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54th INTERNATIONAL SCIENTIFIC CONFERENCE ON  
INFORMATION, COMMUNICATION  
AND ENERGY SYSTEMS AND TECHNOLOGIES

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**27 - 29 June 2019, Ohrid,  
North Macedonia**  
[www.icestconf.org](http://www.icestconf.org)

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Organized by



Faculty of Technical Sciences, Bitola, North  
Macedonia



Faculty of Electronic Engineering, Niš, Serbia



Faculty of Communications and  
Communication Technologies, Sofia,  
Bulgaria

Under auspices of

Macedonian Ministry of Education and Science

In cooperation with:

Faculty of Tourism and Organizational Sciences – Ohrid

ICEST 2019 conference is supported by



**КОМОРА НА ОВЛАСТЕНИ АРХИТЕКТИ И  
ОВЛАСТЕНИ ИНЖЕНЕРИ**

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## WELCOME TO ICEST 2019

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Dear Colleagues,

On behalf of the Technical Program Committee it is my pleasure to invite you to attend the 54th International Scientific Conference on Information, Communication and Energy Systems and Technology ICEST 2019, which will be held from 27 to 29 June at the Faculty of Tourism and Organizational Sciences - Ohrid, North Macedonia.

The ICEST Conference gained its acronym as a successor of EIST Conference in 2002, when the Faculty of Electronics from Niš, Serbia, joined the Faculty of Communication and Communication Technologies from Sofia, Bulgaria and the Faculty of Technical Sciences from Bitola, North Macedonia, in organizing the series of Conferences.

As to the previous ICEST Conferences, we have papers and authors from institutions all over the world. This year we have 252 authors (and coauthors) from 14 countries with 102 scientific and application oriented papers for oral and poster presentations.

In spite of the tight Conference schedule I hope that there will be enough time for social activities which will enable further strengthening of the professional and personal relations among the ICEST participants for the benefit of the institutions and the countries they are coming from.

At last, in the name of the Conference Technical and Program Committee I want to express my gratitude to the authors and reviewers who have contributed to maintain the high standards for ICEST, and to all others who were involved in organization of the Conference.

I am sure that the beautiful and picturesque Ohrid will give you all, an inspiration for fruitful work and pleasant time during the ICEST Conference.

I am looking forward for seeing you in Ohrid.

**Prof. D-r Mitko Kostov**  
Conference Chairman

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## TECHNICAL PROGRAM COMMITTEE

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### GENERAL CHAIRMAN:

Mitko Kostov, St. Kliment Ohridski University, Bitola, N.Macedonia

### VICE CHAIRMEN:

Nebojša Dončov, University of Niš, Serbia

Kalin Dimitrov, Technical University of Sofia, Bulgaria

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Rumen Arnaudov, Technical University of Sofia, Bulgaria

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Jan Machac, Czech Technical University, Prague, Czech Republic

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Petar Popovski, Aalborg University, Denmark

Peter Planinšič, University of Maribor, Slovenia

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Stefan Stancescu, Polytechnic University of Bucharest, Romania

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Szilvia Nagy, University of Győr, Hungary  
Urban Burnik, University of Ljubljana, Slovenia  
Uwe Siart, Technical University of Munich, Germany  
Vincenzo Piuri, University of Milan, Italy  
Wojciech Krzysztofik, Wrocław University of Technology, Poland  
Wojtek Bock, University of Ottawa, Canada  
Zdenka Babić, University of Banja Luka, Bosnia and Herzegovina  
Zoran Jovanović, University of Niš, Serbia  
Zoran Stanković, University of Niš, Serbia

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## ORGANIZING COMMITTEE

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### **St. Kliment Ohridski University, Bitola, North Macedonia:**

M. Atanasovski, B. Arapinoski, G. Janevska, V. Dancevska, N. Mojsovska, J. Pargovski, M. Spirovski, I. Andreevski, D. Koltovska

### **University of Niš, Serbia:**

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## CORRESPONDENCE

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### **Conference Chairman:**

#### **Prof. Dr. Mitko Kostov**

St. Kliment Ohridski University, Bitola, N. Macedonia  
Makedonska Falanga 37, 7000 Bitola, N. Macedonia  
phone: +389 47 207 702  
e-mail: mitko.kostov@uklo.edu.mk

### **Technical Editor:**

**M. Atanasovski**, St. Kliment Ohridski University, Bitola, N. Macedonia  
e-mail: metodija.atanasovski@uklo.edu.mk

### **Secretary:**

**B. Arapinoski**, St. Kliment Ohridski University, Bitola, N. Macedonia  
e-mail: [blagoja.arapinoski@uklo.edu.mk](mailto:blagoja.arapinoski@uklo.edu.mk)

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## UPDATED INFORMATION

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Updated information can be obtained from the official  
Conference web site:

<http://www.icestconf.org>

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## ICEST HISTORY

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The ICEST Conference appears to succeed a series of conferences started from 1963 under the name "Day of the Radio". In 1977 the name of the Conference was changed into "Communication, Electronic and Computer Systems". Since 2000 it has become an international conference under the name EIST (Energy and Information Systems and Technologies). The first two EIST Conferences were successfully organized by the Faculty of Communications and Communication Technologies Sofia and the Faculty of Technical Sciences Bitola.

In 2002, for the first time, the Faculty of Electronic Engineering Niš has accompanied the Conference organizers. Also, the Conference changed its name becoming ICEST (International Scientific Conference on Information, Communication and Energy Systems and Technologies). Since then, on a rotational principle, the conference has been organized by the Faculty of Telecommunications, Technical University of Sofia, Bulgaria, the Faculty of Electronic Engineering, University of Niš, Serbia, and the Faculty of Technical Sciences, St. Kliment Ohridski University, Bitola, N. Macedonia. This year host of the conference is the Faculty of Technical Sciences Bitola.

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## VENUE

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ICEST 2019 will be held from June 27 through June 29, Faculty of Tourism and Organizational Sciences - Ohrid, North Macedonia.

Ohrid is a city in the Republic of N. Macedonia with continuity and around two and a half millenniums old marks of existence. Within the very heart of the present city of Ohrid, the antique city of Lichnid lies, significant and rich, as is its successor. The metamorphoses of the antique Lichnid into medieval Ohrid lasted for several centuries (VI-IX), thus being created one of the most significant medieval cities on the Balkan.

Through the pages of the Ohrid saga we will find the memories of the birth of the Slavic literacy and culture in the works of St. Clement and St. Naum, students of Thessaloniki brothers Sts. Cyril and Metodij. St. Clement is worshiped as a patron of the city, and his three-decade work in the city (886-916) initiated the foundation of the Clement Slavic University. The Ohrid saga cherries the memories of the Samuel Empire, too, as its capitol at the beginning of the XI century. It nourishes the testimonies of the Ohrid Archbishopry - a significant church organization, which pedestal was shared by influential philosophers, writers and theologians. Its worthy successor is the present Macedonian Orthodox Church. The Ohrid saga was composed by the stormy pages of the past, and the testimonies for some of them have reached the present days; the Monastery of St. Clement - St. Pantelejmon, the Monastery of St. Naum, the cathedral church of St. Sophia, the church of St. Clement, the church of St. John the Baptist, as many other pieces of art: frescoes, icons, manuscripts, all of them woven in the City of UNESCO - Ohrid.

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## CLIMATE

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MICRO CLIMATE (local climate):

MODIFIED MEDITERRANEAN (maritime) - TEMPERATE CONTINENTAL

(because of the high mountains - 2000m and altitude - 695m there is also mountain climate)

distance from Adriatic Sea.....110 km

annual average air temp ..... 11°C

winter average temp..... 2.7°C

summer average temp..... 19.6°C

absolute maximum.....35.5°C in July

insolation (sunny hours).....2300 h per year

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## REGISTRATION AND INFORMATION DESKS

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The Registration Desk, Information Desk, as well as Secretariat Office, will be open during the following hours:

Thursday	June 27	09.00 - 18.30
Friday	June 28	09.00 - 18.30

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## LANGUAGE

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Official language of the Conference will be English.

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## CONFERENCE FEE

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The registration fee includes publication of one paper in the Conference proceedings, conference kit and conference dinner.

**Authors: 100 euro or 6.150MKD denars**

**Additional ticket for conference dinner: 25 euro or 1.500 MKD denars.**

**Company presentations: 200 EUR or 12.300 MKD denars**

\* Paper that is not covered by registration fee will not be published in the Conference Proceedings.

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## SOCIAL PROGRAM

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**Thursday, June 27, 2019, 12.00**

After Conference opening and plenary session, a Welcome cocktail will be offered to all Conference participants.

**Thursday, June 27, 2019, 20.00**

Conference Dinner - Restaurant Millennium

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## CONFERENCE TOPICS

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- [1] Radio Communications, Microwaves, Antennas
- [2] Telecommunication Systems and Technology
- [3] Signal Processing
- [4] Digital Image Processing
- [5] Computer Systems and Internet Technologies
- [6] Informatics and Computer Science
- [7] Electronics
- [8] Energy Systems and Efficiency
- [9] Control Systems
- [10] Measurement Science and Technology
- [11] Remote Ecological Monitoring
- [12] Engineering Education
- [13] Other

# CONFERENCE PROGRAM

Thursday, June 27

11:00

Lecture Hall

## OPENING SESSION

Chairman

**Prof. Mitko Kostov**

St. Kliment Ohridski University Bitola, Macedonia

**Prof. Nebojša Dončov**

University of Niš, Serbia

**Prof. Kalin Dimitrov**

Technical University of Sofia, Bulgaria

## PLENARY SESSION

11:30

Lecture Hall

Chairman

**Prof. Mitko Kostov**

St. Kliment Ohridski University Bitola, N. Macedonia

### **PL.1 - Prognostics and Health Management of Solid Oxide Fuel Cell Systems: Challenges, Accomplishments and Trends**

Boštjan Dolenc, Pavle Boškoski

Department of Systems and Control, Jožef Stefan Institute, Ljubljana,  
Slovenia

Thursday, June 27

15.30

Room A

Chairman:

**Nebojša Dončov**

University of Niš, Serbia

**Biljana Stošić**

University of Niš, Serbia

**Radio Communications, Microwaves, Antennas  
&  
Telecommunication Systems and Technology**

**1. Comparison of Wave Digital and Circuit Models of Microstrip Single-Stub L-Tuners**

Biljana Stošić and Nebojša Dončov

**2. A Neural Approach for Lumped Element Circuit Based Inverse Modeling of RF MEMS Switches**

Rohan Dhuri, Tomislav Ciric, Olivera Pronic Rancic, Vera Markovic and Zlatica Marinkovic

**3. Design of CPW-fed Asymmetrical Slot Array for K Band Applications**

Marija Milijic and Branka Jokanovic

**4. Channel Selection in 2.4GHz Band for IEEE 802.15.4 Networks**

Sladjana Djurasevic and Uros Pesovic

**5. Investigation of LTE/LTE-R Functionalities in Train Radio**

Adi Koruni and Ivaylo Topalov

**6. Enabling Adaptivity in IoT-based Smart Grid Architecture**

Nenad Petrović and Đorđe Kocić

**7. Traffic Grooming on Designing Elastic Optical Networks**

Suzana Miladić-Tešić, Goran Marković and Valentina Radojičić

**8. MAC-layer Protocol for UWB-Based Single-Tag Indoor Localization**

Milica Jovanovic, Igor Stojanovic, Sandra Đošić and Goran Djordjevic

**Thursday, June 27**

**15.30**

**Room B**

Chairman:

**Cvetko Mitrovski**

St. Kliment Ohridski University, Bitola, N. Macedonia

**Stevo Bozinovski**

South Carolina State University

**Computer Systems and Internet Technologies  
&  
Informatics and Computer Science**

**1. A Non-asymptotic Space Complexity of a Backtracking Algorithm for the N-queens Problem**

Adrijan Božinovski and Stevo Bozinovski

**2. Developing a B2C e-Commerce Graph Data Model from a Relational Schema**

Ilija Hristoski, Tome Dimovski and Violeta Manevska

**3. Financial Portfolio Optimization Using Clustering Algorithms**

Ivana Marković, Jovica Stanković, Jelena Stanković, Miloš Stojanović

**4. Efficient Bentness Testing for Cryptographic Function using Statistical Analysis of Binary Functions**

Miloš Radmanović

**5. Brain Rhythms, Pascal Triangle, and Brain-Computer Interface**

Stevo Bozinovski and Adrijan Božinovski

**6. Security and Standardization at E-learning platforms**

Dragan Zlatkovic, Nebojsa Denic, Milos Ilic and Milena Petrovic

**Thursday, June 27**

**15.30**

**Room D**

Chairman:

**Gordana Janevska**

St. Kliment Ohridski University, Bitola, N. Macedonia

**Jovan Stefanovski**

JP Strezevo, Bitola, N. Macedonia

**Electronics  
&  
Control Systems**

**1. Practical Experiments and Analysis for Detection of Smoke in the Blue and Infrared Light Spectrum**

Milen Kirov and Velimira Todorova

**2. Human-Machine Interaction of Electric Vehicle**

Zlatko Sovreski, Petr Bouchner, Stanislav Novotny, Misko Dzidrov and Elizabeta Hristovska

**3. Cyber Attack to Fault Tolerant System**

Jovan Stefanovski

**4. Mathematical Modeling and Simulation of Hybrid Electric Vehicle**

Gordana Janevska, Mitko Kostov and Goran Stojanovski

**Friday, June 28**

**12.00**

**Room A**

Chairman:

**Ljupco Trpezanovski**

St. Kliment Ohridski University, Bitola, N. Macedonia

**Metodija Atanasovski**

St. Kliment Ohridski University, Bitola, N. Macedonia

### **Energy Systems and Efficiency**

**1. Power Network Reliability Estimation Using Fuzzy Set Theory**

Natasha Dimishkovska and Atanas Iliev

**2. Optimal Power Injection Placement in Radial Distribution Systems using Mixed Integer Second Order Cone Programming**

Jovica Vuletic, Jordancho Angelov and Mirko Todorovski

**3. Optimal Locations of Energy Storage Devices in Low-Voltage Grids**

Jordancho Angelov, Jovica Vuletic and Mirko Todorovski

**4. Bayesian estimation of the solid oxide fuel cell model**

Đani Juričić, Gjorgji Nusev, Boštjan Dolenc and Pavle Boškosi

**5. Comparison of ACSR, AAAC and ACCC Conductors for Transmission Overhead Lines**

Metodija Atanasovski, Blagoja Arapinoski, Mitko Kostov and Ljupco Trpezanovski

**6. Power System Load Forecasting by using Sinuses Approximation and Wavelet Transform**

Mitko Kostov, Metodija Atanasovski, Gordana Janevska and Blagoja Arapinoski

**7. Impact of the Power System Stabilizer on Transient Stability of the Power System**

Blagoja Stevanoski and Natasa Mojsoska

**8. Electric Energy Study Applied to Six Industrial SMES Companies of The City of Bogota**

Omar Lopez Delgado

**9. Double Fed Induction Generator turbine in the Power System of Macedonia**

Mile Jonchevski and Mile Spirovski

**Friday, June 28**

**12.00**

**Room B**

Chairman:

**Milan Simić**

University of Niš, Serbia

**Mare Srbinovska**

Ss. Cyril and Methodius University of Skopje, N. Macedonia

**Measurement Science and Technology  
&  
Engineering Education & Other**

**1. Analysis of Measurement Uncertainty in Wireless Sensor Network based Power Quality Measurement**

Milan Simić, Goran Miljković, Dragan Živanović, Dragan Denić and Zivko Kokolanski

**2. Low-Cost Energy-Efficient Air Quality Monitoring System Using Sensor Network**

Mare Srbinovska, Aleksandra Krkoleva Mateska, Vesna Andova, Maja Celeska and Tomislav Kartalov

**3. Practical Implementation of Voltage Unbalance Measurement**

Lazar Sladojević, Lidija Korunović, Miodrag Stojanović and Vladeta Milenković

**4. Teaching Digital Filters using NI LabVIEW and USRP**

Aleksandar Atanasković, Biljana Stošić and Nataša Maleš-Ilić

**5. Bi-isotropic Cylinder Placed in Homogeneous Electric Field Generated Using Plan-parallel Electrodes**

Žaklina Mančić and Zlata Cvetković

**6. The Impact of Informative Technology in the Decision Process in Higher Education, with Special Studies in the University of Prishtina**

Osman Sertolli and Shpetim Lajqi

**7. Synthesis of Solutions in Transport Testing in MATLAB Software Environment**

Plamen Dqnikov and Stefan Kazakov

**8. Effectiveness of Using GeoGebra in Mathematics**

Sindize Jusufi and Stojan Kitanov

**Friday, June 28**

**16.00**

**Room A**

Chairman:

**Rumen Mironov**

Technical University of Sofia, Bulgaria

**Ivo Draganov**

Technical University of Sofia, Bulgaria

**Signal Processing & Digital Image Processing**

**1. Design of Narrow Band-stop Recursive Filter Based on Third Order Phase Corrector Application**

Ivan Krstić, Miloš Živković, Ivana Kostić and Goran Stančić

**2. Detection of Membrane Drying at Electrochemical Hydrogen Compressors**

Gjorgji Nusev, Gregor Dolanc, Đani Juričić and Pavle Boškoski

**3. Algorithm Selection for Automated Audio Classification based on Content**

Ivo Draganov and Krasimir Minchev

**4. Study of Parasitic Effects in Two-Integrator Loop Gm-C Filters If Realized with Single Stage OTAs**

Boncho Nikov, Ivan Uzunov and Marin Hristov

**5. Using Object Recognition Benefits in a System for Fire Detection in The Nature**

Maria Pavlova

**6. Parametric Modeling for Photorealistic Avatar Generation of 3D Human Body Geometry: A Review**

Nicole Christoff

**7. On Image Preprocessing Methods for Preparation Liver CT Image Series Database for Intelligent Segmentation and Classification Algorithms**

Melinda Kovács and Szilvia Nagy

**8. Estimating the Width of an Oblong Shape Using a Single Camera**

Vladimir Sibinovic

**9. Local-adaptive Enhancement of Details in Thermal Images**

Velin Jordanov and Ivo Draganov

**10. Simulation Model for Medical Images Watermarking using Wavelet Transform and DCT**

Rumen Mironov and Stoyan Kushlev

**11. Simulation Model Medical Images Watermarking using Complex Hadamard Transform**

Rumen Mironov and Stoyan Kushlev

**12. A Review of Methods for Human Motion Prediction in Video Sequences with Application to 3D Telepresence and Holoportation Systems**

Maria Yotova, Agata Manolova and Nikolay Neshov



# POSTER SESSIONS

Thursday, June 27

15.30

Po. A

Chairman:

**Zoran Milivojević**

High Technical School, Niš, Serbia

**Violeta Stojanović**

High Technical School, Niš, Serbia

## Poster 1 - Signal Processing & Digital Image Processing

### 1. Speech Intelligibility in Serbian Orthodox Churches and IEC 60268 – 16 Standard

Violeta Stojanović, Zoran Milivojević and Momir Prašćević

### 2. Signal Analysis with Application of k-Nearest Neighbors Method

Ivelina Balabanova and Georgi Georgiev

### 3. The Influence of Early Reflections and Babble Noise on the Intelligibility of Speech Signal from SMST base

Dijana Kostic, Zoran Milivojevic and Zoran Veličković

### 4. Application Of The Control Of Chaotic Processes In The Electronic Communications

Galina Cherneva

### 5. CB-SVD Watermarking Algorithm for Video Protection with Reduced Cyclic Insertion Scheme

Zoran Veličković, Zoran Milivojevicand Marko Veličković

### 6. Hybrid Method For Image Segmentation And Recoloring Of The Original Grayscale Photographs

Vladan Vuckovic and Sanja Spasic

### 7. The Performance of the Modified AGC Algorithm for the Quality Improvement of Low-Contrast Images

Zoran Milivojevic and Natasa Savic

### 8. Robustness of the SD Watermarking Algorithm for Y-corrected Images with Superimposed Gaussian Noise

Bojan Prlinčević and Zoran Milivojević

### 9. Modifying a Kinect v2 sensor to be able to connect to a Windows PC without the use of a Microsoft OEM adapter

Ivaylo Vladimirov, Desislava Nikolova and Zornitsa Terneva

**Thursday, June 27**

**15.30**

**Po. B**

Chairman:

**Ilia Iliev**

Technical University of Sofia, Bulgaria

**Kalin Dimitrov**

Technical University of Sofia, Bulgaria

**Poster 2 - Radio Communications, Microwaves, Antennas**

**1. Method and Algorithm for Automatically Targeting of Unmanned Aerial Vehicle with Vertical Landing on Mobile Landing Site**

Krume Andreev, Ilia Iliev and Georgi Stanchev

**2. Antenna Array Designing with an Application for Navigation Landing of Unmanned Flying Vehicle**

Ivaylo Nachev and Ilia Iliev

**3. Strip Horn Array for X-band Operation**

Nenad Popović, Predrag Manojlović, Ivana Radnovic and Bojan Virijević

**4. System for Automatically Targeting of Unmanned Aerial Vehicle with Vertical Landing on Mobile Landing Site**

Krume Andreev, Georgi Stanchev and Rumen Arnaudov

**5. Application of Vilenkin's Additional Theorem in the Calculations of Mutual Coupling Between Circular Apertures on Conducting Sphere**

Slavko Rupčić, Vanja Mandrić Radivojević and Nataša Nešić

**6. Use of Infrared Radiometry in Temperature Measurement of Plant Leaf**

Hristo Hristov, Kalin Dimitrov and Stanyo Kolev

**7. VHF Chebyshev Low Pass Filter with Lumped Elements**

Veljko Crnadak and Siniša Tasić

Thursday, June 27

15.30

Po. C

Chairman:

**Aleksandra Panajotovic**

University of Niš, Serbia

**Aleksandra Cvetković**

University of Niš, Serbia

**Poster 3 - Telecommunications Systems and Technology**

**1. Throughput Performance of MU-MIMO-OFDM with Optimal Pair-wise Algorithm under Imperfect CSI**

Aleksandra Panajotović, Nikola Sekulović and Daniela Milović

**2. Techniques for Eliminating Fading for FSO**

Borivoje Milosevic, Vladimir Saso and Srdjan Jovkovic

**3. Analysis of Intercept Events in Hybrid Satellite-Terrestrial Relay Network in the Presence of an Eavesdropper**

Aleksandra Cvetković, Jelena Anastasov, Dejan Milić, Daniela Milović and Goran Đorđević

**4. Extreme Learning Machines for Wireless Channel Prediction in Microcell and Picocell Environments**

Nikola Sekulovic, Milos Stojanovic, Aleksandra Panajotovic and Milos Bandjur

**5. Comparative Analysis of MTP and DSDV Routing Protocols in VANET**

Kamelia Nikolova, Tsvetan Marinov, Maria Nenova and Georgi Iliev

**6. Providing Tailor Made Managed Solution by Network Operator to the Business Customers**

Zlata Radak and Goran Marković

**Friday, June 28**

**12.00**

**Po. A**

Chairman:

**Evelina Pencheva**

Technical University of Sofia, Bulgaria

**Evelin Krnac**

University of Ljubljana, Slovenia

**Poster 4 - Computer Systems and Internet Technologies**

**&**

**Informatics and Computer Science**

**1. With Artificial Intelligence Towards Intelligent Logistics and Supply Chains: The State of the Art**

Evelin Krnac

**2. Interconnecting Wireless Sensor Networks Into IoT**

Mirko Kosanovic and Milos Kosanovic

**3. 5G System Support for Mission Critical Communications**

Evelina Pencheva, Aleksander Nametkov, Denitsa Velkova and Ventsislav Trifonov

**4. Warning Message Transmission as a RAN Service**

Ivaylo Atanasov, Vladislav Vladislavov, Ivaylo Asenov and Evelina Pencheva

**5. IoT System for Monitoring Conditions in the Human Environment**

Dejan Vujičić, Dušan Marković and Siniša Randić

**6. Modern Web-based Management System for Administration of Scientific Conferences**

Slavimir Stošović and Dušan Stefanović

**7. Development of Machine Learning Models for Foreign Trade Volume Prediction**

Ana Uzelac, Sladjana Jankovic, Snezana Mladenovic and Stefan Zdravković

**Friday, June 28**

**12.00**

**Po. B**

Chairman:

**Nikola Draganov**

Technical University of Gabrovo, Bulgaria

**Tihomir Brusev**

Technical University of Sofia, Bulgaria

**Poster 5 - Electronics**

**1. PWM and PFM Controlled Buck Converter designed for Wearable Electronic Devices**

Tihomir Brusev, Georgi Kunov and Elissaveta Gadjeva

**2. Experimental Module for Contactless Measurement of Electrical Current**

Nikola Draganov and Lyubomir Spasov

**3. Contactless Energy Transmission and Information Data Through a Common Inductive Link**

Lyudmil Petkov and Nikolay Madjarov

**4. Design and Realization of Interleaved PFC Converter with GaN FETs and SiC Diodes**

Zoran Zivanovic and Vladimir Smiljakovic

**5. Microchannel Plate (MCP)**

Ivan Zlatković, Aleksandra Stanković, Rade Nikolov, Branislav Brindić and Dragan Pantić

**Friday, June 28**

**12.00**

**Po. C**

Chairman:

**Rosen Miletiev**

Technical University of Sofia, Bulgaria

**Svetlana Mijakovska**

University St. Kliment Ohridski, Bitola, N. Macedonia

**Poster 6 - Measurement Science and Technology**

**1. Sensor Data Fusion for Determine Object Position**

Rosen Miletiev, Emil Iontchev, Petar Kapanakov and Lachezar Hristov

**2. Wavelet Algorithm for Denoising of MEMS Densor Data**

Lachezar Hristov, Emil Iontchev, Rosen Miletiev and Petar Kapanakov

**3. Test Methodology for Mains Interference Frequency Measurement**

Georgy Mihov and Dimitar Badarov

**4. AC Current Transducer as an Element of the Electrical Energy Consumption Control System**

Visa Tasic, Marijana Pavlov-Kagadejev, Rados Jeremijic, Vladimir Despotovic, Olivera Tasic and Ivana Stojkovic

**5. Performance Evaluation of IEEE 802.11a 54 Mbps WPA Laboratory Links**

Jose Pacheco de Carvalho, Claudia Pacheco and Hugo Veiga

**6. Impact of Noise in Printing Process**

Svetlana Mijakovska, Roberto Pasic, Ivo Kuzmanov and Filip Popovski

Friday, June 28

16.00

Po. A

Chairman:

**Blagoja Arapinoski**

University St. Kliment Ohridski, Bitola, N. Macedonia

**Vladimir Mijakovski**

University St. Kliment Ohridski, Bitola, N. Macedonia

### Poster 7 - Energy Systems and Efficiency

**1. Smart System for Domestic Power Consumption Measurement**

Vasil Shterev, Hristijan Kanchev and Eltimir Stoimenov

**2. Mining Ring Diagnosis using Artificial Neural Networks**

Dejan Stevanovic, Miona Andrejević Stošović and Marko Dimitrijević

**3. Determing of Magnetic Fields in The Area of Power Distributional Transformer ETN630 kV/A**

Emilija Sarafska, Blagoja Arapinovski and Vesna Ceselkoska

**4. Case Study: Energy Audit of the High School Dorm "Mirka Ginova"- Bitola**

Vladimir Mijakovski, Vangelce Mitrevski and Tale Geramitcioski

**5. Electric Field in the Environment of 110kV Power Line and its Impact on Biological Systems**

Blagoja Arapinoski, Mirka Popnikolova Radevska, Metodija Atanasovski and Mitko Kostov

**6. Cyber Security Protection and Defence Measures in the Electricity Transmission Networks in South-East Europe**

Aleksandra Krkoleva Mateska, Petar Krstevski and Stefan Borozan

**7. Cyclic voltammetry study on electrochromic copper(I) oxide thin films**

Ratka Neshkovska, Mimoza Ristova and Julijana Velevska

**Friday, June 28**

**16.00**

**Po. B**

Chairman:

**Denitsa Kireva-Mihova**

Technical University of Sofia, Bulgaria

**Ivo Kuzmanov**

University St. Kliment Ohridski, Bitola, N. Macedonia

**Poster 8 – Control Systems & Engineering Education & Other**

**1. C-STAR Simulator Teaching Experience**

Zoya Hubenova and Konstantin Metodiev

**2. Real Overview on Implemented p-FMEA Methodology in a Real Industrial Entity after a Year from the last Follow Up**

Ivo Kuzmanov, Roberto Pasic, Zore Angelevski and Ilios Vilos

**3. Approaches and Principles of Building Functional-Resistant Ergatic Systems**

Zoya Hubenova, Filip Iliev and Antonio Andonov

**4. Interoperable and Safety Aspects of the Platform-Train Interface**

Kalin Mirchev and Denitsa Kireva-Mihova

**5. Control of Production and Inventory in the Automotive Industry for Multi Customer and Multi Products**

Ivan Djordjevic, Gordan Stojic and Dobrila Petrović

**6. An Original Approach to the Construction of (3,2, $\rho$ )-N-Symmetrizable Hilbert Spaces**

Sonja Chalamani, Elena Kotevska and Marzanna Seweryn-Kuzmanovska

**7. On Groups of Cohomologies on a Locally Compact Topological Space**

Elena Kotevska and Sonja Chalamani

**8. Microprocessor Development System Applying a Multifunctional Demonstration Board**

Valentina Rankovska and Stanimir Rankovski

**9. Enhancing Teaching of Wireless Communications by Combining Simulation, Measurements and Demonstration**

Slavica Marinkovic, Amela Zekovic, Ivan Pavlovic and Milutin Nestic