



11<sup>th</sup> International Conference on Electrical, Electronic, and Computing Engineering IcETRAN 2024
NIŠ, Serbia, June 3-6, 2024

# **FOURTH ANNOUNCEMENT & CALL FOR PAPERS**

https://www.etran.rs/2024/en/home-english

The IcETRAN and ETRAN conferences will be held in Niš, Serbia. The host is the University of Niš, Faculty of

Electronic Engineering, Niš (https://www.elfak.ni.ac.rs).









The IcETRAN Conference is sponsored by IEEE Region 8, IEEE Serbia and Montenegro Section, IEEE Bosnia and Herzegovina Section, IEEE S&M Section Chapter of the Microwave Theory and Technology Society, and IEEE S&M Section Chapter of the Computer Society.

All accepted and presented IcETRAN 2024 papers will be included into the IEEE Xplore Digital Library, and listed/cited through the SCOPUS, and the Web of Science.







Scopus

#### **ORGANIZED BY:**

Society for ETRAN University of Niš - Faculty of Electronic Engineering, Niš

### **UNDER THE AUSPICES:**

Ministry of Science, Technological Development and Innovations of Republic of Serbia (NITRA)

### **TECHNICAL SPONSORS:**

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# **TOPICS (Sections)**

- Electronics (ELI)
- Telecommunications (TEI)
- Computing and information engineering (RTI)
- Automation (AUI)
- Nuclear engineering and technology (NTI)
- Acoustics (AKI)
- Antennas and propagation (API)
- Electric circuits and systems and signal processing (EKI)

- Power engineering (EEI)
- Biomedical engineering (BTI)
- Metrology (MLI)
- Microelectronics and optoelectronics (MOI)
- Microwave technique, technologies, and systems (MTI)
- New materials in electrical and electronic eng. (NMI)
- Robotics and flexible automation (ROI)
- Artificial intelligence (VII)
- Education (EDUI)

### **IMPORTANT DATES**

- January 31, 2024 Deadline for proposing special sessions, workshops, tutorials and inviting lecturers
- April 21, 2024 FINAL DEADLINE FOR PAPERS SUBMISSION
- April 25, 2024 Review process finalized, reviews sent back to authors
- April 28, 2024 Final (revised) versions of papers received
- May 3, 2024 Preliminary Program (Conference site)
- May 10 / May 24, 2024 Early Registration (Early Bird) for the conference
- June 2, 2024 Preliminary Proceedings (Conference site)
- June 3, 2024 OPENING SESSION OF THE ICETRAN 2024 AND ETRAN 2024 CONFERENCES

### **MANUSCRIPT SUBMISSION**

Papers are solicited for the ETRAN and IcETRAN Conferences presenting original theoretical or practical research results, the results of the application of theoretical methods in solving practical engineering problems, or descriptions of practical solutions or instrumentation. Only results not published or presented previously are acceptable. Besides the papers covering the fields of interest of particular sections of the Conferences, authors are encouraged to submit papers dedicated to education in the topics of interest for the sections of the two colocated conferences.

Students of Ph.D., master, and undergraduate studies are specially invited and will be stimulated to submit papers.

The detailed instructions for manuscripts preparation and template are on the ICETRAN 2024 conference site.

The prospective authors should use Comment the EasyChair conference management system

# **AWARDS**

**BEST PAPER AWARDS** (max 16) – Each ETRAN society section may award the best paper.

BEST YOUNG AUTHOR PAPER AWARDS - Each ETRAN society section may award the best young author's paper.



### **KEY NOTE LECTURES**

Prof. dr Georgi Dimirovski, UKIM, Skopje, Republic of North Macedonia (ICETRAN)

"Complex Networks and Systemic Structures: Synergies of Control, Communications and Computing via Šiljak's Dynamics Graphs"

Dr. Dragana Popovic Renella, SENIS Group, Baar, Switzerland (IcETRAN)

"Moving the Limits: Advancements in Magnetic Sensors and Instruments for Industry and Physics Laboratories"

Prof. dr Bratislav Milovanović, Univerzitet Singidunum, Centar Niš, Srbija, prof. dr Predrag Petković, Univerzitet u Nišu, Niš, Srbija, dr Milan Ranđelović, Naučno tehnološki park, Niš, Srbija

"Od Grada elektronike ka Gradu naprednih tehnologija" (ETRAN)

Prof. dr Bratislav Milovanović, Univ. Singidunum, Centar Niš, Srbija, dr Milan Ranđelović, Naučno-tehnološki park, Niš, Srbija "Prilog obeležavanju jubileja: 170 godina od rođenja Mihajla Idvorskog Pupina" (ETRAN)

## **INVITED LECTURE**

Miroslav Pajić (IcETRAN, Sekcija), Duke University, Durham (NC), USA (IcETRAN - ROI)

"Securing Autonomy in Contested Environments"

#### **INVITED PAPERS**

**Stevo Božinovski<sup>1</sup>, Mihail Sestakov<sup>2</sup>**, and **Prof. Liljana Bozinovska<sup>1</sup>,** <sup>1</sup>South Carolina State University, Orangeburg (SC), USA, <sup>2</sup>Pelsi Group, Sydney, Australia

"Steps toward an IEEE Milestone achievement for a pioneering work in science" (IcETRAN - Plenary)

Veljko B. Petrović, Dinu Dragan, and Dušan Gajić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia

"Accidental Centralization: Pitfalls of Blockchain-Based Project Architectures" (IcETRAN - RTI)

**Aleksander Sadikov**<sup>1,2</sup>, **Marta Malavolta**<sup>1</sup>, **Andrea De Gobbis**<sup>2</sup>, and **Vida Groznik**<sup>1,2</sup>, <sup>1</sup>Artificial Intelligence Laboratory, Faculty of Computer and Information Science, University of Ljubljana, Slovenia; <sup>2</sup>Neus Diagnostics d.o.o., Ljubljana, Slovenia

"Design of eye-tracking test batteries for early detection of cognitive (and motor) impairments" (IcETRAN - BTI)

Nikola Basta, Nemanja Grujičić, Aleksa Madžarević, University of Belgrade, School of Electrical Engineering, Belgrade, Serbia "Enhancement of Circuit Theory Course Using Low-Cost Software Defined Instruments" (ICETRAN - EKI)

Jelica Radomirović, Sara Čubrilović, Zvezdana Kuzmanović, Zoran Banjac, and Milan Milosavljević, Institute VLATACOM, Belgrade, Serbia

"Perfectly secret system for voice transmission based on common randomness" (ICETRAN - VII)

Mare Srbinovska<sup>1</sup>, Sijce Pechkova<sup>2</sup>, Aleksandar Pechkov<sup>2</sup>, Maja Celeska Krstevska<sup>1</sup>, Aleksandra Krkoleva Mateska<sup>1</sup>, Pavel Dimovski<sup>2</sup>, and Vesna Andova<sup>1</sup>, <sup>1</sup>Ss Cyril and Methodius University, Faculty of Electrical Engin. and Information Technologies, <sup>2</sup>Ss Cyril and Methodius University, Faculty of Technology and Metallurgy, Skopje, Republic of North Macedonia

"A Comprehensive Study on Air Pollution Prediction in North Macedonia: Insights from LASSO Modeling" (ICETRAN - MTI) Dragan Olćan and Darko Ninković, University of Belgrade, School of Electrical Engineering, Belgrade, Serbia

"Machine learning in applied electromagnetics" (ICETRAN - API)

Jelena Krneta Nikolić, "Vinča" Inst. of Nuclear Sciences, Univ. of Belgrade–Nation. Inst. of the Rep. of Serbia, Belgrade, Serbia "Nuclear Robotics: Proof of concept for localization of contamination and a protocol for decontamination driven by robot" (IcETRAN - NTI)

Dragana Markushev, Institute of Physics, Zemun, Belgrade, Serbia

"How to use sound as a powerful tool for new material characterization" (IcETRAN – NMI)

Miljko Erić and Nenad Vukmirović, University of Belgrade, School of Electrical Engineering, Belgrade, Serbia

"Direct Localization of Multiple Acoustic Sources Using Distributed Microphone Arrays" (ICETRAN – AKI)

# **SPECIAL SESSIONS**

Special Session 1: Outlooks and Challenges in Urban Solar Applications (ICETRAN)

Session organizers: **Milutin Petronijević**, *University of Niš*, *Faculty of Electronic Engineering*, *Niš*, *Serbia* and **Ivana Radonjić Mitić**, *University of Niš*, *Faculty of Sciences and Mathematics*, *Niš*, *Serbia* 

Special Session 2: Transmission and distribution networks: configurations and solutions for the sustainable energy transition (IcETRAN)

Session organizer: **Manuela Minetti,** *University of Genoa, Dep. of Electrical, Electronic and Telecommunication Eng. and Naval Arch., Genoa, Italy* 



#### Special Session 3: Radars in interaction with humans and the environment (ICETRAN)

Session organizers: **Olga Boric-Lubecke,** IEEE Fellow, *University of Hawai'i at Manoa, Honolulu, HI, USA, and* **Milica Janković,** *University of Belgrade, School of Electrical Engineering, Belgrade, Serbia* 

### Special Session 4: Self-Driving Cars and Artificial Intelligence (ICETRAN)

Session organizer: **Gyula Mester**, *Obuda University*, *Budapest*, *Hungary* 

## **PANEL SESSIONS/ROUND TABLE**

Round Table 1: "Obrazovanje kadrova iz oblasti elektrotehnike i računarstva u digitalnom okruženju" (ETRAN) Moderator prof. dr Zora Konjović, Univerzitet Singidunum, Beograd, Srbija

Authors, wishing to submit the papers within the special session or discussion for the panel session/round table, should contact corresponding session chairman or Prof. Dr. Platon Sovilj, the chairman of the Program Committee. The papers will be evaluated as regular ones would be.

## POST CONFERENCE PUBLICATION POSSIBILITIES

A Special issue devoted to selected papers of the 11<sup>th</sup> IcETRAN conference will be published by

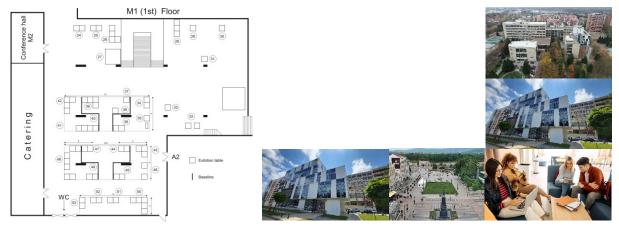
• Facta Universitatis, Series: Electronics and Energetics, <a href="http://casopisi.junis.ni.ac.rs/Index.php/FUElectEnerg">http://casopisi.junis.ni.ac.rs/Index.php/FUElectEnerg</a>, Published by the University of Niš.

The authors of the invited, awarded and specially selected papers will be called to submit a modified version of the manuscript for publication in international journals that cooperate with ETRAN society:

- Science of Sintering, <a href="http://ojs.itn.sanu.ac.rs">http://ojs.itn.sanu.ac.rs</a>, Published by ETRAN Soc., Belgrade (Web of Science, Scopus, Crossref, DOAJ; SJR Rank Q2; NITRA Rank: M22),
- Serbian Journal of Electrical Engineering, <a href="http://www.journal.ftn.kg.ac.rs">http://www.journal.ftn.kg.ac.rs</a>, Published by the FTN Čačak,
- Electronics Journal, <a href="http://els-journal.etf.unibl.org">http://els-journal.etf.unibl.org</a>, Published by ETF Banja Luka,
- Microwave Review, https://www.mtt-serbia.org.rs/microwave review, Published by the MTTS, Niš

#### **EXHIBITION**

The companies, enterprises, start-ups and all that have interest in the field of electrical, electronics and computer/software engineering are invited to present themselves in the IcETRAN/ETRAN 2024 accompanying Industry Day and Exhibition in the main hall. Around 300 participants (professors, Ph.D. researchers students, industry leaders,...) are expected. For more details, please contact the Exhibition Chair Prof. Milutin Petronijević.



### **CONTACT**

Conference: Ms. Mirjana Jovanić, Society for ETRAN, Kneza Miloša 9/4, 11000 Belgrade, Serbia

Phone: + 381 11 323-3957, +381 63 245-418

E-mail: office@etran.rs

Exhibition: Prof. Milutin Petronijević, Faculty of Electronics Eng., Niš, Serbia

E-mail: milutin.petronijevic@elfak.ni.ac.rs