

# СПИСАК КОНАЧНО ПРИХВАЋЕНИХ РАДОВА

## LIST OF FINALLY ACCEPTED PAPERS

### SPECIAL SECTION

#### ADVANCED WSNs (Wireless Sensor Networks) FOR AGRICULTURAL AND ENVIRONMENTAL APPLICATIONS (WSN)

- SS.1. Rolf Kraemer: **Wireless Sensor Networks for Use in Agriculture: "Challenges and Potential Solutions" – *Invited presentation***
- SS.2. Zoran Stamenković, S. Randjić, I. Santamaria, U. Pešović, G. Panić, S. Tanasković: **Advanced Wireless Sensor Nodes and Networks for Agricultural Applications - *Invited paper***
- SS.3. Diego Mendez, Sergio Diaz, Rolf Kraemer: **Wireless Technologies for Pollution Monitoring in large Cities and Rural Areas**
- SS.4. Mitar Simić, Goran M. Stojanović, Libu Manjakkal, Krzysztof Zaraska: **Multi-Sensor System for Remote Environmental (Air and Water) Quality Monitoring**
- SS.5. Krzysztof Piotrowski, Anna Sojka-Piotrowska, Zoran Stamenković, Rolf Kraemer: **IHPNode Platform as a Base for Precision Farming and Remote Diagnosis in Agriculture**

### СЕКЦИЈА 1: ПОЛИТИКА, РЕГУЛАТИВА И УСЛУГЕ У ТЕЛЕКОМУНИКАЦИЈАМА (ПРУ)

#### TELECOMMUNICATIONS POLICY, REGULATORY ASPECTS AND SERVICES (PRS)

- 1.1. Čedomir Vasić, Dejan Rančić: **Relocation of resources in road transportation based on the use of data from the GPS based systems - *Invited paper***
- 1.2. Andrey V. Chernov, Maria A. Butakova, Vladimir D. Vereskun, Oleg O. Kartashov: **Situation Awareness Service based on Mobile Platforms for Multilevel Intelligent Control System in Railway Transport**
- 1.3. Tatiana V. Atanasova, Stoyan A. Poryazov, Emiliya T. Saranova: **Problems with quality enabling of information functions composition in smart buildings**
- 1.4. Y. Guclu, N. Gozuacik, A. Gul: **Implementing Subscriber-Wide INAP Service in VoIP Switch**
- 1.5. Kemal Hajdarević, Pat Allen, Mario Spremić: **Proactive Security Metrics for Bring Your Own Device (BYOD) in ISO 27001 Supported Environments**
- 1.6. Aleksandar Valjarević, Hein Venter, Ranko Petrović: **ISO/IEC 27043:2015 – Role and application**
- 1.7. Zlata Radak, Vesna Radonjić Đogatović: **Customized charging option for business customers**

- 1.9. Nataša Banović-Ćurguz, Dijana Ilišević: **Evolucija metrika u savremenom telekomunikacionom okruženju**
- 1.10. Asanović S. Marko, Gospić M. Nataša: **Primjena preporuka za Green IT u lokalnim samoupravama**

## **SEKCIJA 2: TEJEKOMUNIKACIONE MREŽE (TM) TELECOMMUNICATIONS NETWORKS (TN)**

- 2.1. Nenad Krajnović: **Network topologies for achieving maximal all-terminal network availability – *Invited paper***
- 2.2. Igor Trpevski, Ljupco Kocarev: **Greedy Reduction of Navigation Time in Random Search processes**
- 2.3. Mladen Veletić, Ilangko Balasingham: **The Neural Communication Network: A Brief Review on Neuromodeling and Neuroengineering**
- 2.4. Evgeny S. Sagatov, Daria V. SamoiloVA, Andrei M. Sukhov, Nikita I. Vinogradov: **Composite distribution for one-way packet delay in the global network**
- 2.5. Hasan Redžović, Aleksandra Smiljanić, Bogdan Savić: **Performance Evaluation of Software Routers with VPN Features**
- 2.6. Stojan Kitanov, Toni Janevski: **State of the Art: Fog Computing for 5G Networks**
- 2.7. Stoyan Poryazov, Emiliya Saranova: **User-oriented, Overall Traffic and Time Efficiency Indicators in Telecommunications**
- 2.8. Nemanja M. Ninković, Mirjana D. Stojanović: **Novel Approaches to Intradomain and Interdomain Quality of Service Enhancement – *Invited paper***
- 2.9. Srđan Durković, Zoran Čiča: **Birkhoff-von Neumann Switch with Deflection Based Load Balancing**
- 2.10. Mihailo Vesović, Aleksandra Smiljanić, Milo Tomašević: **Speeding Up IP Lookup Procedure in Software Routers by Means of Parallelization**
- 2.11. Y. Urgun, A. Kavak: **SDN/NFV-based QoS Mechanism for Cellular Core Networks**
- 2.12. Seong-Jin Lim, Jaeho Chung, Jae-Seon Jang: **Uplink Scheduling Algorithm for Capacity Enhancement in LTE**
- 2.14. Dunja Grčić Pukšec: **Transforming telco service and resource provisioning**
- 2.15. Nenad Veselinović, Marijana Milovanović, Biljana Vasiljević, Saša Denić: **Napredne**
- 2.16. Vladimir Matić: **Using of post selection delay for evaluation of mixed communication network traffic properties – *Invited presentation***
- 2.17. A. Ali Al-Dahoud, B. Mohamed Fezari, C. Fatma Zohra Belhouchet, D. Thamer A. Al-Rawashdeh: **Remote Monitoring System for Solar Power Panels Using Intelligent Sensors Network**
- 2.18. S. Tomović, I. Radusinović: **Allocation algorithm for handling multiple applications in software-defined WSN**
- 2.19. Nicholas S. Samaras: **Using Basic MANET Routing Algorithms for Data Dissemination in Vehicular Ad Hoc Networks (VANETs)**

- 2.21. Saad A. Alharthi, Princy A. Johnson: **HT2HL: Hybrid Threshold Sensitive Two-Level Heterogeneous LEACH Routing Protocol for Wireless Sensor Networks**
- 2.22. Dragos Enache, Oana Chenaru, Dan Popescu: **Performance and Load Analysis for Remote Plant Connectivity Using GSM Communication**

### **СЕКЦИЈА 3: РАДИО-КОМУНИКАЦИЈЕ (РК) RADIO COMMUNICATIONS (RC)**

- 3.1. Mladen Koprivica: **Improving the Efficiency of Methods for Measurement of Electric Field Strength in the Vicinity of Public Mobile System Base Stations – *Invited paper***
- 3.2. Volkan Ozduran, Ehsan Soleimani-Nasab, B. Siddik Yarman: **Sum-Rate Opportunistic Relay Selection Method for a Dual-Hop Multiple Half/Full-Duplex Bi-directional Wireless Relaying Networks**
- 3.3. Cetin Kurnaz, Begum Korunur Engiz, Zafer Emre Albayrak: **Determination of TV White Space Spectrum Availability in Samsun Turkey**
- 3.4. Bojan Domazetović, Enis Kočan, Albena Mihovska: **Performance evaluation of IEEE 802.11ah systems**
- 3.5. A. M. Fanan, N. Riley, M. Mehdawi, M. Ammar: **Comparison of Propagation Models with Real Measurements Around Hull, UK**
- 3.6. Vlado Spajić, Djordje Begenišić, Dušan Savković: **Intra eNB UL CoMP: Concepts, Performance and Field Trial Results**
- 3.7. Vitomir Djaja-Josko, Jerzy Kolakowski: **Application of Kalman Filter for positioning precision improvement in UWB localization system**
- 3.8. Maja Rosić, Mirjana Simić, Petar Lukić: **TDOA approach for target localization based on improved genetic algorithm**
- 3.9. George Suciu, Marius Vochin, Alexandru Vulpe, Octavian Fratu: **Vehicular Mobile Data Collection Platform to Support the Development of Intelligent Transportation Systems**
- 3.10. M. Mehdawi, N. G. Riley, A. Fanan, M. Ammar: **Influence of Antenna Selection on Spectrum Occupancy Measurements in the Context of Cognitive Radio**
- 3.11. Uglješa Urošević, Zoran Veljović: **Distributed MIMO solutions for Peer-to-Peer Communications in Future Wireless Systems**
- 3.12. Renat R. Abdullin, Rostislav I. Sokolov: **Experimental Research into Leaky-Wave Antenna Based on Layered Rectangular Waveguide with Transverse Slots**
- 3.13. Nuri Saydam, Korkut Yeğın: **Ku Band Amplifier Design for Satcom Systems**
- 3.14. Dragan Gecan, Morten Olavsbraten, Karl Martin Gjertsen: **Investigation of the Gate Bias Voltage Influence on Linearity Performance of the ET and AET 10 W GaN HEMT PAs**
- 3.15. Milenko Milicevic, Branislava Milinkovic, Jelena Radic, Radivoje Djuric: **Digitally controlled attenuator**
- 3.16. First Yu. N. Parshin, Second P. A. Kaznacheev: **Testing of Channel Coefficients of MIMO Communication System in the Presence of Interferences Complex**

- 3.17. Yu. N. Parshin, V. I. Kudryashov: **Wiener Filtering of Channel Coefficients in MIMO Communication System with Mobile Objects**
- 3.18. Srdjan D. Misailović, Goran B. Marković: **Multihop hijerarhijski protokol rutiranja za bežične senzorske mreže većih dimezija u uslovima neidealne konektivnosti**
- 3.19. Tijana Pajkić, Milan Čabarkapa, Nataša Nešković, Đurađ Budimir: **Usporedna analiza karakteristika 4G i 5G signala na fizičkom sloju**
- 3.20. Goran B. Marković: **Centralizovana dvostepena klasifikacija signala po tipu modulacije primenom mreže senzora**
- 3.21. Selena Vukotić, Desimir Vučić: **Združena detekcija i klasifikacija OFDM/QAM, OFDM/OQAM i SC-FDMA signala na bazi cikličnih obeležja**
- 3.22. Danilo V. Obradović, Goran B. Marković, Ivan P. Pokrajac: **Analiza mogućnosti primene morfoloških operacija u procesu segmentacije spectra za potrebe radio-goniometrije**
- 3.23. Đorđe Lukić, Mladen Koprivica, Nataša Nešković, Aleksandar Nešković: **Eksperimentalna analiza performansi 2G/3G/4G javne mobilne mreže**
- 3.24. Slavko Petrović, Čedomir Marković, Milan Šunjevarić: **Upravljanje nulama dijagrama usmjerenosti zračenja antenskog niza u uslovima elektronskog ometanja**

#### **СЕКЦИЈА 4: СИСТЕМИ ПРЕНОСА СИГНАЛА (СПС) COMMUNICATIONS SYSTEMS (CS)**

- 4.1. Alexandru Amaricai, Oana Boncalo: **Cost effective FPGA implementation for Hard Decision LDPC decoders**
- 4.2. Jan Broulim, Sima Davarzani, Vjaceslav Georgiev, Jan Zich: **Genetic Optimization of a Short Block Length LDPC Code Accelerated by Distributed Algorithms**
- 4.3. Evgeny Likhobabin, Vladimir Vityazev: **Error Floor Reduction for LDPC Codes Using Self-Correction Technique**
- 4.4. Ludek Dudacek, Ivo Vertat: **Multidimensional Parity Check codes with short block lengths**
- 4.5. Dino-Solar Nikolić, Marija Trifunović, Predrag Milićević, Predrag Milosav, Miroslav Perić: **Methodology for Used Cryptographic Key Verification in Multi Gbit/s Encryption Systems**
- 4.6. Mikhail D. Prokhorov, Danil D. Kulminskiy, Vladimir I. Ponomarenko: **Secure Communication Schemes using Chaotic Synchronization of Time-Delay Systems**
- 4.7. Dragan Gecan, Morten Olavsbraten, Karl Martin Gjertsen: **Comprehensive Investigation of a Dynamic Gate Biasing Technique for Linearity Improvement Based on Measurement of a 10 W GaN HEMT**
- 4.8. Stefan Matlak, Razvan Bogdan: **Reducing Energy Consumption in Home Automation based on STM32F407 Microcontroller**
- 4.9. Bojan P. Prlinčević, Petar Ć. Spalević: **Performances of the image transmission over FSO channel in the last-mile connection – *Invited paper***

- 4.10. Mohammadreza Babaei, Ertugrul Basar, Ümit Aygözü: **A Cooperative Spectrum Sharing Protocol Using STBC-SM at Secondary User**
- 4.12. Sepideh Javadi, Ehsan Soleimani-Nasab: **Two-Way Interference-Limited AF Relaying with Wireless Power Transfer**
- 4.13. Rida Khan, Ibrahim Altunbas, Gunes Karabulut Kurt: **Enhanced XOR Network Coding Scheme with OFDM for Two-Way Relay Networks**
- 4.14. Azad Karataş, Berna Özbek, Ilker Sönmez, Sidika Bengür: **Load Based Cell Selection Algorithm for Tetra based Professional Mobile Radio**
- 4.15. Živorad Mihajlović, Aleksandar Milankov, Lazar Živković, Miloš Tolić: **Implementation of Wireless M-Bus Concentrator/Gateway for Remote Reading of Smart Gas Meters**
- 4.16. Milica I. Petković, Goran T. Djordjević, Predrag N. Ivaniš: **Partial Relay Selection with Variable Gain Relays and Outdated CSI in Mixed RF/FSO System**
- 4.17. Zoran Čiča: **Pipelined Implementation of Camellia Encryption Algorithm**
- 4.18. Hrvoje Vojvodić, Sadko Mandžuka, Miroslav Vujić: **The use of Cooperative Intelligent Transport Systems for Vehicle Emission Charging**
- 4.20. Cristian Perra: **A Framework for the Development of Sustainable Urban Mobility Applications**
- 4.21. Petr Burian: **Communication Stack for Generic Embedded Modular Control System**
- 4.22. Daniel Sarb, Razvan Bogdan: **Wireless Motor Control in Automotive Industry**
- 4.23. Dragan Peraković, Marko Periša, Ivan Cvitić, Siniša Husnjak: **Artificial Neuron Network Implementation in Detection and Classification of DDoS Traffic**
- 4.24. Miladin Sandić, Aleksandar Bilbija, Ivan Velikić: **Analiza integracije različitih klasa saobraćaja u mixed-critical mrežama**

## **СЕКЦИЈА 5: ОБРАДА СИГНАЈА (ОС) SIGNAL PROCESSING (SP)**

- 5.1. Jelena Krmar, Veljko Papić: **Adaptation of integrodifferential operator using statistical characteristics of the iris texture**
- 5.2. Miloš Brajović, Irena Orović, Srdjan Stanković: **The Optimization of the Hermite transform: Application Perspectives and 2D Generalization**
- 5.3. Rostislav I. Sokolov, Renat R. Abdullin: **Nonlinear JPG Image Filtering at Stage of Preprocessing**
- 5.4. Francesca Murgia, Daniele Giusto: **A Comparison of Raw Light Field Lossless Data Compression Algorithms**
- 5.5. Nataša S. Živić, Obaid Ur-Rehman: **Soft Authentication Techniques for Images**
- 5.6. Andrada Sumalan, Dan Popescu, Loretta Ichim: **Flooded area detection using UAV images**
- 5.8. Branka Stojanović, Oge Marques, Aleksandar Nešković, Snežana Puzović: **Fingerprint ROI Segmentation Based on Deep Learning**
- 5.9. Vladislava Bobić, Stevica Graovac: **Development, implementation and evaluation of new eye tracking methodology**

- 5.10. Đorđe S. Starčević, Vladimir S. Ostojić, Vladimir S. Petrović: **Automatic Evaluation of Collimation Field Rotation Angle in Digital Radiographic Images**
- 5.11. Đorđe S. Starčević, Vladimir S. Ostojić, Vladimir S. Petrović: **An Open-source Digital Diagnostic Radiography Image Annotation Software**
- 5.12. Vladimir S. Ostojić, Đorđe S. Starčević, Vladimir S. Petrović: **Low-value Laplacian Pyramid Coefficient Prediction for Faster Radiography Image Processing**
- 5.13. Milorad M. Vujković, Vladimir M. Rajović, Nenad S. Jovičić: **Ten axis MEMS as a position sensor**
- 5.14. Velibor Škobić, Uroš Marić, Stefan Tomić, Ivan Rešetar: **Real Time Video Freezing Detection Implementation on FPGA**
- 5.15. Ružica B. Bilibajkić: **Recognition of articulatory-acoustic deviations in pathological speech – *Invited paper***
- 5.16. Tijana Delić, Milan Sečujski: **Sinteza govora na srpskom jeziku zasnovana na veštačkim neuralnim mrežama**
- 5.17. Marjan Gusev, Aleksandar Ristovski, Ana Guseva: **Distribution of premature heartbeats**
- 5.18. Alexandros T. Tzallas, Ioannis Tsoulos, Markos G. Tsipouras, Nikolaos Giannakeas, Iosif Androulidakis, Elena Zaitseva: **Classification of EEG signals using feature creation produced by grammatical evolution**
- 5.19. Nives Kaprocki, Jelena Kovačević, Robert Pečkai Kovač, Miroslav Malko: **DSP implementation of the surround speaker virtualizer for sound bar systems**
- 5.20. Nikša Jakovljević, Dragiša Mišković, Željko Trpovski: **Evaluation of Noise Estimation Algorithms Based on Minimum Statistics and Signal to Noise Ratio**
- 5.21. Zvonko Radosavljević, Branko Kovačević: **Integrated Track Splitting-Component Merging History for Efficient Target Tracking - *Invited presentation***
- 5.22. Ahmed Deiaa, Bassant Abdelhamid, Amr El-Keyi, Salwa Elramly: **Mitigation of Both Doubly Selective Channels and Phase Noise Effects in OFDM Systems**
- 5.23. Ramiro Robles, Eduardo Tovar, Mauricio Lara, Aldo Orozco, Desmond C. McLemon, Mounir Ghogho: **Network Diversity Multiple Access in Rayleigh Fading Correlated Channels with Imperfect Channel and Collision Multiplicity Estimation**
- 5.25. Cristian Stanciu, Mihnea Udrea, Cristian Anghel: **Improved Regularization for a Low-Complexity RLS Algorithm**
- 5.26. Nawfal Al-Zubaidi R-Smith, Lubomir Brančik: **Convergence Acceleration Techniques for Proposed Numerical Inverse Laplace Transform Method**
- 5.27. Paul B. Nikishkin, Sergey V. Vityazev, Igor V. Subbotin, Aleksei V. Kharin, Vladimir V. Vityzaev: **Sub-band OFDM Implementation on Multicore DSP**
- 5.28. Dimitrije M. Bujaković, Željko M. Đurović, Milenko S. Andrić, Boban P. Bondžulić, Slobodan M. Simić: **Expert System Based on Hidden Markov Models for Recognition of Radar Targets – *Invited paper***
- 5.29. Nikola Stojković, Dejan Nikolić, Bojan Džolić, Nikola Tošić, Vladimir Orlić, Nikola Lekić, Branislav M. Todorović: **An Implementation of Tracking Algorithm for Over-The-Horizon Surface Wave Radar**

- 5.30. Veljko N. Nikolić, Vera V. Marković: **Determining the DOA of Received Signal Using RBFNN Trained with Simulated Data**
- 5.31. Slaviša Tomić, Marko Beko, Rui Dinis, Milan Tuba, Nebojša Bačanin: **An Efficient WLS Estimator for Target Localization in Wireless Sensor Networks**
- 5.32. Miloš Brajović, Andjela Draganić, Irena Orlović, Srdjan Stanković: **FHSS signal sparsification in the Hermite transform domain**
- 5.33. Slobodan Djukanović, Tomo Popović, Andrija Mitrović: **Precise sinusoid frequency estimation based on parabolic interpolation**
- 5.34. Miloš Daković, Isidora Stanković, Joachim Ender, Ljubiša Stanković: **Sample Selection Strategy in DFT based Compressive Sensing**

## **SEKCIJA 6: ПРИМЕЊЕНА ЕЛЕКТРОМАГНЕТИКА (ПЕМ) APPLIED ELECTROMAGNETICS (AEM)**

- 6.1. Yavuz Aşçi, Mustafa Pehlivan, Korkut Yeğın: **Wideband, High Gain Aperture Coupled Ku-Band Antenna for SatCom**
- 6.4. Miloš Subotić, Laszlo Palfi, Nebojša U. Pjevalica: **Efficient Antenna Modeling Method for Microwave Tomography**
- 6.5. Olcay Yiğit, Yavuz Aşçi, Ismail Şişman, , Korkut Yeğın: **Beam Switched Antenna Design for Jamming Mitigation of GPS Receivers**
- 6.6. Luka Lazović, Ana Jovanović, Budimir Lutovac, Vesna Rubežić: **Primjena teorije grafova za dizajniranje rekonfigurabilnih fraktalnih antenna**
- 6.7. Vojislav Milošević, Branka Jokanović, Olga Boric-Lubecke, Victor Lubecke: **Key Millimeter Wave Technologies for 5G – *Invited presentation***
- 6.9. Gerald Artner, Robert Langwieser, Christoph F. Mecklenbräuer: **A MID Dipole Antenna in LDS Technology**
- 6.10. Mustafa Pehlivan, Korkut Yeğın, Yavuz Aşçi: **Design of 1-18 GHz Parabolic Reflector Antenna with LPDA Feed**
- 6.11. Samineh Sarbazi Golazari, Nasrin Amiri, Farrokh Hojjat Kashani: **Design, Simulation and Measurement of Loop Plasma Antenna in UHF Band**
- 6.13. Grigorios P. Zouros: **Alternative Orthogonal Vector Basis Functions for Solving Volume Integral Equations in Electromagnetic Theory – *Invited paper***
- 6.14. Jovana Perović, Dragan Olćan: **The Excess Attenuation of Electric Field in the Presence of Deciduous Trees**
- 6.15. Hulya Ozturk, Korkut Yegin: **Electromagnetic Scattering from PEC Wedge in Lossy Medium due to Point Current Source**
- 6.16. Velibor Pjevalica, Nebojša Pjevalica, Nenad Petrović, Nikola Teslić: **A Novel Simulation Approach for Measuring of DC Voltage Offset Influence on Magnetizing Current Even Harmonics in the Power Transformer by Using Dither**
- 6.17. Eduard Plavec, Mladen Vidović: **Genetic Algorithm Based Plunger Shape Optimization of DC Solenoid Electromagnetic Actuator**

- 6.18. Slobodan V. Savić, Milan M. Ilić: **Curved Continuously Inhomogeneous and Anisotropic Higher Order Finite Elements for Accurate Large-Domain Electromagnetic Modeling – *Invited paper***
- 6.19. Milivoje F. Miletić: **Comparison of four MoM Formulations when Solving Electrostatic Problems where Rotational Symmetry is Exploited**
- 6.20. Georgios D. Kolezas, Grigorios P. Zouros: **Electromagnetic Scattering by a Conducting sphere with Anisotropic Coating**
- 6.21. Danka Antić, Gorana Mijatović, Nikola Djurić, Giuseppe Mazzarella: **The COMSOL Support for Analysis of Inductors with Variable Geometry**
- 6.22. Vasily Yu. Kozhevnikov, Andrey V. Kozyrev, Natalia S. Semeniuk: **Kinetic Modelling of the One-dimensional Planar Virtual Cathode Oscillator**
- 6.23. Slobodan Bjelić, Nenad Marković, Igor Bjelić, Zorica Bogićević, Uroš Jakšić, Bojan Jovanović: **Detektovanje inverzne komponente struje pomoću projektovanog filtra struje 100 Hz**
- 6.24. Diana V. Semenikhina, Nikolay I. Chikov, Andrey I. Semenikhin, Nikolay N. Gorbatenko: **Experimental Studies of Nonlinear Metasurface with Metamaterial Substrate**
- 6.25. Veljko Crnadak, Siniša Tasić: **Improved VHF Quadrature Hybrid Coupler**
- 6.26. Yury V. Yukhanov, Tatiana Yu. Privalova: **Synthesis of Impedance Reflection Type Polarizer**
- 6.27. N. Djurić, D. Kljajić: **An Approach for the Design of Chemical Reactors under Microwave Irradiation**
- 6.28. Denis A. Letavin, Yuriy E. Mitelman, Victor A. Chechetkin: **The Substrate Factor in the Miniaturization Efficiency of the Microstrip Branch-Line Couplers**
- 6.29. N. Djurić, J. Bjelica: **Resonant Cavity as Microwave Exposure System for Biological Materials**
- 6.30. Marjan Blagojević, Dragan Mančić: **The system for magnetic field mapping based on the integrated 3D Hall sensor – *Invited paper***
- 6.31. O. Kundacina, V. Vincan, D. Antic, D. Kljajic, K. Kasas-Lazetic: **The ABM 8057 Utilization for SEMONT's EMF Monitoring in a Closed Room**
- 6.32. J. Bjelica, G.Mijatović, D. Kljajić, A. Fantì: **The Inductors with Adjustable Surface Area for Energy Harvesting Utilization**
- 6.33. Nataša J. Nešić, Nebojša S. Dončov, Johannes A. Russer, Bratislav D. Milovanovic: **Electromagnetic Field Coupling with Two Monopole Antennas inside a Protective Enclosure with Apertures**
- 6.34. Andrejs Prucevs, Janis Semenjako, Tatjana Solovjova: **New Shape Induction Loop for Small and Medium-Size Rooms**
- 6.35. G. Nedic, N. Djuric, D. Kljajic, M. Milutinov, S. Josic: **The Exposure Assessment to Communication Equipment of High-power Substation**

**СЕКЦИЈА 7: ПРИМЕЊЕНА ЕЛЕКТРОНИКА (ПЕЈ)  
APPLIED ELECTRONICS (AEL)**



- 7.1. Vladimir Ya. Stenin, Artem V. Antonyuk: **Design of the 65-nm CMOS Comparison Element for a Content-Addressable Memory and Simulation of Single-Event Transients**
- 7.2. Yuri V. Katunin, Vladimir Ya. Stenin, Artem V. Antonyuk: **Design of Logical Elements with Single-Event Compensation for the 28-nm CMOS Decoders**
- 7.3. Damjan Rakanović, Rastislav Struharik: **IP Core for AES256 and TDES algorithms with AXI Interface**
- 7.4. Vladimir D. Čatić, Natalija M. Lukić, Iva M. Salom, Vukašin P. Ristić, Milenko M. Kabović, Nikola M. Nenadić: **An Automated Environment for Hardware Testing Using PXI Instrumentation and LabVIEW Software**
- 7.5. Jan Moldaschl, Mohamed Darwish: **An Ultra Flat Profile Natural Interleaved Power Factor Corrector with Advanced Power Management**
- 7.6. Darshan Shetty, Vijaya Sankara Rao Pasupureddi, Johannes Sturm: **A 2.4 GHz, 1 dB Noise Figure Common-Gate LNA for WLAN Frontend**
- 7.7. Saeed Olyaei, Masood Sherafat: **Investigation of target speed effect on nonlinearity error caused by non-ideal PBS in DTLMI**
- 7.9. Vladimir Rajs, Živorad Mihajlović, Vladimir Milosavljević, Josif Tomić, Miloš Živanov: **Methods of environmental monitoring parameters based on smart measurement systems, - Invited Presentation**
- 7.10. Jan Zich, Jan Broulim: **Wireless Unit for Environmental Monitoring**
- 7.11. Trifun Savić, Milutin Radonjić: **Proposal of Solution for Automated Irrigation System**
- 7.12. Ondřej Lufinka: **Multiple-Point Ultrasonic Distance Measurement and Communication with Simulations**
- 7.13. Marko Milovanović, Ivan T. Popović, Aleksandar Ž. Rakić: **Run-Time Reconfigurable Middleware in Device Net Architecture**
- 7.14. Zlatko Bundalo, Adnan Ramakić, Dušanka Bundalo: **Application and User Data Protection Using Smartphone**
- 7.15. Sadko Mandžuka, Martin Gregurić, Zdenko Kljaić: **Kooperativno okruženje za infrastrukturu e-mobilnosti**

## **СЕКЦИЈА 8: МУЛТИМЕДИЈА (ММ) MULTIMEDIA (MM)**

- 8.1. Yeter Şekertekin, Özkan Atan: **An Image Encryption Algorithm Using Ikeda and Henon Chaotic Maps**
- 8.2. Cristian Perra: **On the Quality Evaluation of Lossy Compressed Light Fields**
- 8.3. Francesca Murgia, Daniele Giusto: **Low Cost Plenoptic Camera for 3D Modelling**
- 8.4. Ira Tuba, Eva Tuba, Marko Beko: **Digital Image Forgery Detection Based on Shadow Texture Features**
- 8.5. Pouya Ahmadvand, Payam Ahmadvand, Reza Ebrahimpour: **How popular CNNs Perform in Real Applications of Face Recognition**

- 8.6. Aleksandar Stojak, Eva Tuba, Milan Tuba: **Framework for Abnormality Detection in Magnetic Resonance Brain Images**
- 8.7. Marina Nikolić, Eva Tuba, Milan Tuba: **Edge Detection in Medical Ultrasound Images Using Adjusted Canny Edge Detection Algorithm**
- 8.8. Draško Mašović: **Towards the Improved Prediction of Airborne Sound Insulation in Buildings - Invited paper**
- 8.9. Dragan M. Ristić: **Karakterizacija teksture impulsnog odziva prostorija primenom multifraktalne analize - Invited paper**
- 8.10. Iva Salom: **Analysis of Acoustical Characteristics of a Church Bell Sound - Invited paper**
- 8.11. Nikola Petrović, Miloš Bjelić, Jelena Čertić, Miodrag Stanojević, Dragana Šumarac Pavlović: **Analyses of decimation filter stopband attenuation influence on subjective quality of audio signals**
- 8.12. Miodrag Dinić, Aleksandar Rikalo, Aleksandar Marković, Petar Jovanović: **Optimizacija održavanja asocijativnog bafera jedinice za upravljanje memorijom u Android emulatoru za arhitekturu MIPS**
- 8.13. Amela Zeković, Irini Reljin: **Multifractal and Inverse Multifractal Characterization of 3D Video Formats - Invited paper**
- 8.14. Dejan R. Marković, Ana M. Gavrovska, Irini S. Reljin: **4K Video Traffic Analysis using Seasonal Autoregressive Model for Traffic Prediction**
- 8.15. Ilija Popadić, Branislav Todorović: **Image fusion based on the multi-exposed images**
- 8.16. Nemanja Fimić, Ilija Bašičević: **Software architecture for supporting FCC in DVB-S/C/T set top boxes**
- 8.17. Tijana Srejić, Miloš Ilić, Milena Milošević: **Realizacija mehanizma za isporuku događaja u aplikativnom okruženju vozila**
- 8.18. Nenad Šoškić, Laslo Benarik, Ilija Bašičević: **Jedno rešenje propagiranja EPG podataka na digitalnom televizijskom prijemniku**
- 8.19. Nemanja Djekić, Miloš Janković, Nebojša Pjevalica: **USB-om kontrolisan relejni prekidač**

## **СЕКЦИЈА 9: СОФТВЕРСКИ АЛАТИ И АПЛИКАЦИЈЕ (САА) SOFTWARE TOOLS AND APPLICATIONS (STA)**

- 9.1. Mirela Simonović, Vojin Živojnović, Lazar Saranovac: **An Approach to Modeling Clock Tree of a Complex System-on-Chip**
- 9.2. Petr S. Budyakov, Nikolay I. Chernov, Vladislav Ya. Yugai, Nikolay N. Prokopenko: **Logic Functions Representation and Synthesis of k-valued Digital Circuits in Linear Algebra**
- 9.3. Konstantin O. Petrosyants, Igor A. Kharitonov, Ekaterina I. Batarueva: **Simulation of CMOS IC's Waveforms Distortions in PCB Traces with Account for Radiation Effects**
- 9.4. Miodrag Živković, Nemanja Jovanović: **NFC TraceCase**
- 9.5. Djordje Pešić, Borislav Đorđević, Valentina Timčenko: **Competition of Virtualized Ext4, Xfs and Btrfs Filesystems Under Type-2 Hypervisor**

- 9.6. Novica Janković, Marko Barjaktarović, Milica Janković, Đorđe Čantrak: **First Steps in New Affordable PIV Measurements**
- 9.7. Ivo Marković, Marko Nešović, Mile Davidović: **Jedno rešenje testiranja set-top boks hardvera na fabričkoj liniji**
- 9.8. Francesca Murgia, Daniele Giusto: **A Database for Evaluating the Quality of Experience in Light Field Applications**
- 9.9. Đulaga Hadžić, Nermin Sarajlić, Jasmin Malkić: **Different Similarity Measures to Identify Duplicate Records in Relational Databases**
- 9.10. Petar Spalević, Emir Pećanin, Siniša Ilić, Mladen Veinović, Stefan Panić: **Automatization of the ETL Process on the Isolated Small Scale Database System**
- 9.11. Kosa R. Nenadić, Milan M. Gavrić: **Enhancing CIM with Linked Data Capability**
- 9.12. Guma Abdulkhader Lakshen, Sanja Vraneš, Valentina Janev: **Big Data and Quality: A Literature Review**
- 9.13. Aleksandar J. Petkovski, Biljana L. Risteska Stojkoska, Kire V. Trivodaliev, Slobodan A. Kalajdziski: **Analysis of Churn Prediction: A Case Study on Telecommunication Services in Macedonia**
- 9.14. Ana Guseva, Marjan Gusev, Ivan Chorbev: **iKnow Usability: A Case Study**
- 9.15. Pero Skorput, Miroslav Vujić, Darko Bokulić: **Upravljanje znanjem u domeni inteligentnih transportnih sustava**
- 9.16. Roland Szabo: **Lynxmotion AL5 Type Robotic Arm Control with Color Detection on FPGA Running Linux OS**
- 9.18. Aleksandra Simić, Ognjen Kocić, Milan Z. Bjelica, Tomislav Maruna: **Driver Monitoring Algorithm for Advanced Driver Assistance Systems**
- 9.19. Lucian Todorovici, Razvan Bogdan: **Studying Thermal Behavior of Buildings and Vehicles by Means of a Mobile Thermographic System**
- 9.20. Ognjen Kocić, Aleksandra Simić, Milan Z. Bjelica, Tomislav Maruna: **Optimization of Driver Monitoring ADAS Algorithm for Heterogeneous Platform**
- 9.21. Tuponja Boris, Šuković Goran: **Evolving Neural Network to Play Game**
- 9.22. Ioannis G. Tsoulos, Alexandros T. Tzallas, Dimitrios G. Tsalikakis, Nikolaos Giannakeas, Markos Tsipouras, Iosif Androuridakis, Elena Zaitseva: **NeuralGenesis: a Software for**
- 9.23. Marija Punt: **Human-computer Interaction in an Integrated Environment combining digital TV, mobile devices and Internet - *Invited paper***
- 9.24. Marko Krnjetin, Nenad Četić: **Scripting framework for graphical configuration tool for embedded devices**
- 9.25. Slavko Žitnik, Marko Janković, Klemen Petrovčič, Marko Bajec: **Architecture of Standard-based, Interoperable and Extensible IoT Platform**
- 9.26. Stevan Šandi, Božo Krstajić, Tomo Popović: **pyPMU – Open Source Python Package for Synchrophasor Data Transfer**
- 9.27. Marko Rajinac, Momčilo Krunić, Ivan Považan, Jelena Kovačević: **An Eclipse plugin for preserving and reloading debug session, in domain of DSP application development**
- 9.28. Petar Žica, Nikola Vranić: **Jedno rešenje programske sprege ulaznih uređaja i Android platforme sa primerom integracije Nunchuk uređaja**
- 9.29. Stefan Bosnić, Sebastijan Novak: **The development of hybrid mobile applications with Apache Cordova**

- 9.30. Goran Vukov, Marko Kovačević, Branimir Kovačević, Tomislav Maruna: **Jedna realizacija čuvanja podataka o događajima u vozilu u Androidu operativnom sistemu**
- 9.46. Nebojša Đorđević, Dejan Rančić, Petar Spalević: **Development of a Methodology for Evaluating the Quality in Use of WebGIS applications - Invited presentation**
- 9.31. Dražen Drašković, Vidor Gencel, Slavko Žitnik, Marko Bajec, Boško Nikolić: **A software agent for social networks using natural language processing techniques**
- 9.32. Sanja Delčev, Maja Vukasović, Dražen Drašković, Dimitrije Radojević, Marko Janković, Marko Bajec, Boško Nikolić: **Veb sistem za polaganje testova znanja iz Inteligentnih sistema**
- 9.34. Vuk Batanović, Boško Nikolić: **Sentiment Classification of Documents in Serbian: The Effects of Morphological Normalization**
- 9.35. Stefan Pijetlović, Petar Jovanović, Nikola Teslić, Slobodan Prljević: **An Approach to Software Development Tools Unification**
- 9.36. Goran P. Šimić, Stefan T. Pantić, Aleksandar D. Jevremović: **Framework for Improving Web Based e-Learning Interactivity**
- 9.37. Dijana R. Vuković, Igor M. Dujlović: **Facebook Messenger Bots and Their Application for Business**
- 9.38. Zoran Nešić, Leon Ljubić, Miroslav Radojičić, Jasmina Vesić Vasović: **Some Considerations on Improvement of Parking Service Information System**
- 9.39. Miroslav Lutovac: **Graphical User Interface for Electrical Engineering Systems using Wolfram Language**
- 9.40. Goran Velkoski, Marjan Gusev, Sasko Ristov: **Analysis of Interactive Image Technologies**
- 9.41. Cristian Perra: **Light Field Image Compression Based on Preprocessing and High Efficiency Coding**
- 9.42. Marko J. Mišić, Dušan V. Nikolov, Jelica Ž. Protić, Milo V. Tomašević: **Paralelizacija GST algoritama za detekciju sličnosti u programskom kodu**
- 9.43. A. Ristovski, M. Gusev, S. Ristov: **Nested Parallelism Concepts of Ray Tracing Algorithms and Multithreading API Performance Analysis**
- 9.44. Slavica V. Boštjančič Rakas, Mirjana D. Stojanović: **A Policy-Based Approach to E2E Service Negotiation via Third Party Agent**
- 9.45. Igor Bjelić, Zorica Bogičević, Slobodan Bjelić, Nenad Marković, Bojan Jovanović: **Simulation of daylight in order to protect the sustainability of old architectural structures cultural heritage in the environment**

## **СЕКЦИЈА 10: ОПТИЧКЕ ТЕЛЕКОМУНИКАЦИЈЕ (ОТ) OPTICAL COMMUNICATONS**

- 10.1. Marko M. Krstić, Jasna V. Crnjanski, Angelina R. Totović, Dejan M. Gvozdić: **Injection-Locked Fabry-Pérot Laser Diodes for All-Optical Flip-Flops - Invited paper**
- 10.2. Nebojša Stojanović, Fotini Karinou, Cristian Prodaniuc, Zhang Qiang: **Timing Recovery in High-Speed PAM-4 Transmission Systems**
- 10.3. Dimitris Uzunidis, Chris Matrakidis, Alexandros Stavdas: **Simplified FWM Model for Flexible-Grid Optical Systems**

- 10.4. Dimitris Uzunidis, Chris Matrakidis, Alexandros Stavdas: **Application of a Simplified FWM Expression in Mixed-Fiber Links**
- 10.5. Behnam Asharafzadeh, Ehsan Soleimani-Nasab, Mehdi Kamandar: **Outage Analysis of Mixed RF/FSO Cooperative Systems with Multiple Antennas and Apertures**
- 10.6. Behnam Asharafzadeh, Ehsan Soleimani-Nasab: **Performance Analysis of mixed DGG and Generalized Nakagami-m Dual-Hop FSO/RF Transmission Systems**
- 10.7. Jakup Ratkoceri, Ahmed Samir, Boštjan Batagelj: **Seven-Core Optical Fiber in a Passive Optical Access Network**
- 10.8. Nemanja N. Miljković, Aleksandar D. Stojanović, Petar S. Matavulj: **Physical model for B92-QKD authentication based on analogy with optical chaotic systems**