



5th International Conference on Telecommunications
in Modern Satellite, Cable and Broadcasting Services

REPORT OF THE TELSIS 2001 CONFERENCE

The 5th International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services - TELSIS 2001 was held from September 19 through 21, 2001, at the Faculty of Electronic Engineering, University of Ni, Yugoslavia. It was traditionally organized by the Faculty of Electronic Engineering - Ni, together with Ei HOLDING Co. - Ni and Radio-Television of Serbia - Belgrade. This year, TELSIS conference has been technically co-sponsored by four IEEE Societies: *Microwave Theory and Technique Society (MTT-S)*, *Antennas and Propagation Society (AP-S)*, *Communications Society (ComSoc)*, *IEEE Broadcast Technology Society (BT-S)* and by *IEEE Region 8*. The conference was organized under the auspices of Serbian Academy of Science and Art and supported by many republic and federal ministries, organizations and societies.

Starting from the previous TELSIS conference, the Conference Proceedings has been distributed as an IEEE publication (*Book Broker Post-conference Distribution Program*). It was published before the conference in both classical and electronic (CD) form.

The Conference topics were: Satellite communications, Classical cable and optical communications, Mobile communications, Computational electromagnetics, Antennas and propagation, RF and microwave technique, Electromagnetic compatibility, Broadcasting and digital television, Digital signal processing, Multimedial communications, Broadband wireless access, Telecommunication networks, Modulation and coding, Internet technologies, New telecommunications technologies and services and other.

TELSIS 2001 Organizing Committee received over 150 submissions. Each paper was reviewed by at least two members of International Reviewing Board. After this procedure, 127 papers with original scientific contribution were accepted. In addition, the Program Committee called a number of experts to prepare and present their invited papers with topics of interest. This category involved 33 papers. The authors of regular and invited papers were from 21 countries (Bulgaria, Bosnia & Herzegovina, Canada, China, Finland, Germany, Greece, Japan, Libya, Macedonia, Poland, Romania, Russia, Slovakia, Switzerland, The Netherlands, Turkey, United Kingdom, Ukraine, USA and Yugoslavia).

From the first TELSIS conference until now, the increase of participation of foreign authors is obvious, as it can be seen in Figure 1.

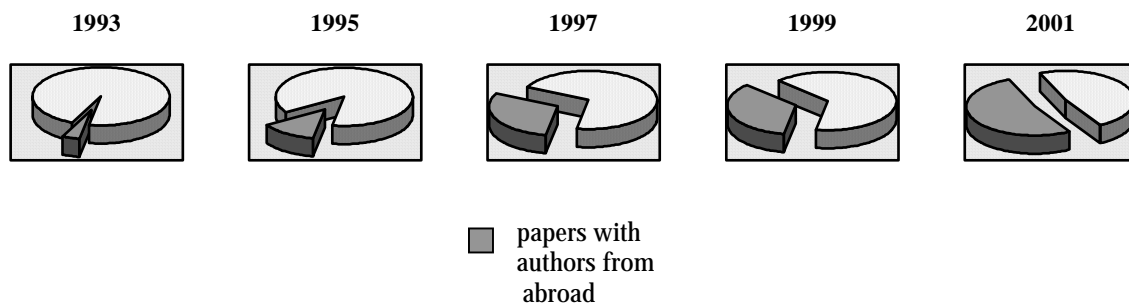


Fig.1 Increasing the number of papers with authors from abroad

TELSIKS 2001 started on Wednesday, September 19, with an Opening Ceremony. The Organizing Committee was honored by the attendance of two great names in the field of microwave technique and applied electromagnetics, Prof. **Tatsuo Itoh** from the University of California, LA, USA and Prof. **Ke Wu** from Ecole Polytechnique, Montreal, Canada. They were the members of Opening Session Executive Council together with Prof. **Bratislav Milovanovi}**, chairman of the conference, University of Ni}, Yugoslavia, Prof. **Jovan Surutka**, Member of Serbian Academy of Science and Art, Belgrade, Yugoslavia and Prof. **Aleksandar Marin-i}**, Member of Serbian Academy of Science and Art, Belgrade, Yugoslavia.

A special event dedicated to the memory of outstanding inventor of Serbian origin Nikola Tesla was in the focus of the TELSIKS 2001 opening ceremony. Namely, the known Yugoslav Foundation "Nikola Tesla" established the awards "Nikola Tesla" as the highest social recognition for highest scientific achievements in natural and technical-technological sciences, for achievements in invention, rationalization and innovation, etc. National TESLA awards and international "Jubilee Tesla Medal" are awarded by the Foundation Managing Board in accordance with determined rules and criteria, and on the basis of proposals submitted by the competent jury composed of the most eminent national scientific workers and experts. In previous twenty years of the Foundation activities 126 national awards were given in all fields, in addition to 12 international recognitions. The last winner in this series, on the initiative of YU MTT Society and Prof. Aleksandar Ne{i}, has been Prof. Tatsuo Itoh from University of California, LA, USA, for outstanding contributions in the fields of microwaves, millimeter-waves, antennas and numerical electromagnetics. During the conference opening session Prof. Aleksandar Marin-i}, president of the "Nikola Tesla" Society, gave the award "Nikola Tesla" to Prof. Itoh.

Plenary Session was held immediately after the Opening Session. It started with a keynote address presented by Prof. T. Itoh.: *"Recent Developments in RF Front Ends Based Upon Active Antenna Concepts"*. The second distinguished speaker at the Plenary Session was Mr. Roberto Blois, Deputy Secretary General of the International Telecommunication Union, Switzerland. His lecture was entitled: *"Activities and Role of ITU"*.

The conference technical program was organized in 17 parallel oral sessions, 7 poster sessions and 2 special sessions. Almost each parallel session started by one or several invited papers. All sessions were well visited and paper presentations were followed by many useful discussions. Two sessions involved the papers whose subjects were in the field of microwave technique, including three invited papers. First of them presented by Ke Wu, Canada, focused on the recent advances of hybrid planar/NRD-guide technology for mm-wave integrated circuit design. A.Ne{i}, Yugoslavia, spoke about antenna solution for future communication devices in mm-wave range. The author of third invited paper, about high-Q MEMS for wireless integrated circuits, was V. Lubecke, USA. The regular papers involved a wide list of topics in the area of analysis, design and measurements of microwave devices and systems.

In the scope of celebrating the 145 years of the birth of Nikola Tesla, the first special session was dedicated to Nikola Tesla. This session involved 7 papers, reminding us of Tesla's exceptional work. In addition, a special issue of the journal Microwave Review, a publication of Yugoslav MTT Chapter, was published for this occasion and presented during this session. Furthermore, an exhibition devoted to Nikola Tesla, named: "Nikola Tesla - Experiments in Colorado Springs", was organized during the conference.

The second special session was held on the occasion of 80th birthday of Professor Jovan Surutka, a member of Serbian Academy of Science and Art and an eminent scientist in the field of electromagnetics. This session involved the presentation of a special issue of International Journal "Facta Universitatis, Series Electronics and Energetics".

In addition, the technical program included two workshops. The first workshop was organized in the co-operation with Yugoslav IEEE MTT Chapter and its theme was *"New Trends in Microwaves"*. The speakers were two world-known names in the field of microwave technique and applied electromagnetics: professor Tatsuo Itoh from the University of California, Los Angeles, USA, and professor Ke Wu, from Ecole Polytechnique, Montreal, Canada. Professor Tatsuo Itoh focused to *"Smart Antennas"* and professor Ke Wu addressed the topic of *"Bridging the Gap between Field Theory and Design Model"*.

The topic of the second workshop, which was organized in the co-operation with Regional Chamber of Economy, was also attractive: "*Setting up Your Own E-Commerce Site on the Internet, for Small, Medium, and Large Businesses: Step by Step (Version for Engineers, Managers, and Educators)*". The lecturer was professor Veljko Milutinovi} from the University of Belgrade, Yugoslavia.

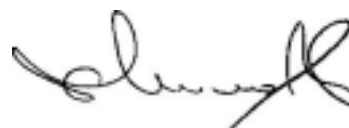
Two round tables took place at the conference. The topic of the first round table was "*Broadcasting Regulations*" and it was of a great interest of the wide audience, concerning the current transition in Yugoslavia and a need for establishing the new telecommunication policy. The second round table "*Strategy of industrial development of electronics, telecommunications and informatics*" was focused on current and future status of domestic companies and projects in the fields covered by the conference topics. The special guest of this round table was Minister for Science, Technology and Development of Republic of Serbia, who emphasized a need for interconnecting and co-operating with foreign partners in the industries and research institutions.

The Conference was accompanied traditionally by an exhibition of research results and industrial products related to the Conference topics. This was an occasion for 27 exhibitors to make many contacts with people who work in the field of broadcasting, telecommunication equipment, etc. In addition, several companies' commercial presentations were performed.

TELSIKS 2001, gathering the workers in the field of telecommunications, was a convenient 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 most participants' opinions the conference was very successful. The impressions were very good both of the professional part and of the rich social program. It was concluded that TELSIKS has become one of the most important international events in the region in the field of telecommunications.

*Chairman of TELSIKS 2001
Prof. Bratislav Milovanovi}*





*Opening Session Executive Council (from left to right):
T. Itoh, A. Marin-i}, B. Milovanovi}, K. Wu and J. Surutka*



Roberto Blois, Deputy Secretary General of the ITU, speaks at Plenary Session



Detail from Workshop: Prof. Tatsuo Itoh gives his lecture focused to smart antennas



From the exhibition: "Nikola Tesla - Experiments in Colorado Springs"



*A picture with guests (from left to right):
Prof. Aleksandar Marin-ij, Prof. Tatsuo Itoh,
Prof. Bratislav Milovanovi} (chairman) and Prof. Ke Wu*



Exhibition of the electronic equipment and products



Prof. Dr. Dragan Domazet, Serbian Minister for Science, Technologies and Development speaks at the round table.



Musical performance for the Conference attendees



Social program was unforgettable - moments of relaxation