# INTEGRATED SYSTEM FOR ELECTRONIC EDUCATION (ISEE)

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#### **ABSTRACT**

In this article my idea of Integrated System for Electronic Education implemented as web application is presented, this system can also be called (I)LMS – (Integrated) Learning Management System. At present I have been creating a system for presentation, preparing study materials and now I will shortly describe my activity. Further development is discussed too.

#### 1 INTRODUCTION

This work is motivated by endeavour to show study materials in a unified form for all subjects. When I started to prepare the system, I recognized that there are lots of parts, which can be added, and problems connected with this idea. So the proposal of ISEE was created. Due to the fact that this system is based on the HTML (web pages) it can be extended by various modules, which can be run on the web server and can be integrated in web pages.

#### 1.1 CLASSICAL AND ELECTRONIC EDUCATION

Classical education has been well known for a long period of time. But when personal computers became available, teaching programs were created. The first programs were simple and corresponded to the possibilities of hardware. When hardware became better the teaching programs also started to develop.

Now lots of programs exist which can be used either as an appendix for classical courses or as a compensation of classical courses. In my opinion it is better to use programs as an appendix to classical courses because not all can be taught without a teacher and there is no emotional part. On the other side students can study according to their possibilities, but it is often necessary to check what the student has already managed. Strong motivation

of students for distance learning (e-learning) is also necessary. So it is important to have a qualified proposal of a program (electronic course). Lots of new programs use internet.

# 1.2 WHAT DOES ISEE (INTEGRATED SYSTEM FOR ELECTRONIC EDUCATION) MEAN?

ISEE can be marked as e-learning system (also ILMS). It should consist of parts for organization folders, for preparing educational materials and for materials prepared for presentation. But also lots of further parts can be added to ISEE e.g. on-line library, electronic registration for courses and for terms of exams.

# 1.3 TECHNOLOGIES FOR MY SOLUTION OF WEB ELECTRONIC EDUCATION

A lot of technologies can be used for web pages. Some are designed for the client side (CSS, Java and JavaScript), others for the server side (CGI scripts, SSI, SSJS, ASP, PHP). Next are used on the way from server to client (SOAP) and some are used on both sides (.NET, XML, Databases).

In this ISEE the main environment is formed by HTML pages in connection with PHP scripts and JavaScripts. For storing templates of subject pages XML is used. Alike last time the same databases as in the faculty information system will be used.

# 2 MY PROPOSAL AND MY ROLE

There are many parts of ISEE, but due to the time reasons only some parts can be implemented in this year. Besides graphic proposal of WWW pages I proposed: the configuration of system, the interface for creating (adding) further modules, the editor template of WWW pages and a part of XML template, the generator of WWW pages from XML template, the module for administration the information of subjects and the on-line WWW viewing module. Further I'm responsible for module integration to the systems.

#### 3 WHAT MODULES ARE DONE – 1ST MAY 2003

#### 3.1 THE TEMPLATE EDITOR

During creating I cooperated with Tomáš Zajíc my colleague. I created the selection from created modules and addition of further menu items. He created the files selection. The integration into the system was without any problems.

# 3.2 THE WWW PAGES GENERATOR

The whole generator is my work. There were no problems with the integration.

### 3.3 THE ADMINISTRATION MODULE

It is also my work and I was also without any problem during integration.

# 3.4 TESTING

The testing was created by colleague Jan Pytlík. Some arrangements for successful integration into the system were necessary here.

### 3.5 THE ON-LINE VIEWING THE WWW PAGES FOR SUBJECTS

This module encapsulates WWW pages for each subject. It is also my work.

#### 4 FURTHER DEVELOPMENT

The interface for adding new modules is defined. It isn't any problem to create new modules and integrate them into the system. At this time it is create the module for creating off-line version of WWW pages is ready. Probably English version of this system it will be created.

#### 5 CONCLUSION

In the first step I created a proposal with colleagues. Now we can discuss this solution and look for the best way for the introduction of electronic education at our faculty.

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