VOLKSWAGEN SLOVAKIA a.s., Priemyselná 1/9042, 03861 Martin, Slovak Republic,  
petra.pleskova@student.tuke.sk

**Keywords:** information logistics, conference, projecting, internet conference system, programming

**Abstract:** In the modern world there is a huge demand for exchange and sharing of information. Members of Department of Logistics at Technical University of Kosice are therefore participating in many international conferences. In order to be able to create and organize scientific conference they needed to create a web conference system. This information system combines the advantages of available conference systems and the requirements of Department of Logistics. It incorporates features such as information elements, sections for the purpose of advertising, marketing and propagation and elements for financial flows. Web conference system with the name *ConfUL* solves the difficulties that have appeared within organization of scientific conferences and ensures optimal informational and financial flows. Users of *ConfUL* system are allowed to add and share scientific articles, search for instructions and information about the upcoming conferences and many more. In this article we present the basic functions of web conference system *ConfUL*.

### 1 Introduction

Conferences are closely bound up with activities of scientific organizations and institutions. Conferences provide for employees and students of these organizations and institutions an effective and attractive introduction of their scientific work. Department of Logistics uses conferences for publishing new knowledge and exchange of information with other organizations. However, organization of conference without appropriate information system can be very difficult.

Organization of conferences requires maintaining of numerous information flows between the organizers and the participants of the conferences [1]. These information flows connect organization terms, financial or marketing information. To ensure, that such big amount of different information will always reach the right person in the right time is very challenging, especially when the conference will host many participants from different countries [2]. Modern technology makes the organization significantly easier thanks to web conference systems. Online we can find a whole variety of conference systems, but most of them are limited or charged and they do not suit our needs. We have analysed available conference systems and created our own web conference system with features that meet the demands of Department of Logistics.

Organization of conferences requires many information flows between organizers and participants. Except for basic information about conference we also need to specify information about accommodation for participants, payments, papers for conference, instructions for authors, program, information for sponsors and many others. This exchange of information must be fast, actual, reliable and mutual [3].

Usage of web conference system can bring us the following advantages: reduction of organization exactingness, fast information flows between organizers

and participants, space for unlimited quantity of new conferences, elimination of mistakes caused by a human factor, elimination of financial and time losses and many others.

### 2 Parts of web conference system

Basic elements of web conference systems are human part of the system, functional part, software and information technologies [4]. On the lower levels of hierarchy can be these elements considered as independent systems which consist of other elements as shown in Figure 1.



Figure 1 Parts of web conference system

Human part of the system can be divided into programators, administrators of the system and users. Also users can be divided into organizers, reviewers, authors and participants on lower level of hierarchy. Each one of these roles has different access to functions and permissions (adding, approving, erasing of the articles, users and conferences, changing the basic information about

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conferences or adjusting the system itself). The rights of the roles are discussed separately in the chapter number 3.

Each web conference system can be created by using different software and programming approach. The most common is the combination of programming language PHP and database MySQL. This software can be downloaded freely and have allowed us to create the basic system structure. The functions of the system are linked

with the database using the PHP programming language [5].

The functional part of the system provides the functions for users, that depend on individual conference systems. Each system offers a few special functions in order to distinguish itself from the others, but there are also common basic functions for each system, that are shown in Figure 2.

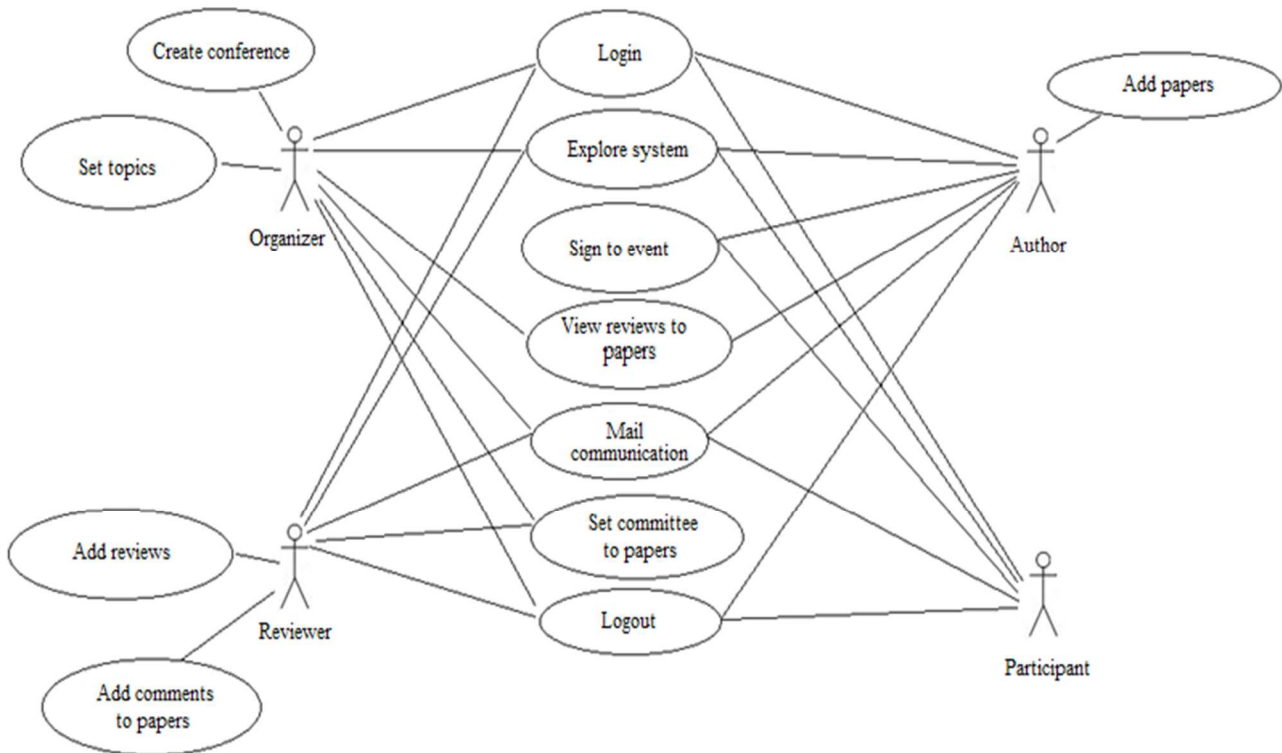


Figure 2 Users functions

The most interesting systems suitable for organization of conferences are web conference systems *ConfTool*, *EasyChair*, *OpenConf* and for us is also very interesting information system of company *TANGER, Ltd.* These systems are available and very effective for organization of conferences. After system analysis of the available web conference systems we have decided to combine the basic functions of these systems. We have created the new web conference system for UL TUKE called *ConfUL* – Conference system of UL TUKE [6].

### 3 Roles and permissions of users

*ConfUL* divides users into organizers, authors and participants. User in the role of organizer can create unlimited number of conferences, he sets information about conferences such as title, dates and place of event, terms for closing of registration to conference. He also sets the topics for conference, program and other information. The organizer can search every paper added to conference,

confirms or rejects user's demands to be co-organizer to actual conference.

The role of author can add paper to conference and can create order to conference in order form set by organizer.

The role of participant can create order and sign to conference, even if he does not want to add paper and presentation to conference.

The administrator of the system can manipulate with all system functions, can be in the role of organizer, but he also has some specific permissions – he is allowed to erase all the conferences. The web conference system *ConfUL* and its functions are described in the following chapter.

### 4 Basic functions of *ConfUL* system

Our goal was to create web conference system as a tool allowing the members of the Department of Logistics for simple, fast and effective organization of conferences.

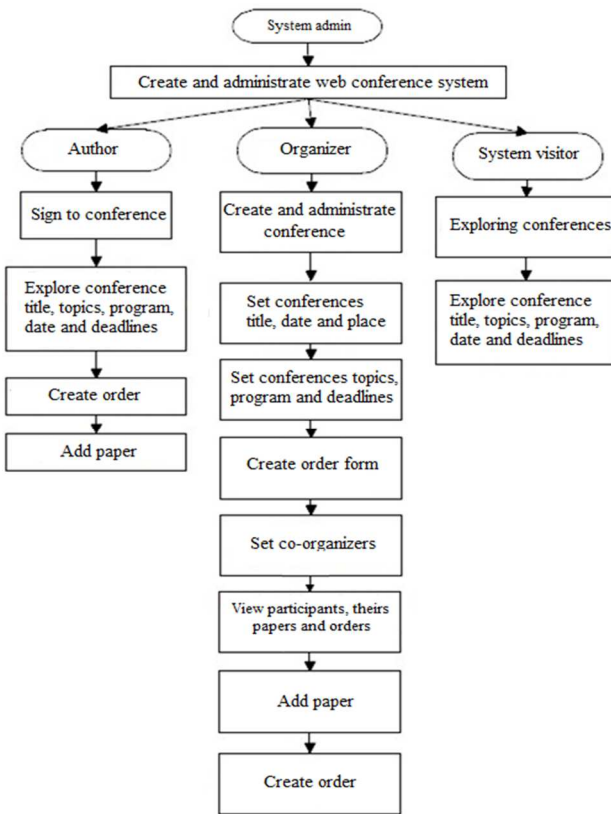


Figure 3 Functions of ConfUL

ConfUL represents a user friendly and reliable system (Figure 3) capable of transmitting big amount of information between its users and database in the real time. As programming languages we used *PHP*, *Html*, *CSS* and also the database *MySQLi*.



Figure 4 Display event

Home page (Figure 4) of the system shows all created conferences and by clicking the „Detail Conference“ button we can search topics, program and deadlines to conference. If we want to sign to conference we need to register to the system and then by clicking the „Sign to conference“ button we confirm our interests in conference and we can choose our role for conference. If we choose

role of organizer, other organizers or systems admin must confirm our role. If they reject this demand, we will get the role of author (Figure 5).



Figure 5 Set role to conference

The role of organizer can see all conferences organized by him, can add or reject other organizers to his events and can also add and edit information about conference. Organizer creates the order form, sets billings information, inserts program, topics and deadlines, sets information for authors, inserts sponsors and their logos. The role of organizer is allowed to view all participants, their orders and papers added to conference (Figure 6). He can consider paper suitability to the conference and also can reject this paper. Also he can be an author to these or other conferences, so if he signs to the other conference, created by other organizer, he again chooses his role to this event.

**View accepted articles**

[Open articles for authors and participants](#) [Close articles for authors and participants](#)

S.N	Name	Title	Article	Status
1	Petra Pleskova	Article 1	<a href="#">Detail</a>	Accepted
2	Petra Pleskova	Article2	<a href="#">Detail</a>	Accepted

Figure 6 View accepted articles

The role of author can add paper to conference and create order (Figure 7).

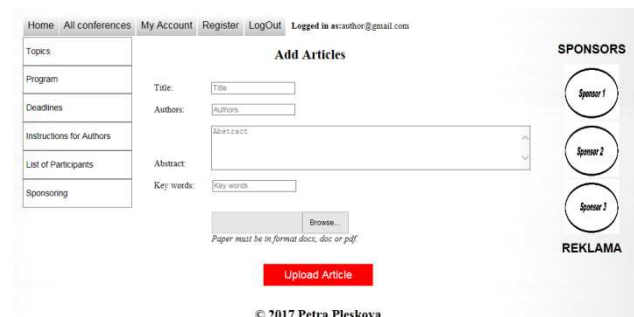


Figure 7 Add articles

The role of participant can sign to conference and create order as shown in Figure 8.

## Create Order

### Fees

Autor - Paper :  500 €  
 Autor - Poster :  450 €  
 Participants without paper :  400 €

### Accommodation

First night : 28.-29.11.2017

Single room: 50 €  Alone  
 Double room: 45 €  With Participants

Second night : 29.-30.11.2017

Single room: 50 €  Alone  
 Double room: 45 €  With Participants

### Note

### Optional items

CD:  15 €

Create order

Figure 8 Creating order

Each user of *ConfUL* can change his role to all events. System administrator is the most important role in our system. This role is allowed to use every function of system. He can influence every activity of organizers and also has some special functions. The most important function of admin functions is to approve or reject new conferences.

Other functions are (Figure 9):

- creating new conferences,
- viewing all conferences,
- viewing requests for new conferences,
- viewing all users and view orders.

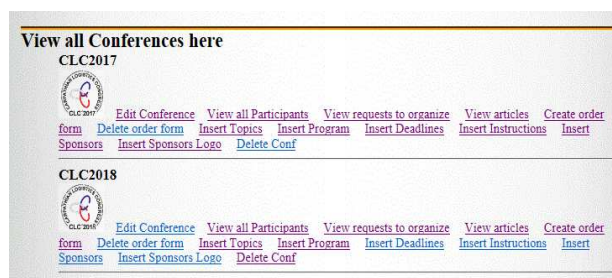


Figure 9 View all conferences here

## 5 Conclusion

The web conference system *ConfUL* represents a highly effective and useful tool for organization of conferences. It provides a very simple and user friendly interface for managing hundreds of information and financial flows between the participants of the conference. *ConfUL* allows users to organization, administration of submitted papers and orders, it provides information about

conference to everybody online, in real time. This system makes organization simple, ordered and minimalizes the possibility of human factor failure.

The multicriterial analysis of other web conference systems enabled us to select the basic requirements of the information system. As shown in Figure 2 the common basic functions of web conference systems are registration and sign in of users, adding papers, creating orders and adding sponsors along with many more.

The *ConfUL* project includes more than one hundred subpages. Most of them are invisible for users but crucial for function of the system. The source code contains more than ten thousand rows of programming code and it took more than two years to build up.

The *ConfUL* system has got a big potential in developing its functions. We can easily adjust the existing functions and create many more allowing for more detailed organization of conferences. The system could thus become very effective tool for exchange of scientific information and could be used by many users from different institutions [6].

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## Review process

Single-blind peer review process.