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 $\theta^{th}$  International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services



# REPORT OF THE TELSIKS 2003 CONFERENCE

#### **Foreword**

In the early 90's, at the time when the telecommunication technologies developed very fast, a biennial conference on telecommunications in modern satellite, cable and broadcasting services named "TELSIKS" was initiated at the Faculty of Electronic engineering in Nis, Yugoslavia. At the beginning, exactly ten years ago, the conference was of a national importance. Thanks to the advancement in all aspects (number and quality of papers, number of foreign/domestic participants, additional events, etc), TELSIKS is since 1997 an international, IEEE cosponsored conference.

The 6th conference in this series, TELSIKS 2003, was held from 1 to 3 October 2003, at the Faculty of Electronic Engineering, University of Nis, Serbia & Montenegro (former Yugoslavia). It was organized by the Faculty of Electronic Engineering - Nis under IEEE MTT-Society, Communications Society, AP-Society and Region 8 technical co-sponsorships, and in co-operation with Yugoslavia IEEE Section, Yugoslav MTT Chapter and Yugoslav Communications Chapter. In addition, the conference was supported by Serbian Academy of Science and Art, Engineering Academy of Serbian & Montenegro and many domestic societies.

## **Conference topics and participants**

About 220 papers were submitted for the conference, covering the main conference topics: Mobile communications, Classical cable and optical communications, Multimedia communications, RF and microwave technique, Antennas and propagation, Electromagnetic compatibility, Digital signal processing, Broadband wireless access, Telecommunication networks, Modulation and coding, Internet technologies, etc. Each paper within the "regular papers" category was reviewed by at least two members of International Reviewing Board, following a rule that the reviewers were from different countries. At the end of the reviewing process, 150 regular papers were accepted for oral or poster presentation. In addition, a number of experts were called to present their invited papers. At this year's conference an invited plenary talk and 18 invited keynote talks were given. Also, 9 invited papers were presented in a special session dedicated to the 70<sup>th</sup> birthday of Prof. Aleksandar Marincic, who is a member of Serbian Academy of Science and Art, an eminent scientist and outstanding professor in the field of telecommunications.

The total number of papers was 178 (Fig.1) and the number of authors was 357. It should be noted that these numbers are the highest until now in the series of TELSIKS conference.

The authors were from 31 countries and from all 5 continents: Australia, Bulgaria, Bosnia & Herzegovina, Canada, China, Denmark, Finland, Germany, Greece, Hungary, India, Iran, Ireland, Italy, Japan, Libya, Macedonia, the Netherlands, Poland, Portugal, Romania, Russia, Serbia & Montenegro, Slovak Republic, Slovenia, South Africa, Switzerland, Turkey, Ukraine, the United Kingdom and the USA.

From the first TELSIKS conference until now, increasing of the participation of foreign authors is obvious, as it is shown in Figure 2. At the previous conference, the number of papers from abroad passed over one half. This year, the foreign and domestic papers shared the total amount with a ratio of 55% to 45%, respectively.

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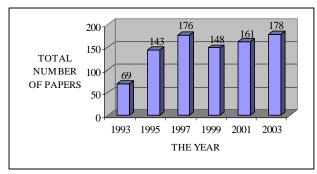


Fig. 1

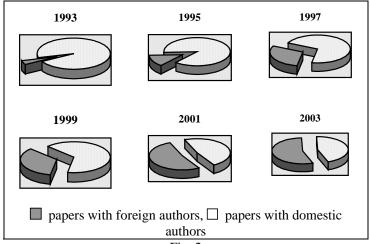


Fig. 2

#### **Publications**

All accepted papers were published before the conference. The proceedings, which were composed of two books and accompanied with a CD-ROM publication, were distributed to all registrated participants. It is important to note that the Conference Proceedings have been distributed as an IEEE publication (*Book Broker Post-conference Distribution Program*) for the third time (started from TELSIKS'99). This year the Conference Proceedings is included in the well-known IEE INSPEC database too.

In addition, a special publication in the form of a magazine, "Telsiks News", was published for this occasion, involving two issues. The first issue was printed before the conference and included useful and last-minute information. The second issue was prepared by the students, printed and distributed during the conference, giving the first-hand reports of the conference events.

## **Conference program**

TELSIKS 2003 started on Wednesday, October 1, by an Opening Ceremony. It was followed by a Plenary Session, where a Plenary keynote adress was given. The distinguished invited speaker was Prof. Ke Wu from Ecole Polytechnique, Montreal, Canada, and the title of his very interesting and notable lecture was: "The Substrate Integrated Circuits - A New Concept for High-Frequency Electronics and Optoelectronics".

From the total number of accepted papers, 100 were organized for oral presentation and 50 for presentation within an open forum (poster presentation). During the three conference days there were 18 oral and 7 poster sessions. Papers related to the microwave technique were presented within several sessions, for instance: "RF and Microwave Devices", "Microwave Transistor Modeling", "Integrated Circuits", etc.

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Invited papers were arranged at the beginning of oral sessions. The program included several invited papers specially interesting for the people working in the microwave field, as for example "On the Design of Waveguide Devices Using Multiple Propagation Modes" by P. Meyer, South Africa, "Metamaterials: A new Concept in the Microwave Technique" by B. Szentpali, Hungary, "Microstrip and Printed Antennas: Recent Trends and Developments" by D. Guha, India, "Circuit Modeling of Low-Noise Microwave Transistors: Its Role in Supporting a Complete Device Characterization" by A. Caddemi, Italia, etc.

## Workshops and round tables

In addition, the technical program included two workshops. The first workshop was organized in the cooperation with Yugoslav IEEE MTT Chapter and its theme was "*Microwave and Optoelectronic Device Modeling*". The distinguished speakers were two known names in the field of microwave technique and optoelectronics: Prof. Sheila Prasad from the Northeastern University, Boston, USA, and Prof. Trevor Benson from University of Nottingham, UK. The name of the first lecture was: "Modeling of Heterojunction Bipolar Transistors". The second lecture was entitled: "Optoelectronic Modeling at Nottingham".

The second workshop was oriented to actual topics in Information Communication Technologies like: Digital Terrestrial Television, Cable Television, mobile Communications and Internet Technologies. The lecturers were the leading experts in the country.

Two round tables, held in Serbian, took place at the conference. The topic of the first round table was "National Innovation Program", exciting a great interest of the domestic researchers. The special guest of this round table was Minister for Science, Technology and Development of Republic of Serbia. Second round table "New Ambient for Telecommunication and Broadcasting Development" excited much attention too and had a really wide audience.

## **Exhibition, meetings and presentations**

The Conference was accompanied traditionally by an exhibition of research results and new industrial products related to the Conference topics. In addition, several commercial presentations were performed by leading international and national telecommunication companies like Ericsson, Motorola, Telekom, MOBTEL, Telefonija, etc.

Since TELSIKS 2003 gathered many people that work in the field of telecommunications, it was a good opportunity for various professional contacts and meetings. For instance, YU MTT Society meeting, YU CABLE Society meeting and Meeting of Workgroup for Gender Issues in Telecommunications were held. In addition, several international and national journals and books were exhibited and promoted.

## **Social events**

The social program was traditionally rich. Opening ceremony was completed with a mini-concert where Mozart's music was performed. A Welcome Cocktail was arranged after the plenary invited talk in the hall of the faculty building. In addition, an exhibition of the pictures and sculptures was opened, which was organized during the conference giving an additional social aspect to this event. On this first day of the conference, in the evening, a reception at the Mayor of the City of Niš was arranged first. After that, the attendees enjoyed an outstanding musical show with a plenty of songs from different parts of the world. The performers were a famous musical group and several young singers together with the University choir. At the end of this evening, a dinner in a beautiful restaurant was arranged for the invited authors.

At the afternoon of the second day a guided sightseeing tour was organized for conference participants, who had good luck with the weather. Actually, the conference place Nis is a city with a history longer that two millennia, and the attendees could see several interesting archaeological places from Roman and Turkish time. For instance, the former luxurious residence of Roman Emperor Constantine the Great called "Mediana" was visited. A unique monument called "Tower of Sculls" built by Turks after a victory excited a great attention. In addition, the attendees had very nice impressions of a neighboring spa.

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Conference banquet was held at the same evening in a nice restaurant and about 300 people were participated. At the beginning, a famous poet presented several of his poems. After that, the attendees enjoyed fine national cuisine, good beverages and exclusive live music till early morning hours. Many foreign participants tried (and were quite successful) to dance local folk dances.

# **Impressions**

It is of a great pleasure for the organizers that TELSIKS conference has been evaluated as a leading scientific conference in the field of modern telecommunication technologies in Central and Southeastern Europe. In most opinions, TELSIKS 2003 was the most successful in the series of TELSIKS conferences. Conference attendees have emphasized the outstanding impressions of the professional part of the conference and generally of a pleasant atmosphere during this international event.

Chairman of TELSIKS 2003 Conference

Prof. Dr. Bratislav Milovanović

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Opening Ceremony (from left): A. Marin~i}, K.Wu, B. Milovanovi} (Conference Chairman), T. Benson, I. Stojanovi} and J. Surutka



Information Desk







Round table



Reception at the Mayor of Niš



Delegates' discussion (from left): Ke Wu (Canada), Bela Szentpail (Hungary) and Frederic Deguillaume (Switzerland)

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After the session "Microwave Transistor Modeling" (among the conference delegates, there was a significant participation of the women – about 20%)



Conference Organizing Committee



Musical performance



Sightseeing tour



Conference banquet



Folk dance at the conference banquet