

The Small Systems Simulation Symposium twenty six years on

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Abstract: – A very short overview of the history of the Small Systems Simulation Symposium will be given. It takes place for twenty six years now at the Faculty of Electronic Engineering of the University of Niš, in Serbia. The rationale for the establishment of the symposium at the (millenium) year of 2000 will be given first. Than, statistics will be given describing the symposium from the number of countries, number of authors and number of papers point of view. Short analyses of the statistics will be given. Names of the authors who made crucial contributions to the symposium will be listed. To get feeling about the direction of the research of the SSSS activists, a list of subjects visited in the first SSSS will be given and discussed.

Keywords - Symposium, history, statistics

I. INTRODUCTION

We will start with some data related to the conditions that lead to the idea of starting the venture which we named Small Systems Simulation Symposium.

In the late eighties and in all nineties explosive advance in the research in the Laboratory for Electronic Design Automation (LEDA) of the Faculty of Electronic Engineering in Niš, occurs.

In addition to the purchase of the Honeywell 6 computer by the faculty, LEDA got a Tektronix professional graphic terminal and large Hewlitt Packard plotter. Then came a personal computer, a Hewlett Packard work-station and Silicon graphics “Indigo”.

That infrastructure enabled introduction of C and C++ computer programming and the TCP IP protocol (first Internet connection at the University of Niš outside the main building).

Additional precondition was the support of the British council in the establishment of collaboration with the University of Southampton (Robert I Damper, Mark Zwoliński, and Tomasz Kaźmierski) and the Middlesex University (Ebrahim Bushehri).

Following are the main achievements reached in that period

- ISPGM, Integrated software for gate array design (Tatijana Janković, Zoran Radenković, and several others)

- GKS simulator (Igor Jančićević, Zoran Radenković)
- Alecsis, the mixed signal, mixed mode simulator (Dejan Glozić, Željko Mrčarica, Dejan Maksimović)
- Expert system (rule based AI) (Zoran Radenković)
- ANN implementation of the MOSFET modeling (Tatijana Janković, Srđan Milenković, Jasna Rađenović, Zoran Radenković, Željko Mrčarica)
- Second order ANN synapse (Srđan Milenković)
- The **FIRST** Serbian full-custom integrated circuit design and testing (Predrag Petković, Saša Janković)

Following are the main recognitions obtained in that period

- The MIPRO student award for the GKS clone (simulator) (Igor Jančićević, Zoran Radenković)
- The ETRAN best paper award for the first Serbian logic simulator (Zoran Stojanović, Vančo Litovski)
- The TESLA award for life achievements (Vančo Litovski)
- The Savastano best paper award for the ANN implementation to electro-magneto-mechanical modeling (Tihomir Ilić, Željko Mrčarica, and Vančo Litovski)

At the end of that period we were facing the NATO aggression and, all seemed it was coming to catastrophic end. That did not happened thanks to the support of the colleagues from the University of Southampton and to Dr Ebrahim Bushehri from the Middlesex University. We got projects at both Universities and the thread of research was not cut. Instead, it became much stronger. It was about the beginning of the year 2000 when the idea of a meeting which will enable summing the collaboration results was born. Professor Emeritus Dr Robert Ivan Damper should be credited with it.

The first SSSS took place in September 2000 gathering a modest number of enthusiast. We used the opportunity then to promote the new line of collaboration we started with the Technical University of Vienna, in fact, with Prof. Wolfgang Detter.

To bring the feeling about the research interest then reported we will list here keywords cut of the titles of the

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papers submitted to the conference:

- Finite element approach to stress analysis
- Integranular impedance-diffusion process
- Electrothermal simulation
- Vibration control
- Neural simulator
- Analog and mixed signal HDL: AleC++
- ANN for modelling dynamic systems
- Large circuits symbolic analysis
- High level simulation
- Object oriented modelling of realtime systems
- Fault injection and VHDL simulation

The reader is encouraged to compare them with the keywords dominating the SSSS_26 proceedings. One would proudly say: very advanced for the time.

II. OVERVIEW

We will proceed now with the statistics related to the symposium.

There were (including 2026) ten meetings. That makes the actual a kind of jubilee symposium.

While held at the Faculty of Electronic Engineering, the first three symposia were organized in conjunction with the Yugoslav Simulation Society which in fact was the main carrier of the activities.

The first three symposia were held five years apart while the rest took two years period. Exception was the year 2024 when no symposium was organized due to the overlapping with other events organized by the faculty in that year and consequently the limited financial resources.

We soon were pleased with the numbers representing the symposium.

As for the number of authors, it is depicted in Fig. 1. One can see that we needed some time to make the event attractive for colleagues outside of the main kernel mentioned above (outside of LEDA and its partners abroad). To that, significant contribution was made by Prof. Branko Dokić, from the Faculty of Electrical Engineering of Banja Luka, Rep. Srpska, B&H, thanks whose courtesy, ten papers of the SSSS2010 were accepted for publication in the scientific journal Electronics to which he was editor-in-chief.

As can be seen from Fig. 1 [1] the number of authors was then settled above fifty with significant margins.

It was of special importance the collaboration with the Technical University of Vienna (Prof. Helmut Detter, Dr Aleksandar Vujanić and Dr Gordana Popović), Universidad Politecnica De Madrid (Prof. Slobodan Bojanić and Prof. Octavio Nieto Tadriz Garcia) and Technical University of Ilmenau, Germany, (Prof. Volker Zerbe), Synopsis Armenia, Tbilisi, Armenia (Prof. Vazgen Melikian) and The faculty of Information Technologies and Computer

Engineering of Skopje, N. Macedonia (Prof. Dimitar Trajanov).

One should mention here that both the number of papers coming from Serbia and from abroad rose simultaneously.

Similar was the situation with the number of papers. We started low, at eleven, reaching a maximum of 30 papers.

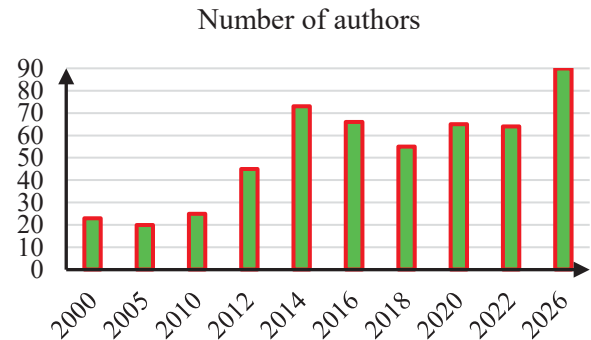


Figure 1. Overview of the number of authors per conference

Together with the number of papers came the diversity of subjects. A wide variety of themes were elaborated. We consider going into analysis of the contents here is not appropriate. It, in fact, illustrates the research orientation of the participants and, in parallel, the achievements in the collaboration of LEDA with other entities.

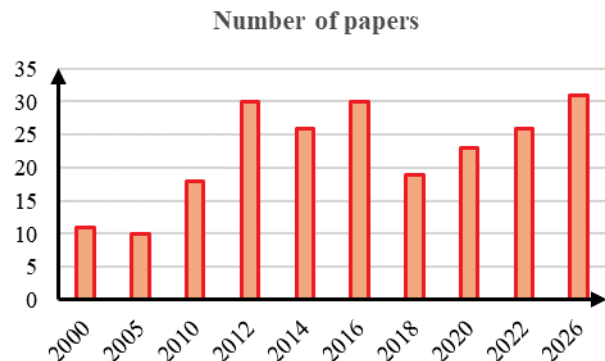


Figure 2. Overview of the number of papers per conference

We come now to the international character of the symposium. Being conceived as a promoter of international collaboration it fulfilled its purpose to the full extent. At the first symposium, in addition to the papers originating from Serbia, we had authors from Great Britain and France. The number of countries rose gradually as depicted in Fig. 3. The new countries which took part were Spain, Germany, Bosnia and Herzegovina, North Macedonia, Armenia, Croatia and Bulgaria. In several cases these

participations were supported by joint projects of LEDA and the foreign entities such as The University of Southampton (via British Council), Technical University of Ilmenau (via DAAD), Universidad Politecnica de Madrid (via TEMPUS) and the Middlesex University (own financial scheme).

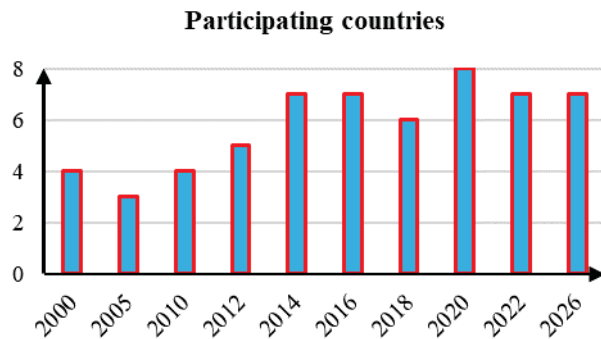


Figure 3. Overview of the number of participating countries

III. CONCLUSION

To conclude, The Small Systems Simulation Symposium fulfilled all expectation of the establishers and, as we can see now from the Symposium Program, is taking a large new leap towards a successful future.

REFERENCES

- [1] Proceedings of the Small System Simulation Symposium 2000-2026.
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