

30 Years' Long Tradition of the TELSIS Conference



The 16th TELSIS Conference which is held in Niš at the Faculty of Electronic Engineering, University of Niš, Serbia from 25th to 27th October 2023 is successfully concluded, and we could not be more delighted with the results and outcomes.

This year TELSIS celebrates a great jubilee – 30th anniversary of existence, and it was an honor to share this journey with all participants.

The first conference that had the status of a domestic conference with international participation, held in October 1993, was the first scientific conference in the field of telecommunications in Serbia after the breakup of Yugoslavia. In a short period of the next four years, it became an international scientific IEEE conference and over time became one of the leading scientific conferences in the field of telecommunication and information technologies and systems in Central and South Eastern Europe. The Conference aim has always been to provide a professional and scientific forum for engineers and research scientists from universities, research centers, and industry. The Conference has always provided a broad base for exchanging scientific and professional information and looking at new trends in this very dynamic area.

The great success of TELSIS conferences was significantly contributed by: national Society for Microwave Technique, Technologies and Systems (MTTC) as a co-organizer of the conference, IEEE Serbia and Montenegro MTT-S Chapter through continuous support and scientific journal Microwave Review by publishing the best papers from the conference in modified and expanded versions. It is important to point out that all the mentioned entities were founded thirty years ago, that they acted synergistically and that over time they achieved results that significantly influenced the development of telecommunications and information technologies in Serbia.



TELSIS 2023 team (from left to right): Marija Milijić, Jugoslav Joković, Ksenija Pešić, Tijana Dimitrijević, Biljana Stošić, Bratislav Milovanović, Zlatica Marinković, Nebojša Dončov, Zoran Stanković, Aleksandra Djorić, Aleksandar Atanasković, Olivera Pronić-Rančić and Nataša Maleš Ilić

Throughout its 30 years of existence, the TELSIS Conference has not only focused on top scientific results but also on organizing accompanying activities, such as professional workshops aimed at professionals working in current fields. For several years in a row, an exhibition of electronic equipment and systems was held as an accompanying event of TELSIS. The exhibitions were attended by manufacturers and distributors of electronic equipment in the field of satellite, cable and radio systems, as well as from other related fields of telecommunications. Over the years, round tables have been organized that have been an exceptional opportunity to meet all experts interested in certain areas of telecommunications in one place. TELSIS has recently started organizing tutorials so that conference

participants have the opportunity to get acquainted with the latest trends and current technological challenges in the field of telecommunications and information technologies.

In addition to the scientific character of the Conference, the friendly hosts of the TELSISKS team would always try to enable the participants to have a pleasant time and get to know the faculty, the city and the surrounding area, folklore, music, and customs of the Niš region.

The 16th TELSISKS Conference officially starts with the Opening Ceremony on Wednesday, October 25, 2023. After a welcome speech of Prof. Bratislav Milovanović, the conference general chair and chair of the Society for Microwave Technique, Technologies and Systems, Serbia, the conference participants and guests were addressed by Prof. Nebojša Dončov, the conference TPC chair from University of Niš, Serbia, Prof. Zoya Popović from University of Colorado, Boulder, USA, and Prof. Maurizio Bozzi, the 2023 IEEE MTT-S president elect from University of Pavia, Italy. The address speech was also given by Prof. Mladen Koprivica, the chair of Serbia and Montenegro IEEE Section, University of Belgrade, Serbia, Prof. Boban Veselić, the vice-dean of the Faculty of Electronic Engineering, University of Niš, Serbia, Prof. Dragan Antić, the rector of the University of Niš, Serbia, and Prof. Miroslav Trajanović, state secretary, Ministry of Science, Technological Development and Innovations of the Republic of Serbia.



Opening ceremony Prof. Nebojša Dončov, Prof. Zoya Popović, Prof. Maurizio Bozzi and Prof. Bratislav Milovanović

At the end of the ceremonial opening, the Organizing Committee of the TELSISKS 2023 conference, on the occasion of the 30th anniversary of the establishment and existence of the TELSISKS conference, presented prof. Milovanović with a plaque for his exceptional contribution to the organization of the TELSISKS conference.



Awarding the plaque to the Prof. Milovanović by Prof. Dončov

After the Conference opening and the welcome cocktail, two plenary lectures were given. The first one titled *Microwave Sensors: Novel Techniques, Topologies, and Manufacturing Technologies* was given by Prof. Maurizio Bozzi from the University of Pavia, Italy, and the second one titled *Microwave Radiometry for Measuring Internal Body Temperature* by Prof. Zoya Popović from the University of Colorado Boulder, USA.

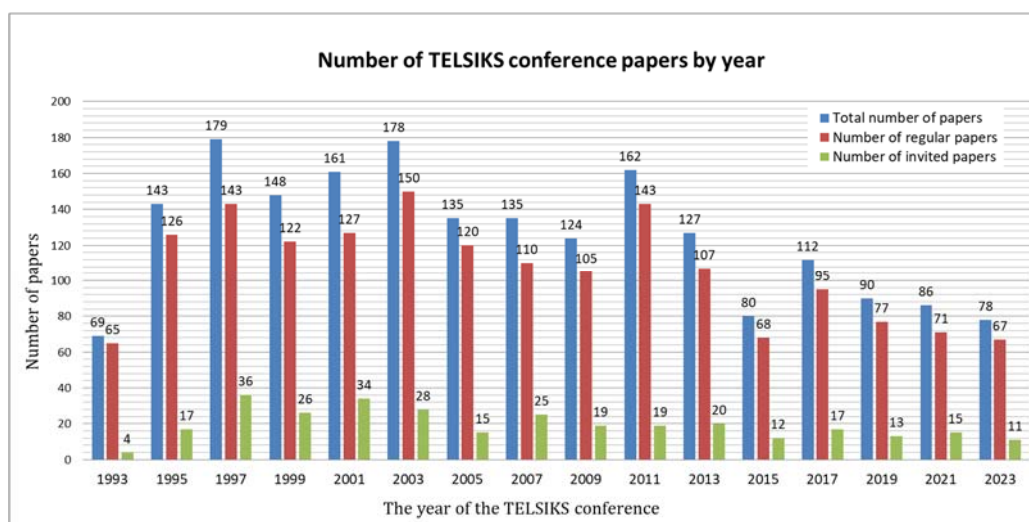


Prof. Maurizio Bozzi, University of Pavia, Italy

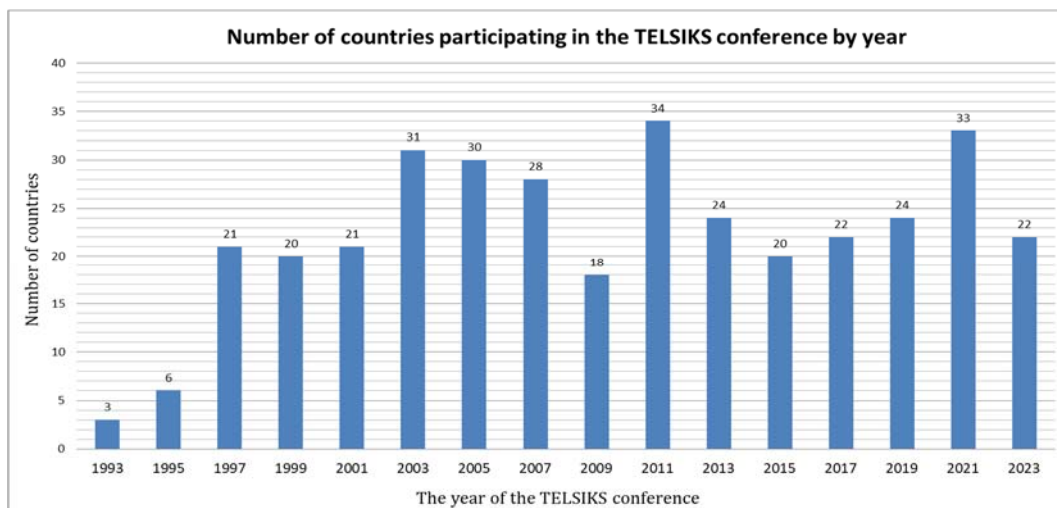


Prof. Zoya Popović, University of Colorado, Boulder, USA

Every effort has been made to create a program that will encourage dialogue within an academic community from all over the world. This year, according to the decision of the International Reviewer Board, among all submitted scientific or application-oriented contributed papers, 78 papers were accepted. Out of this number, 76 papers have been arranged in 10 oral sessions and 13 in one poster session. Among all contributions, there are two plenary lectures and 10 invited keynote lectures prepared by experts from various fields of telecommunications who have been invited to participate in the Conference. The invited speakers were Prof. Maurizio Bozzi, *University of Pavia, Italy*; Prof. Zoya Popović, *University of Colorado, Boulder, USA*; Prof. Olga Borić-Lubecke and Prof. Victor Lubecke from *University of Hawaii at Manoa, USA*; Prof. Jacopo Iannacci, *Fondazione Bruno Kessler, Trento, Italy*; Prof. Matteo Bruno Lodi, *University of Cagliari, Italy*; Prof. Jialin Cai, *Hangzhou Dianzi University, China*; Prof. Ana Vuković, *University of Nottingham, UK*; Prof. Vasyl Martsenyuk, *University of Bielsko-Biala, Poland*; Prof. Dejan Drajić, *University of Belgrade, Serbia*, and Prof. Aleksandar Jevremović, *Singidunum University, Belgrade, Serbia*.



The conference papers will be submitted to the IEEE Conference Publication Program (CPP) and the IEEE Xplore digital library. This year's participants came from 23 countries as follows: Austria, Bosnia and Herzegovina, Bulgaria, China, Colombia, Croatia, France, Hungary, India, Italy, Montenegro, North Macedonia, Oman, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Ukraine, United Kingdom, USA.



Promotion of the brochure *Towards Jubilee - 30 years of TELSIS Conference* (Editor: Dr. Tijana Dimitrijević) was organized on Wednesday, October 25, 2023. As part of this promotion, in addition to the Editor of this brochure, professors and scientists who have been involved in the TELSIS conference for many years gave appropriate speeches. Prof. Vera Marković, Prof. Olga Borić-Lubecke and Dr. Branka Jokanović, pointed out the very important impact that the TELSIS conference had on the development of science and technology in the field of information and communication technologies during the previous years, and proposed guidelines for further successful work.



Promotion of a special brochure on the occasion of the 30th anniversary of the TELSIS Conference:
Prof. Bratislav Milovanović, Dr. Tijana Dimitrijević and Prof. Vera Marković



Session *RF and Microwave Techniques 1* chaired by Dr. Boro Reljić (Austria) and Prof. Nataša Maleš-Ilić (Serbia)

Within this conference edition, three special sessions with papers dedicated to current scientific and professional trends in the field of information and communication technologies were organized:

- *IoT Applications in Modern and Emerging Technologies* (Thursday, October 26, 2023)
Organizer: Prof. Dejan Drajić, School of Electrical Engineering/Innovation center, University of Belgrade, Serbia
- *Setting up the Applied Artificial Intelligence Learning Requirements* (Thursday, October 26, 2023)
Organizers: Prof. Vasyl Martsenyuk, University of Bielsko-Biala, Poland and Prof. Olivera Pronić-Rančić, University of Niš, Serbia
- *Doppler Radar Sensing of Close-Range Motion for Healthcare, Assistive, and Industrial Applications* (Friday, October 27, 2023)
Organizers: Prof. Olga Boric-Lubecke, University of Hawaii at Manoa, USA and Prof. Victor Lubecke, University of Hawaii at Manoa, USA

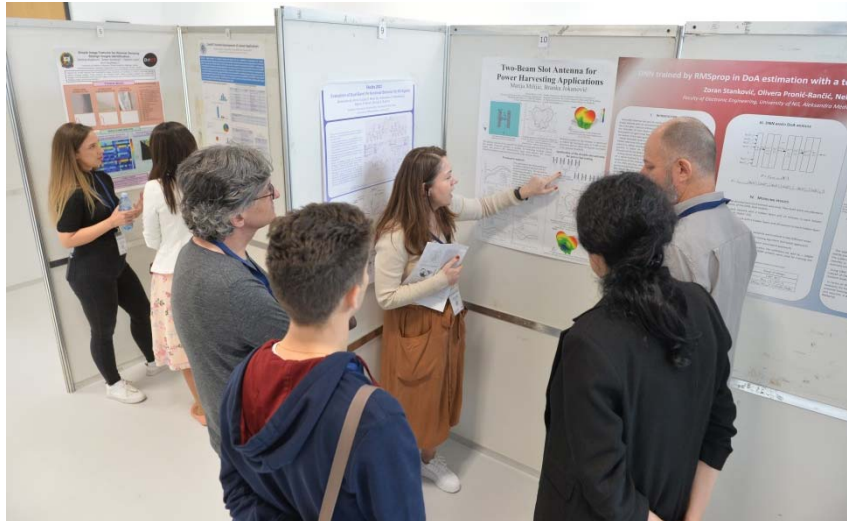
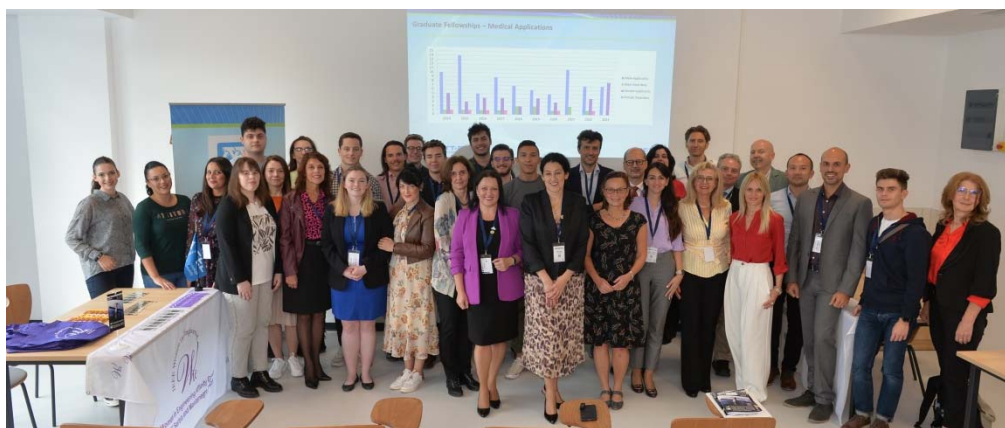


Special session *Setting up the Applied Artificial Intelligence Learning Requirements*



Special session *Doppler Radar Sensing of Close-Range Motion for Healthcare, Assistive, and Industrial Applications*

In the scope of the Conference, an attractive event - *Women in Microwaves* is organized jointly by *Serbia and Montenegro IEEE MTT-S Chapter* and *Women in Engineering (WiE) Affinity Group*. The event was very well attended and the report is given in this issue of *Microwave Review* journal.

Poster session *Information and Communication Technologies*

Women in Microwaves: Speakers and audience

The IEEE Microwave Theory and Technology Society (MTT-S) each year carefully selects a group of Distinguished Microwave Lecturers (DMLs). Therefore, DML program offers a list of speakers who are internationally recognized experts and technical leaders in their fields within the Society. The DMLs are available to present talks to local chapters world-wide and serve as ambassadors for the Society. For this occasion, *Serbia and Montenegro IEEE MTT-S Chapter* has invited Prof. Changzhi Li from Texas Tech University, USA to give a talk *Portable Radar Systems at the Human-Microwave Frontier: Life Activity Sensing and Human Tracking*.



DML speaker: Prof. Changzhi Li

In addition to DML program, MTT-S offers the Speakers Bureau (SB) program as another technical service to its members. The speaker to give a SB talk at the TELSIS conference requested by Serbia and Montenegro MTT-S Chapter was Prof. Luigi Boccia, from University of Calabria, Italy. The talk was *Antenna Systems and Integration Technologies for Non Terrestrial Networks*.



SB speaker: Prof. Luigi Boccia

In addition to the scientific part, a conference program includes rich social program. The official opening of the Conference was followed by guitar soloist, Damir Blagojević, student of the Faculty of Arts, University of Niš, Serbia who performed Astor Piazzolla- Invierno Porteno. Sightseeing tour was organized after the working part of the second Conference day, on Thursday, October 26, 2023. The tour introduced the participants to the historical heritage of Niš, the birth place of the Roman emperor Constantine the Great. Within the sightseeing tour the participants visited Archaeological Site Mediana (an important archaeological site from the late Roman period – a luxurious residence with a highly organized economy), Monument Scull Tower (unique monument in the world is 5 meters tall and it has inbuilt 952 human heads, raised by the Turks in 1813, after the defeat of the Serbian rebels led by Stevan Sindelić on Čegar, on May 31, 1809), The Fortress of Niš (dating back to the Turkish period) and street „Kazandžijsko sokače“ (the only preserved part of the old Niš bazaar built in the first half of the 18th century). The crown of leisure activities and always remembered for its fantastic atmosphere is the Gala Dinner during which international participants had the opportunity to taste Serbian specialties and try their skills in playing the “kolo”. This year, Gala dinner took place in “Paris Lux” restaurant, Niš, on Thursday, October 26, 2023.



Archaeological Site Mediana

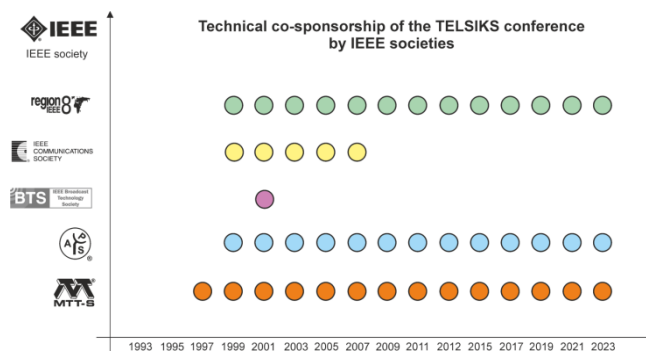


Niš Fortress



Great teachers and even better students playing the Serbian “kolo”

We would like to acknowledge the *Antennas and Propagation Society (AP-S)*, *Microwave Theory and Technology Society (MTT-S)*, and *IEEE Region 8*, as well as *Serbia and Montenegro IEEE Section* and *Serbia and Montenegro IEEE MTT-S Chapter* for their technical sponsoring the TELSISKS 2023. Technical co-sponsorship of the TELSISKS editions by IEEE Societies differs since 1997, but support from MTT-S, AP-S and Region 8 is constant.



Technical co-sponsorship by IEEE societies vs. year



Once again, this year marks the 30th Anniversary of TELSISKS Conference! All of this would not be possible without the great people! Therefore, this was the occasion for us to welcome our speakers and participants and to thank our members for their involvement in the success of the Conference. We wish to express our gratitude to members of the Technical Program Committee (TPC), Organizing Committee, Executive Committee, sponsors and to all the people who have contributed to making this event possible. We are deeply grateful to the members of the Review Board, who devoted their time to evaluate submitted papers helping the Conference TPC to make a high-level scientific program. Thanks are also extended to the Chairs of the sessions and authors of all papers for their contribution to the quality of the Conference.

During this Conference edition, we shared the story of the evolution of TELSISKS conference. The conference has constantly adapted by innovating and investing, which has made it possible to become a high-level scientific conference in the South-East Europe – a TELSISKS brand. That was a great adventure possible with the commitment of all our members and close relationship with our invited speakers that we all thank again for coming in Niš this year.

Looking forward to the next TELSISKS Conference edition – TELSISKS 2025!

Dr. Biljana Stošić, Prof. Dr. Zoran Stanković, Prof. Dr. Nebojša Dončov
Faculty of Electronic Engineering, University of Niš, Serbia