

*XVII IMEKO World Congress  
Metrology in the 3rd Millennium  
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## FACING THE XVII IMEKO WORLD CONGRESS – HOW WE DID IT

*Dražen Klarić, Bojan Mazanek, Mladen Boršić*

Faculty of Electrical Engineering and Computing, Unska 3, 10000 Zagreb, Croatia

**Abstract** – IMEKO World Congress is gathering of experts in the field of metrology. More than 500 abstracts have been received during last year and even more people have registered for attending it. Huge number of applications required usage of modern technologies including Internet as a backbone for communication and interaction among participants and organisers. From one excel table we developed powerful web based application that can handle more than 5000 records thus enabling us to overcome difficulties that faced us during organisation of the congress.

In this paper we describe how Croatian Metrology Society dealt with the challenge of organising IMEKO World Congress. We discuss about technologies used to attain multi user environment and accessibility of data to entire organising committee. Something about security issues related to revision process of not yet published papers would be pointed out. We will illustrate some examples of our software for automate of the registration process.

Keywords: IMEKO World Congress

### 1. INTRODUCTION

XIV IMEKO World Congress (1997.) took place in Finland, at University City Tampere. On the Main Council assembly the decision was made: XVII. IMEKO world congress will take place in year 2003. in Dubrovnik, Croatia. Though there were suggestions to postpone the decision on the place where the Congress will be held and though the Croatian competitors were very developed countries, U.S.A. and Spain, presentation of Croatian motivation, experience in organizing international events of great importance, potential and possibilities to organize such a enormous event passed the competitors. Dubrovnik, the 'Pearl of the Adriatic', situated on the Dalmatian coast, city on the UNESCO's list of world heritage was recognized as an attractive destination for such gathering.

XVII IMEKO World Congress organising committee received 592 extended abstracts from 526 different authors. Review process included 145 experts in the field of metrology and almost 1500 review forms were taken into consideration. All authors with positive reviews had possibility to publish their papers in the Congress Proceedings. Nearly 500 of them used this possibility. Impressive number of 48 countries and almost 1400 authors involved in XVII IMEKO World Congress are the facts that make Croatian Metrology Society proud.

Since our stuff was dislocated at three locations, constant need for exchange documents among organisers or between organisers and participants initiated the need for usage of modern technologies. Internet and WWW (World Wide Web) as media that is practically free and widespread in academic community provide a good opportunity for interaction among participants, congress secretariat, technical stuff and experts in the field of metrology. Decrease of expenses, access to large number of potential participants and easier access to information are the main reasons why Croatian Metrology Society decided to transfer promotion and organisation of the Congress to the Internet.

Since there was expected to receive about 500 papers, need to automate the process of registering the participants was evident. We created system based on Microsoft Access 2000 [1, 2] that enabled us to automatically check and process abstract submission forms and registrations. System also provide minimum of the security regarding not yet published papers which had to be deployed to the metrology experts, all over the world, for the review. Also it allowed us to easily create SQL [3] queries on every aspect of the Congress whether they were about simple calculations such as: "How many papers were registered", "Who didn't pay" or more complicated like "How many authors applied from each country". Web pages of the XVII IMEKO World Congress were designed and made by Croatian Metrology Society using Hypertext Markup Language (HTML) [4], JavaScript [5, 6] and Active Server Pages (ASP) [7].

In Section 2 of this article we describe submission procedure of extended abstracts. Section also discusses review process and security issues connected with not yet published papers. Registration of participants is described in section 3, while section 4 deals with problems connected to structure of technical program. Final comments are given in section 5.

### 2. ABSTRACT SUBMISSION AND REVIEW

The authors had to write down the extended abstract that then together with Abstract Submission Form formed two basic documents required for entering the review process. All submitted extended abstract were then forwarded to reviewers respectively of the TC author has chosen.

145 reviewers, from 19 TC, responded positively when they were kindly ask to put their services on the disposal for the XVII IMEKO World Conference. At this point, security issue became the most important. Extended abstracts are not yet published and therefore need to be protected from non-

authorised view. We created ASP password protected web page. Reviewers could only access the extended abstracts respectively of the TC for which they have been provided with login and password. If the login and the password were matched (Fig. 1) the reviewer could download the extended abstract in the Adobe acrobat (\*.pdf) format with appropriate review form as Microsoft Word (\*.doc) file.

**Articles**

Enter login and password

Login:

Password:

Fig. 1. Password protected reviewer web page

After thorough inspection of the article, reviewer filled in the adjacent form that was then returned to Croatian Metrology Society. The reviewer's form contained following issues to be decided upon: relevance to XVII IMEKO 2003, novelty, clarity, overall, presentation style (suggested by reviewer) and reviewer remarks.

When receiving the form, all relevant data were included into the database from where final decisions were made concerning participation of each and every submitted extended abstract. The authors were informed of the final decision respectively of the reviews. Furthermore some were transferred between TCs, some had to change their presentation style and some have received useful remarks.

### 3. REGISTRATION AND ACCOMMODATION

After positive revision, authors of the accepted papers had to send electronic versions of their full papers in the Adobe acrobat (\*.pdf), and Microsoft Word document (\*.doc) format, also they had to register for the congress. The guidelines for the preparation of the full paper were published on the congress web page and were used as a template for the manuscript because they contained all necessary formats and styles. Registration was done via registration for authors web page. For the first time JavaScript was used to check correctness of the filled forms (Fig. 2) and for calculating the total fee amount to be paid. From the experience gained during earlier period, conclusion was made that all negative possibilities will occur if allowed! Some of the fields become compulsory and most of the fields were checked for incorrectness. For example: paper number field needed to be filled with only numbers, not letters or email address required to have @ sign. This enabled us to lower the number of incorrect registration forms and decreased number of interactions between organising committee and participants. Calculating of total fee improved accuracy of the fee payment.

Title:	<input type="radio"/> Professor <input type="radio"/> Dr. <input type="radio"/> Ms. <input checked="" type="radio"/> Mr. <input type="radio"/> Student <sup>2</sup> *
Presenting author first name:	<input type="text" value="Dražen"/> *
Presenting author family name:	<input type="text" value="Klarić"/> *
Affiliation:	<input type="text" value="FER"/>
Address:	<input type="text" value="Unska 3"/> *
Postal code:	<input type="text" value="10000"/> *
City:	<input type="text" value="Zagreb"/> *
Country:	<input type="text" value="Croatia"/>
E-mail:	<input type="text" value="dk@fer.hr"/>
Fax <sup>1</sup> :	<input type="text" value="+38511234567"/>
Phone <sup>1</sup> :	<input type="text" value="+38517654321"/>

**Microsoft Internet Explorer**

! Paper No. field must be number!

Paper 1 No.	Paper 2 No.	Paper 3 No.	Paper 4 No.	Paper 5 No.
<input type="text" value="712"/> *	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Fill in the number(s) of your paper(s).

\* required fields  
<sup>1</sup> include country and area code  
<sup>2</sup> (only the undergraduate students). All the students must complete the students certification form or the full registration fee will be applied.

Fig. 2. Example of registration web page

Upon submit, the data was automatically inserted into registration database for further use and manipulation. Registration database contained data on the author presenting the paper, social and cultural program that author wishes to attend, total fee, method of payment and stage of the payment. Also particular remarks were included. Only the papers for which the registration fee has been paid were published in the Congress proceedings.

Not only the authors had possibility to register. For the participants and accompanying persons additional, more undemanding, registration web pages were prepared.

Till now registration database had 6 different tables and huge number of all set queries. System enabled us to easily extract persons of any kind of interest. Usage of database and merge possibility of Microsoft Word and Outlook, made sending of 400 emails to different persons connected with the same conditions easy and fast. For example: when there was a need to send VISA forms to the participants from countries that must have VISA for entering Croatia, simply the list of those countries were put in the SQL query [3]. Result was extract and necessary documents were merged. In the same manner we dealt with the emails attached with this forms.

Accommodation of participants was made through our web page (apart from Hotels in Dubrovnik), but was not processed by Croatian Metrology Society. Copy of the accommodation database was used for inspection which individuals didn't apply for the Congress, but used possibility of reduced accommodation fee that was reserved only for the participants of the XVII IMEKO World Congress. Also some of the participants informed us that they are going to attend farewell party, indeed they were leaving Croatia before this event. Information of arrival and departure were in the accommodation tables.

#### 4. TECHNICAL PROGRAM

Creating technical program was one of the most significant and demanding tasks. Initially, another database had to be created and filled with data about full papers (number, title and keywords) and also data about presenting author and all coauthors on the paper (title, first name, family name, affiliation, city and country). Idea was to build password protected web page (Fig. 3) with the purpose for all authors on the same paper to access and enter above mentioned data. This plan was later abandoned but the web page was used to enter data on our own extracting the data from the full papers.

Paper Number:

Paper number: 617  
Paper title: FACING THE XVII IMEKO WORLD CONGRESS – HOW WE DID IT

Paper title : FACING THE XVII IMEKO WORLD CONGRESS – HOW WE DID IT

Presenting Author	
First name:	Dražen
Family name:	Klarić
Affiliation:	Faculty of Electrical Engineering and Computing, University of Zagreb
City:	Zagreb
Country:	Croatia
E-mail:	drazen.klaric@hmd.hr
Rbr na radu:	1

In order to give us full information about authors working on the paper you must enter data about all coauthors

Submitted coauthors:

First name:	Bojan
Family name:	Mazanek
Affiliation:	Faculty of Electrical Engineering and Computing, University of Zagreb
City:	Zagreb
Country:	Croatia
E-mail:	bojan.mazanek@hmd.hr
Rbr na radu:	2

Fig. 3. Paper data web page

After collecting data for all accepted papers the next thing to do in the system was to automate process of publishing it on web page and printed version of technical program. For the technical program web page (Fig. 4.) we used ASP [7] and SHTML [4]. These two technologies gave us possibility to easily form and order papers in each section.

This database was used when there was a need to contact author that either didn't gave us correct email address or simply didn't answer on any of our emails. Database with email addresses of approximately three authors per paper enabled us to receive desperately needed information, especially in the closing stage of registration process and payment.

Number of session:

Session 1.3

A THREE-STEP APPROACH TO PRACTICAL TRAINING IN MEASUREMENT; oral; (269)  
P. Regtien, University of Twente, Laboratory of Measurement and Instrumentation, Enschede, Netherlands  
C. Heida, University of Twente, Laboratory of Measurement and Instrumentation, Enschede, Netherlands

TEACHING MEASUREMENT THEORY IN METROLOGY, STANDARDIZATION AND CERTIFICATION; oral; (280)  
S. Murayov, Tomsk Polytechnic University, Tomsk, Russian Federation  
V. Savolainen, University of Jyväskylä, Jyväskylä, Finland

TEST RIG FOR THE DEMONSTRATION OF THE FLOW IN A RADIAL PUMP; oral; (406)  
E. List, Vienna University of Technology, Institute for Waterpower and Pumps, Vienna, Austria  
J. Prost, Vienna University of Technology, Institute for Waterpower and Pumps, Vienna, Austria

BUILDING A WEB-BASED KNOWLEDGE AND LEARNING HOME FOR MEASUREMENT SCIENCES; oral; (539)  
P. Aebli, ABB Switzerland Ltd, Zürich, Switzerland  
A. Kaufmann, Kaufmann Engineering, Luzern, Switzerland  
K. Ruhn, Federal Institute of Technology, (ETH), Zürich, Switzerland

METROLOGY EDUCATION AND CITIZENSHIP: THE BRAZILIAN EXPERIENCE; oral; (576)  
L. Almeida, Catholic University PUC-Rio, Rio de Janeiro, Brazil  
M. Frota, Catholic University, Rio de Janeiro, Federal University Universidade Federal Fluminense, Rio de Janeiro, Brazil  
M. Frota, Language and Literature Institute, Fluminense Federal University, Niterói, Brazil

Fig. 4. List of Section 1.3 (oral)

#### 5. CONCLUSION

In this article we described how Croatian Metrology Society dealt with the challenge of organising IMEKO World Congress. We discussed about registration processes and technologies used. Something about security issues was mentioned as well. We illustrated some examples of our software for automate of the registration process and pointed out benefits of using it.

#### REFERENCES

- [1] Paul Cassell, Pamela Palmer, "Sams Teach Yourself Microsoft Access in 21 Days", A division of Macmillan Computer Publishing, Indianapolis, Indiana, USA, 1999.
- [2] Joyce Cox, Nathan Dudle, Liz Aune, "Quick Course in Microsoft Access", Online Press Inc., Bellevue, Washington, USA, 1999.
- [3] ZPM, "SQL", Faculty of electrical engineering and computing, Zagreb, Hrvatska, 2000.
- [4] Elizabeth Castro, "HTML for the World Wide Web with XHTML and CSS: Visual QuickStart Guide", Peachpit Press, September 17, 2002.
- [5] Tom Negrino, Dori Smith, "JavaScript for the World Wide Web: Visual QuickStart Guide", Peachpit Press, April 26, 2001.
- [6] David Flanagan, "JavaScript: The Definitive Guide", O'Reilly & Associates, December 15, 2001.
- [7] Alex Homer, David Sussman, Brian Francis, George Reilly, Dino Esposito, Craig McQueen, Simon Robinson, Richard Anderson, Andrea Chiarelli, Chris Blehrud, Bill Kropog, John Schenken, Matthew Gibbs, Dean Sonderegger, Dan Denault, "Professional Active Server Pages 3.0", Wrox Press Inc; 1st edition, September 1999.

#### Authors:

B. Sc. Dražen Klarić, Faculty of Electrical Engineering and Computing, Unska 3, 10000 Zagreb, Croatia, phone: +385 1 6129 749, fax: +385 1 6129 616, E-mail: [drazen.klaric@hmd.hr](mailto:drazen.klaric@hmd.hr).  
B. Sc. Bojan Mazanek, Faculty of Electrical Engineering and Computing, Unska 3, 10000 Zagreb, Croatia, phone: +385 1 6129 749, fax: +385 1 6129 616, E-mail: [bojan.mazanek@hmd.hr](mailto:bojan.mazanek@hmd.hr).  
Prof. Dr. Sc. Mladen Borsic, Faculty of Electrical Engineering and Computing, Unska 3, 10000 Zagreb, Croatia, phone: +385 1 6129 749, fax: +385 1 6129 616, E-mail: [mladen.borsic@hmd.tel.hr](mailto:mladen.borsic@hmd.tel.hr).