Union of Electronics, Electrical Engineering and Telecommunications (CEEC)

Federation of the Scientific-Technical Unions in Bulgaria (FNTS)

Ministry of Transport and Communications

Communications Regulation Commission

Union of Scientists in Bulgaria

Technical University of Sofia - Faculty of Telecommunications

New Bulgarian University – Department of Telecommunications

South-West University "Neofit Rilski" - Technical Faculty

IEEE Bulgarian Section

34th NATIONAL CONFERENCE
WITH INTERNATIONAL PARTICIPATION

TELECOM 2026

THE WAYS TO CONNECT THE FUTURE



P R O G R A M M E

26 - 27 November 2026
National Science and Technical Centre,
108 Rakovsky St. – Sofia &Virtual room

TELECOM 2026

is technically co-sponsored by IEEE:

2026 34th National Conference with International Participation - #71647

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A1 Bulgaria EAD

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Telecom 2026 Sessions Timetable

Date	*Time*	*Sessions*
Thursday 26.11.2026	**10.00 – 12.00**	**Conference Opening, Greetings** **Plenary Session 1, Hall 3 &** Virtual Room 1 Meeting ID: 629 615 7598, Passcode: WZJF1P Chairmen: Assoc. Prof. Plamen Vachkov, PhD Prof. Seferin Mirtchev, DSc **Presentations**: **1. CRC, 2. ATI, 3. Huawei Technologies, 4. Ivan Ganchev - Invited paper**
	12.30 - 14.00	**Section Session 1, Hall 3 &** Virtual Room 1 Meeting ID: 629 615 7598, Passcode: WZJF1P **INTERNET OF THINGS (IoT). SMART HOME AND CITIES. E-HEALTH. BETTER LIVING WITH ICT.** Chairman: Assoc. Prof. Kamelia Nikolova, PhD **Presentations**: Papers 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9
	14.10 – 15.40	**Section Session 2, Hall 3 &** Virtual Room 1 Meeting ID: 629 615 7598, Passcode: WZJF1P **TELECOMMUNICATIONS THEORY. SIGNALS AND SYSTEMS. IMAGE PROCESSING AND CODING.** Chairman: Assoc. Prof. Boncho Bonev, PhD **Presentations**: Papers 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8
	15.50 – 17.20	**Section Session 3, Hall 3 &** Virtual Room 1 Meeting ID: 629 615 7598, Passcode: WZJF1P **BIG DATA NETWORKING. ARTIFICIAL INTELLIGENCE IN ICT.** Chairman: Prof. Krasen Angelov, PhD **Presentations**: Papers 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9
	17.30 – 18.10	**Poster Session 4, Hall 3 &** Virtual Room 1 Meeting ID: 629 615 7598, Passcode: WZJF1P **INTERNET OF THINGS (IoT). ARTIFICIAL INTELLIGENCE IN ICT.** Chairmen: Assoc. Prof. Dimitar Arnaudov, PhD, Stefan Patchedjiev, PhD **Posters**: Papers 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 4.10
	18.10 – 18.45	**Discussion, Hall 3 &** Virtual Room 1 Meeting ID: 629 615 7598, Passcode: WZJF1P **METHODS AND MEANS FOR ENHANCING ICT PLATFORMS** Chairmen: Prof. Ivan Kurtev, PhD, Prof. Ivan Ganche, PhD
	19.00 – 20.30	**Informal Meeting Forum - Cocktail – Hall 3**

Date	*Time*	*Sessions*
Friday 27.11.2026	**08.00 – 09.30**	**Section Session 5, Hall 3 &** Virtual Room 2 Meeting ID: 629 615 7598, Passcode: WZJF1P **TELECOMMUNICATIONS NETWORKS AND SERVICES. NEXT GENERATION NETWORKS (NGN). SOFTWARE DEFINED NETWORKS.** Chairman: Assist. Prof. Rositsa Goleva, PhD **Presentations**: Papers 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9
	09.40 – 11.10	**Section Session 6, Hall 3 &** Virtual Room 2 Meeting ID: 629 615 7598, Passcode: WZJF1P **TELETRAFFIC ENGINEERING. QUALITY OF SERVICE (QoS) AND RESOURCE MANAGEMENT.** Chairman: Assoc. Prof. Kiril Kassev, PhD **Presentations**: Papers 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9
	11.20 – 12.50	**Section Session 7, Hall 3 &** Virtual Room 2 Meeting ID: 629 615 7598, Passcode: WZJF1P **SOFTWARE-DEFINED RADIO. MOBILE COMMUNICATIONS. ECONOMICS AND MARKETING OF ELECTRONIC COMMUNICATIONS.** Chairman: Prof. Georgi Hristov, PhD **Presentations**: Papers 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8
	13.30 – 15.00	**Section Session 8, Hall 3 &** Virtual Room 2 Meeting ID: 629 615 7598, Passcode: WZJF1P **QUANTUM COMMUNICATIONS. NETWORK SECURITY.** Chairman: Assoc. Prof. Georgi Petrov, PhD **Presentations**: Papers 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8
	15.10 – 16.40	**Section Session 9, Hall 3 &** Virtual Room 2 Meeting ID: 629 615 7598, Passcode: WZJF1P **RESEARCH/EDUCATION METHODOLOGIES IN ICT.** Chairman: Assoc. Prof. Ivan Nedyalkov, PhD **Presentations**: Papers 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8
	16.50 – 18.00	**Posters Session 10, Hall 3 &** Virtual Room 2 Meeting ID: 629 615 7598, Passcode: WZJF1P **RESEARCH METHODOLOGIES IN ICT. BIG DATA NETWORKING.** Chairman: Assoc. Prof. Dimitar Arnaudov, PhD, Stefan Patchedjiev, PhD **Posters**: Papers 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 10.10

CONFERENCE PROGRAMME

Thursday, 26.11.2026 г.

NATIONAL SCIENCE AND TECHNICAL CENTRE
Hall 3 & Virtual Room 1 Meeting ID: 836 4436 7937, Passcode: WZJF1P

Conference Opening, Greetings

10.00 – 12.00
26.11.2026 г.

Plenary Session 1, Hall 3 & Virtual Room 1
Conference Opening, Greetings
Chairmen: Assoc. Prof. Plamen Vachkov, PhD
Prof. Seferin Mirtchev, DSc

1. **"Electromagnetic Compatibility Laboratory at the Communications Regulation Commission" –** Presentation
   Iliana Stefanova - Head of the Electromagnetic Compatibility and Measurements Department
   Communications Regulation Commission

2. **"Digital Connectivity in Bulgaria: Achievements and Outlook" -** Presentation
   Andreana Atanasova - Chairperson of the Managing Board
   Alliance of the Technology Industry (ATI)

3. **"Huawei Technologies"**
   Ivan Ivanov - Manager,
   Huawei Technologies Bulgaria Ltd

4. **"New Approaches to Predicting QoSD and QoSE in Overall Telecommunication Systems" -** Invited Paper
   Ivan Ganchev – Professor, *Faculty of Mathematics and Informatics, "Paisii Hilendarski" University of Plovdiv, Bulgaria, IMI–BAS, Sofia, Bulgaria, TRC/ECE, University of Limerick, Limerick, Ireland*
   Stoyan Poryazov – *Associate Professor of Mathematics and Informatics – Bulgarian Academy of Sciences, Sofia*

Section Session 1, Hall 3 & Virtual Room 1

12.30 – 14.00
26.11.2026 г.

INTERNET OF THINGS (IoT). SMART HOME AND CITIES. E-HEALTH. BETTER LIVING WITH ICT.

Chairman: Assoc. Prof. Kamelia Nikolova, PhD

1.1. **Evidence-Aware Message Scheduling for Smart-Grid Incident Analysis under Bandwidth Constraints**
Nikolay Hinov, Plamen Stanchev, Maria Ivanova

1.2. **Data-Driven Cyberattack Classification in Smart EV Charging Infrastructure: A Multi-Layer Simulation Study**
Plamen Stanchev, Nikolay Hinov, Maria Ivanova

1.3. **An Application of Assembly Programming for ARM and AVR Embedded Platforms in IoT Systems Defense**
Ivan Stankov, Veselin Stanchev

1.4. **Pixels, Regions, Features or Decisions? What an LPWAN Camera Should Transmit for Machine Vision in Smart Cities**
Petko Stoev, Vladimir Ivanov

1.5. **Determining the Network Security Level of a Module from an Automation System**
Ivan Nedyalkov, Georgi P. Georgiev, Vasil Petkov

1.6. **Stress Testing of a Module in an Automation System**
Ivan Nedyalkov, Georgi P. Georgiev

1.7. **Architecture and Testbench of a Browser-Based Signal Monitoring System Using WebSocket and Web Serial for Wearable BCI**
Vanessa Nazakova

1.8. **Design of an Audio and Data Visible Light Communication System for Vehicle-to-Vehicle Connectivity in Smart Cities**
Tsvetan Valkovski

1.9. **Implementation of Secure Communication in an IoT System and Testing it Against Attacks**
Ivan D. Ivanov, Aleksandar Palagachev

14.10 – 15.40
26.11.2026 г.

Section Session 2, Hall 3 & Virtual Room 1
TELECOMMUNICATIONS THEORY. SIGNALS AND SYSTEMS. IMAGE PROCESSING AND CODING.
Chairman: Assoc. Prof. Boncho Bonev, PhD

2.1. **Synergistic Multichannel Entropy-Guided Covariance Decomposition for Image Segmentation Using Random Matrix Theory**
Georgi K. Petrov

2.2. **Luminance Distribution Laws for Displaying HDR Images on Standard Dynamic Range Displays**
Mykola Patlaienko, Olena Osharovska, Andrii Doroshuk, Valentina Solodka, Ivan Tomashevskyi, Oleksandr Hohniak

2.3. **A Modified 2D MCASH-CFAR Detector: Performance Evaluation Using a Flexible Statistical Radar Image Model**
Petar Stanoev, Ilia Iliev

2.4. **Classification of Radio Channels with Multipath Propagation Using Machine Learning Algorithms**
Mate M. Mezei, Zsuzsanna I. Suta, Zsolt A. Polgar

2.5. **Simple Directivity Formula for High-Selectivity Two-Element Antenna Array**
Peter Apostolov

2.6. **Interferometric Pattern Analysis Through Frequency and Geometry in LPDA System and LOFAR`s HBA Tiles**
Pavlina Aleksieva

2.7. **Performance of DPSK MIMO System over Strong k-Distributed Turbulence Channels**
Omar Hasan, Georgi Iliev

2.8. **Analysis of Communication Protocols Used in Automotive Networks**
Tsvetan Marinov, Maria Nenova

15.50 – 17.20
26.11.2026 г.

Section Session 3, Hall 3 & Virtual Room 1
BIG DATA NETWORKING. ARTIFICIAL INTELLIGENCE IN ICT
Chairmen: Prof. Krasen Angelov, PhD

3.1. **Controlled Evaluation of LLM-Assisted Multi-Objective Synchronous Buck Converter Design**
Mihail Lozev, Nikolay Hinov, Milena Lazarova

3.2. **A Comparative Evaluation of Adversarial Training and Gaussian Data Augmentation Against Adversarial Machine Learning Attacks**
Iliya I. Iliev, Dimitriya Mihaylova, Zlatka Valkova-Jarvis

3.3. **IoT Meteorological Sensors Calibration via Random Matrix Theory and Optimal Transport**
Georgi K. Petrov

3.4. **An Optimisation Model for IoT Device Replacement Using Machine Learning for Support-Obsolescence Scoring**
Iliyan Vasilev, Gabriela Peneva

3.5. **AI Instrumentalization: Selecting AI Implementation Models Beyond Digitalization**
Ioannis Patias

3.6. **Improving Cybersecurity with Artificial Intelligence Chatbots: Detecting and Preventing Cyber Threats**
Maria Nenova, Elina Tlachenska, Kiril Ivanov

3.7. **An AI Integration Concept for Cold Nuclear Fusion Reactor Control**
Todor Malchev, Yordan Paunov, Milena Lazarova, Dilyana Gospodinova, Dimiter Alexandrov

3.8. **Sequence Models and Tabular Baselines for Next-Day Cryptocurrency Direction Forecasting**
Valentin Drenkov, Yavor Tomov

3.9. **A Survey for Analysis and Classification of Earth Observation Satellite Images with Integration of Quantum Layers into Neural Networks**
Yancho Yordanov, Todor D. Tsvetkov, Doncho Filipov, Mariana Filipova, Vladimir Ranchev

Poster Session 4, Hall 3 & Virtual Room 1

17.30 – 18.10
26.11.2026 г.

INTERNET OF THINGS (IoT). ARTIFICIAL INTELLIGENCE IN ICT
Chairmen: Assoc. Prof. Dimitar Arnaudov, PhD, Stefan Patchedjiev, PhD

4.1. **Programming a Collaborative Robot in Natural Language: An AI-Agent Methodology for Student Onboarding**
Georgi D. Georgiev, Georgi Hristov, Plamen Zahariev, Diyana Kinaneva, Nikolay Kutinchev

4.2. **Performance Analysis of DWB and MPPI Controllers for Dynamic Obstacle Avoidance Using the myAGV Platform**
Antoniya De Amorim, Vladimir Hristov

4.3. **Robustness Evaluation of 2D SLAM Algorithms under LiDAR Noise and Odometry Degradation in ROS 2**
Antoniya De Amorim, Vladimir Hristov

4.4. **Parasitic Effect Mitigation in Auxiliary Subsystem for a Rewind Power Supply Converter**
Georgi Balev

4.5. **Evaluating the Impact of Communication Delay and Packet Loss on Adaptive Traffic Signal Control Using Microscopic Simulation**
Yordanka Boneva, Kristina Pavlova, Desislava Kioseva

4.6. **Automated Hydrometeorological Monitoring and Water pH Measurement System for a Water Supply Reservoir**
Stefan Sadkov, Stanislav Asenov, Angel Chekichev, Anatoliy Parushev

4.7. **Parametric Generation of Propellers for Multirotor Unmanned Aerial Vehicles using CadQuery and Python for 3D Printing**
Ventsislav Nachev

4.8. **Webcam-based Gaze Interaction Prototype for People with Severe Motor Impairments**
Vasil Pechovski, Radoslav Miltchev, Kalin Krumov, Antonia Gadzhalova

4.9. **Zigbee Wireless Sensor for Greenhouse Microclimate Monitoring**
Nikolay Manchev

4.10. **Economic Dimensions of Customer Loyalty to Mobile Operators in Bulgaria**
Nikolay Todorov, Megi Dakova

18.10 – 18.45
26.11.2026 г.

Discussion, Hall 3 & Virtual room 1
Methods and Means for Enhancing ICT Platforms through Restructuring, Semantic Organization, and Improved Access to Provided Information
Chairmen: Prof. Ivan Kurtev, PhD, Prof. Ivan Ganche, PhD

19.00 – 20.30
26.11.2026 г.

Informal Meeting Forum - Cocktail – Hall 3

Friday,
27.11.2026 г.

NATIONAL SCIENCE AND TECHNICAL CENTRE
Hall 3 & Virtual Room 2 Meeting ID: 629 615 7598, Passcode: WZJF1P

08.00 – 09.30
27.11.2026 г.

Section Session 5, Hall 3 & Virtual Room 2
TELECOMMUNICATIONS NETWORKS AND SERVICES. NEXT GENERATION NETWORKS (NGN). SOFTWARE DEFINED NETWORKS.
Chairman: Assist. Prof. Rositsa Goleva, PhD

5.1. **Beyond Connectivity: The Transformation of Internet Service Providers into AI-Native Digital Infrastructure Platform**
Ionka Gancheva, Kamelia Nikolova

5.2. **Experimental Performance Evaluation of Grey Wolf Optimization for Traffic-Aware Routing in Software-Defined Networks**
Spasimir Varshilov, Iliyan Iliev, Kamelia Nikolova

5.3. **Comparative Analysis of SDR Processing Modes for Radio-Frequency Monitoring of Unmanned Aircraft Systems**
Rosen Pasarelski, Teodora Pasarelska, Krasen Angelov

5.4. **Development of an Active Network TAP Monitoring System**
Aleksandar Hristov, Ivan Garnizov, Deyan Daneshki

5.5. **Researching the Impact of Various TCP Stress Test Attacks on the Performance of PDUs**
Georgi P. Georgiev

5.6. **Researching the Impact of a UDP Stress Test Attack on the Performance of PDUs**
Georgi P. Georgiev

5.7. **A Geographic-Topological Model for GPON Access Network Planning**
Muxsin Muxitdinov, Axrorbek Yo'ldashev, Erkinjon Xolmatov, Sherzod Axmedov, Abror Tojiboyev, Muxayo Tojiboyeva

5.8. **The Next Generation of Data Centers: Architectural Transformation Beyond Conventional Virtualization**
Ionka Gancheva, Kamelia Nikolova

5.9. **Application of Fuzzy Set Theory in Data Center Infrastructure**
Nikola Apostolov, Georgi Balabanov

09.40 – 11.10
27.11.2026 г.

Section Session 6, Hall 3 & Virtual Room 2
TELETRAFFIC ENGINEERING. QUALITY OF SERVICE (QOS) AND RESOURCE MANAGEMENT.
Chairman: Assoc. Prof. Kiril Kassev, PhD

6.1. **Causal Scalability of Relationship between Traffic Quality and User Response.**
Stoyan Poryazov, Velin Andonov, Ivan Ganchev

6.2. **Intuitionistic Fuzzy Estimation of Traffic Quality.**
Stoyan Poryazov, Velin Andonov, Ivan Ganchev

6.3. **QoSD and QoSE Factors in Overall Telecommunication Systems.**
Stoyan Poryazov, Velin Andonov, Ivan Ganchev

6.4. **Extended Service Stage Concept – a Foundation for Scalable, Technologically Independent Performance Modeling in Overall Telecommunication Systems.**
Stoyan Poryazov, Emiliya Saranova, Ivan Ganchev

6.5. **Induced and Suppressed Call Attempts – Important but Overlooked.**
Stoyan Poryazov, Emiliya Saranova, Ivan Ganchev

6.6. **Detection of Induced Call Sequences in Call Detail Records Using Temporal Rules and Embedding-Based Probabilistic Models**
Boyan Kolev, Stanislav Gavalyugov, Stoyan Poryazov

6.7. **Parallel Monte Carlo Estimation of Cadastral Parcel Area Uncertainty on an ARM Edge Node: Thread Scheduling, Load Imbalance and Energy**
Boyko Karkov, Hristo Grigorov

6.8. **Zero-Codegen Protocol Buffers via C++26 Static Reflection and Compile-Time Metaprogramming**
Alex I. Tsvetanov

6.9. **Measuring Detection Engineering Effectiveness: A Quantitative Framework for Cloud-Native Threat Detection**
Monika Velkova, Kamelia Nikolova, Maria Nenova

11.20 – 12.50
27.11.2026 г.

Section Session 7, Hall 3 & Virtual Room 2
SOFTWARE-DEFINED RADIO. MOBILE COMMUNICATIONS. ECONOMICS AND MARKETING OF ELECTRONIC COMMUNICATIONS.
Chairmen: Prof. Georgi Hristov, PhD

7.1. **A Software-Defined Radio Transceiver Prototype with Adaptive Modulation and Feedback**
Ivan I. Ivanov, Ivan P. Ivanov

7.2. **Joint Soft Combining in a Two-Transmit, Two-Receive Alamouti Software-Defined Radio Modem: Design and Over-the-Air Evaluation**
Ivan P. Ivanov

7.3. **Extending MEPI with Wi-Fi Direct for Urgent Message Distribution to User Devices**
Lazar Pendov, Máirtín O'Droma, Ivan Ganchev

7.4. **Communication-Aware Cooperative Energy Prediction for Electric Vehicles in Intelligent Transportation Systems**
Zoran Zlatev, Mirjana K. Vitanova, Aleksandar Krstev, Sara Srebrenkoska, Dejan Krstev

7.5. **Digital Leadership and Artificial Intelligence in Postal Logistics: A Conceptual Model**
Siyka Demirova, Sibel Ahmedova

7.6. **A Study of the Relationship between the Use of Artificial Intelligence Technologies and the Innovation Activity of Telecommunications Enterprises in Bulgaria**
Sibel Ahmedova, Siyka Demirova

7.7. **A Canonical LoRa Receiver on the HackRF One: Exploiting the Coupled Oscillator for Synchronization and Tracking**
Yurii Karaush, Mykola Patlaienko

7.8. **A Symbol-at-a-Time LoRa Receiver for Spreading Factors Beyond the Standard: Reducing the Memory Requirement to Sensor-Class Hardware**
Yurii Karaush, Mykola Patlaienko

13.30 – 15.00
27.11.2026 г.

Section Session 8, Hall 3 & Virtual Room 2
QUANTUM COMMUNICATIONS. NETWORK SECURITY.
Chairmen: Prof. Georgi Petrov, PhD

8.1. **Quantum Computer Attacks Analysis**
Elena Mechenova, Stivan Linkov, Maria Nenova, Rumen Doynov

8.2. **Hybrid Post Quantum Key Establishment with ML-KEM in TLS 1.3: Security, Performance and Migration Challenges**
Sachira Sakalasooriya, Dharani Abeysinghe, Rameesha Kankanamge, Ramanaruban Rangana

8.3. **PHP2Shell: Why Perimeter Defenses Fail Against Pre-Application Memory-Corruption Attacks in the PHP Runtime**
Kiril Ivanov, Maria Nenova, Elina Tlachenska, Rumen Doynov

8.4. **Decoy Files and Inert Persistence Artifacts as High-Confidence Signals for Host-Based Detection on Linux**
Aleksandar Hadzhiev, Stivan Linkov, Maria Nenova, Spasimir Varshilov

8.5. **Design of a Bounded Remote-Access Behavior Simulator for Reproducible Ground-Truth Generation**
Aleksandar Hadzhiev, Stivan Linkov, Maria Nenova, Aleksandar Zarkov

8.6. **Lightweight Linux Host Telemetry Collection for Intrusion Detection Using Procfs Polling and Inotify**
Aleksandar Hadzhiev, Stivan Linkov, Maria Nenova, Aleksandar Zarkov

8.7. **Securing Electronic Patient Records: Statistical Analysis of Encryption and Transmission Time for Classical, Post-Quantum, Quantum-Keyed and Blockchain-Based Methods**
Sofoklis Christoforidis, Dimitrios Thomopoulos, Efstathios Titopoulos, Eleni Kromitoglou, Boriana Ilieva, Georgi Stanchev

8.8. **Coloured Petri Net Modelling and Validation of Concurrent Distributed Database Architectures for Electronic Health Records, with Quantum Fisher-Information-Based Performance Prediction**
Sofoklis Christoforidis, Athanasios Thomopoulos, Efstathios Titopoulos, Eleni Kromitoglou, Boriana Ilieva-Mihaylova, Daniela Minkovska

15.10 – 16.40
27.11.2026 г.

Section Session 9, Hall 3 & Virtual Room 2
RESEARCH/EDUCATION METHODOLOGIES IN ICT.
Chairmen: Assoc. Assoc. Prof. Ivan Nedyalkov, PhD

9.1. **Methodological Approaches to Amateur Radio Communications in Antarctica: A Case Study of the 34th Bulgarian Antarctic Expedition**
Ivaylo Nachev

9.2. **Artificial Intelligence in ICT Project Management: A Survey of Perceived Productivity, Project Success, and Methodological Preferences**
Mirjana K. Vitanova, Aleksandar Krstev, Kristina Petrova, Zoran Zlatev, Elena K. Gelova, Biljana Zlatanovska

9.3. **Gamifying Quantum Computing Education: A Theoretical Framework for Motivation, Conceptual Understanding, and Progressive Mastery**
Serafeim A. Triantafyllou

9.4. **Suggestopedic-Oriented Programming Methodology: Outcomes and Participation**
Ralitza Raynova

9.5. **Application of Machine Learning Algorithms in STEM Education for Training Future Teachers**
Meruyert Serik, Aigul Sadvakassova, Gulmira Nurbekova, Nurzhanar Karilkhan

9.6. **Comprehensive Sensor System for Measuring Variations in Albedo Coefficients over Natural and Urban Surfaces**
Ivaylo Nachev, Tsvetan Valkovski, Stoycho V. Manev

9.7. **Study of Some Types of Nonlinear Electronic Circuits**
Ivo N. Dochev, Lilyana E. Docheva, Stoycho V. Manev, Ivaylo N. Nachev

9.8. **Decoder-Based Reversible Function Synthesis Using TSG Gates: An Educational Framework for Three-Variable Logic Design**
Adriana Borodzhieva

Poster Session 10, Hall 3 & Virtual Room 2

16.50 – 18.00
27.11.2026 г.

RESEARCH METHODOLOGIES IN ICT. BIG DATA NETWORKING.
Chairmen: Assoc. Prof. Dimitar Arnaudov, PhD, Stefan Patchedjiev, PhD

10.1. **Design and Implementation of a Smart Home System Based on ESP32 and MQTT Protocol**
Snezha Shotarova, Serghei Staicov, Slavi Lyubomirov

10.2. **CPU Frequency Governors on a Raspberry Pi 5 Edge Node: Energy and Thermal Behaviour Under Sustained and Periodic Load**
Boyko Karkov

10.3. **SiC Based Power Supply Units for AI Server Applications**
Krasimir Kishkin, Dimitar Arnaudov

10.4. **Digital Twins in Cadastral Optimization: From Raw Land to IoT-Enabled Multi-Storey Parking**
Hristo Grigorov

10.5. **Modeling Power Supply Systems for AI Data Centers**
Krasimir Kishkin, Dimitar Arnaudov, Maria Slavova, Dimitar Serafimov

10.6. **Lightweight Deep Learning Architectures for Microscopic Image Analysis: A Comparative Study and Evaluation Framework**
Veselin Krachunov, Dimitar Pepedzhiev

10.7. **Communication Infrastructure for Control of Small Hydropower Plants in Distribution Networks: A Critical Review**
Hristo G. Hristov, Maria Tz. Pavlova

10.8. **Real-Time Human Action Recognition from Video Sequences Using Pose Estimation and Transformer Networks**
Maria Yotova

10.9. **Analysis of Traffic Time Series Using K-medoids Clustering**
Teodora Mecheva

10.10. **Design of Digital Twin Ecosystems for Human-Machine and Machine-to-Machine Interaction**
Petko Yakimov

Information
for the participants and guests of Telecom 2026

Until 25 November 2026 detailed information on issues of the Conference can be obtained at the National House of Science and Technology in Sofia, 108 Rakovski St., V Floor, Room 506 or by phone: 02 987-97-67.

Email of the conference: telecom.ceec@gmail.com

Website of the conference: http://e-university.tu-sofia.bg/e-conf/?konf=37

Registration fee: Participants with/without a paper - Euro 250, Students - Euro 150, The student fees are paid when all authors of the paper are students and/or PhD student., IEEE Members Discount - 15 %. CEEC members have preferential fees, The fee should be preferably paid before November 24, 2026 through a bank transfer.

Participants are kindly requested to send a Payment Order copy with details of payment to the Organizing Committee, or present it upon registration.

By way of exception, the Registration Fee may be paid upon arrival at the Conference site (Euro 275).

The Registration Fee includes admission to all Conference events, a set of Conference materials (program, abstracts etc.).

The Organizing Committee will award a young author (up to 35 years old) for the best individually presented paper with substantial scientific research contribution.

