

Summary of 61st ETRAN and 4th IcETTRAN Meetings

Serbian Society for Electronics, Telecommunications, Computers, Automatic Control and Nuclear Engineering (ETTRAN) is the oldest and the most significant Serbian professional society of engineers. ETRAN Society started organizing annual meetings in 1955. ETRAN meetings attracted engineers from different fields of electrical, electronic, computer, automatic control and nuclear engineering of countries in the Western Balkans and broader. These meetings were platforms for presenting new knowledge and innovations and opportunities to meet colleagues and start a collaboration.

In 2017 two annual meetings have been organized in parallel: ETRAN 2017 - the 61st national conference with international participation for electronics, telecommunications, computers, automatic control and nuclear engineering, and IcETTRAN 2017 - the 4th international conference on electrical, electronic and computing Engineering). Kladovo, one of the famous tourist destinations in Serbia on the Danube River, hosted the meetings between 5th and 8th June, 2017.

In total 295 papers from 29 countries prepared by 725 authors were submitted for the conferences and 259 accepted and published after the meetings in the proceedings that are available on the web (www.etrans.rs). The IcETTRAN2017 and ETRAN2017 proceedings comprise 171 and 90 papers, respectively. All articles were peer-reviewed by two experts in the field. The final paper selection was entrusted to the Steering Committee and the Technical Program Committee of the conferences consisting of prominent researchers from 11 countries.

ETTRAN conferences traditionally are organized in 16 regular sections (tracks) covering particular engineering fields. Each of the tracks includes at least one invited paper. At ETRAN 2017 meetings the invited speakers were: Alexandru Salceanu, Iasi, Romania; Branka Jokanović, Belgrade, Serbia; Dragan Manić, Neuchâtel, Switzerland; Eleni Karatza, Thessaloniki, Greece; Jaroslaw Makal, Byalistok, Poland; Jean-Philippe Groby, Le Mans, France; Marina Šokčić-Kostić, Alzenau, Germany; Nebojša Malešević, Lund, Sweden; Petar Grbović, Roma, Italy; Radu-Emil Precup, Timisoara, Romania; Sergey Makov, Rostov on Don, Russia; Slobodan Bojanić, Madrid, Spain; Uwe Haass, Munich, Germany; Vincenzo Stornelli, L'Aquila, Italia; Željka Nikitović, Belgrade, Serbia.

During the opening ceremony, following the tradition, Prof. Dr. Bratislav Milovanović presented the award from the foundation Dr. Aleksandar Marinčić to the group of authors Anđelija Ilić, Branko Bukvić, Milan Ilić, Đurađ Budimir for the paper "*Graphene-based Waveguide Resonators for Submillimeter-wave Applications*" published in Journal of Physics D: Applied Physics, vol. 49, no. 32, pp. 325105 (14), 2016.

Four special sessions organized during the (Ic)ETTRAN 2017 conferences were recorded and are available online at: https://www.etrans.rs/2017/IcETTRAN/Recorded_events/.

The session "Integration of the Serbian engineering R&D into European research area" was moderated by academician Dejan B. Popović. Dr. Gordana Popović, European Research Council Executive Agency, European Commission, Brussels, Belgium and from Technical University Vienna, Austria presented the methods related to the integration of the Serbian engineering R&D into European Research Area. Prof. Dr. Vladimir Popović, State Secretary at the Serbian Ministry of Education, Science and Technological Development gave an overview of Serbian innovation system (weaknesses/advantages) and proposed how to move on. Prof. Dr. Ivanka Popović, Vice-Rector Belgrade University, spoke about bridging the gap between academia and industry. Dr. Ivan Rakonjac, Managing Director of the Innovation Fund of Serbia, pointed the significance and results of the Innovation Fund of Serbia for the translation of ideas to innovations. Dr. Uwe Haass, former Secretary-General of euRobotics AISBL München, Germany spoke about the integration of Western Balkans Engineering R&D into European Umbrella.



Participants of the ETRAN conferences during the opening session.

Three young musicians (front row) performed at the beginning as part of the friendly welcome from the local organizers.

The second special session, "*Large State Systems Privatization: How to Preserve Serbia's Resources*" was moderated by Dr. Predrag Petrović, IRITEL, Belgrade, member of the Academy of Engineering Sciences of Serbia, Prof. Dr. Jovan Dušanić gave talk "*Large State Systems Privatization: The Road to Neo-colonialism*". Mr. Boško Buha, Director of Energy Production Directorate in the Electric Power Industry elaborated topic "*Is Serbia's Electric Power Industry Generally for Sale?*" in conclusion the moderator presented "*Telecom as Regional Leader*".

The third special session was devoted to "*Funding for the Productive and Effective R&D: Smart Specializations in Serbia*". Dr. Viktor Nedović, Ministry of Education, Science and Technological Development of Serbia gave a talk on "*Smart Specializations: The Path of Intensive Development on the Steps Towards Europe*". Dr. Mirjana Kranjac, Provincial Secretariat for Economy and Tourism of Vojvodina, explained: "*How to Ensure the Sustainable Development of Serbia: Supporting Innovation Entrepreneurship?*".

Within the fourth Special session two eminent Serbian researchers, Dr. Predrag Petrović from IRITEL Institute Belgrade, and Dr. Aleksandar Nešić from IMTEL Communications a.d. Belgrade presented their opinions on "*How to Preserve the Reputation of Science and Research in Serbia*".

The Thirteenth Annual Workshop nanoETTRAN chaired by Zoran Jakšić has been organized in parallel with the Conference. The meeting of the Society of MTTS was traditionally arranged as part of the session for microwave technologies and systems.

After the Conference closing the Steering and Program Committee decided to award 13 papers in the category "Best Section Paper":

- Miloš Stanković, Srđan Stanković, Karl Henrik Johansson: "A New Drift Correction Algorithm for Distributed Time Synchronization" (AUTOMATIC CONTROL)
- Luka Lopin, Nikola Lepojević: "Multi-axis Drive DC Link Current Minimization" (POWER ENGINEERING)
- Branka Stojanović, Vojislav Lukić, Saša Milićević, Srđan Stanković: "Maritime Surveillance Image Enhancement: A Comparison and Improvement of Dehazing Techniques" (ELECTRIC CIRCUITS AND SYSTEMS AND SIGNAL PROCESSING)
- Pavle Jovanović, Dušan Grujić, Milan Savić, Lazar Saranovac: "Method for Measuring the Settling Time of Integrated PLL Using Spectrum Analyzer" (ELECTRONICS)
- Vojkan Davidovic, Albena Paskaleva, Dencho Spassov, Elzbieta Guziewicz, Tomasz Krajewski, Snežana Golubović, Snežana Djoric-Veljković, Ivica Manić, Danijel Danković, Ninoslav Stojadinović: "Investigation of Multilayer HfO₂/Al₂O₃ Structures for Memory Devices" (in Serbian) (MICROELECTRONICS AND OPTOELECTRONICS)

- Stefan Ilić, Vesna Paunović: "Application of Curcumin in Dye-Sensitized Solar Cells" (in Serbian) (NEW MATERIALS IN ELECTRICAL AND ELECTRONIC ENGINEERING)
- Ivan Povazan, Marko Krnjetin, Miodrag Đukić, Miroslav Popović: "Implementation of Invariant Code Motion Optimization in an Embedded Processor Oriented Compiler Infrastructure" (COMPUTING AND INFORMATION ENGINEERING)
- Vladimir Krstić, Nada Bogdanović: "On Structure – Criterion Switching Control for Self-Optimized Decision Feedback Equalizer" (TELECOMMUNICATIONS)
- Marjan Urekar, Đorđe Novaković, Bojan Vujičić, Platon Sovilj, Marina Bulat: "A Composite Milliohm Meter for Measurement of Precisioncurrent Shunts in Industrial Environment" (in Serbian) (METROLOGY)
- Miodrag Milošević, Milan Petrović „Methods for Non-destructive Radiological Characterisation by in Situ Spectrometry Measurements“ (NUCLEAR ENGINEERING AND TECHNOLOGY)
- Ivaylo Stoychev Hristev, Snejana Georgieva Pleshkova: "Method for Objective Measurements of Acoustic Scattering in Closed Space Using Finite Differences in Tunnel Domain Authors" (ACOUSTICS)
- Nikola Bošković, Branka Jokanović: "Modified Patch Antenna with an Extended Working" (in Serbian) (ANTENNAS AND PROPAGATION)
- Siniša Jovanović, Bratislav Milovanović: "Concept of Dual-Band Bandpass Filters with Antiparallel Configuration" (MICROWAVE TECHNIQUE, TECHNOLOGIES AND SYSTEMS)

Besides 15 papers were selected as the Best Young Researcher's Paper:

- Vladimir Mitić, et al.: "Intelligent Mobile Robot for Workspace Mapping" (CONTROL SYSTEMS)
- Stevan Cvetičanin, et al.: "Frequency Analysis of Fractional Transmission Line Model" (in Serbian) (ELECTRIC CIRCUITS AND SYSTEMS AND SIGNAL PROCESSING)
- Đorđe Glavonjić et al.: "Person Detection Counter Based on NM-wave Radar Technology" (ELECTRONICS)
- Igor Jovanović et al.: "A Matlab-Simulink Model of a Langevin's Ultrasonic Power Transducers" (ELECTRONICS)
- Antonina Aleksić et al.: "The Pendulum Test for Assessing Spasticity Based on Smart Phone Movie and Passive Markers" (BIOMEDICINE ENGINEERING)
- Dušan Jakovljević et al.: "Hexagonal Silicone Nanoring with Zigzag Edges in Perpendicular Magnetic Field" (in Serbian) (MICROELECTRONICS AND OPTOELECTRONICS)
- Đorđe Pešić et al.: "The Program Segment Assembling System for Examination in the Field of Algorithmic Time Complexity" (in Serbian) (COMPUTING AND INFORMATION ENGINEERING)
- Dragan Brkin et al.: "A Solution of Cloudsim Simulation of Distributed STM" (in Serbian) (COMPUTING)
- Danilo Stanojević et al.: "The Impact of Quality of Service Parameters to the Subjective and Objective Video Quality Assessment" (in Serbian) (TELECOMMUNICATIONS)
- Stefan Mirković: "Improvement Existing Method of Asynchronous Sampling at Determining of RMS Value" (in Serbian) (METROLOGY)
- Filip Haralambos Apostolakopoulos et al.: "Comparison of the Angular Response of Thermoluminescent and Optically Stimulated Luminescent Personal Dosimeters" (NUCLEAR ENGINEERING AND TECHNOLOGY)
- Marko Ličanin et al.: "Design of the Specialized Tube for Sound Transmission Loss Measurements" (ACOUSTICS)
- Jelena Dinkić, Miodrag Tasić, Antonije Đorđević: "Investigation of Natural Transmission Zeros of Printed Combline Filters using Electromagnetic Simulators" (ANTENNAS AND PROPAGATION)
- Ivan Petrić et al.: "Real-time Speed Estimation of Induction Machines Using Rotor Slot Harmonics" (POWER ENGINEERING)
- Vojislav Milošević et al.: "Scattering Parameters for Transmission Line Coupled with Antisymmetric Resonators" (in Serbian) (MICROWAVE TECHNIQUE, TECHNOLOGIES AND SYSTEMS)

Besides excellent presentations, the annual conferences exhibited the spirit of friendship which is from the beginning the trademark of ETRAN Society meetings. The communications have been strengthened during the cruising on the Danube River and the social party in a free space of the Fetislam Fortress, 1524 with local specialties and live music.



Company Academic Mind from Belgrade organized most of the social activities and provided technical support for the Conferences.

Academic Mind organized the book exhibition during the Conferences in the Lobby of the Hotel “Đerdap” where the meetings took place.

ETRAN and IcETRAN conferences were jointly organized with the Faculty of Electrical Engineering University of Belgrade and Institute of Technical Sciences of the Serbian Academy of Sciences and Arts. The meetings were supported by the IEEE.

Prof. Dr. Predrag Petković

Program Committee Chair of ETRAN and IcETRAN 2017 Conferences

The University of Niš, Faculty of Electronic Engineering

Academician Prof. Dr. Dejan B. Popović

President of the ETRAN Society, Belgrade

Serbian Academy of Sciences and Arts and the University of Belgrade