

Federation of the Scientific-Technical Unions in Bulgaria (FNTS)
Union of Electronics, Electrical Engineering and Telecommunications (CEEC)
IEEE Bulgarian Section
Ministry of Transport, Information Technology and Communications
Communications Regulation Commission
Technical University of Sofia
Faculty of Telecommunications - TUS
Union of Scientists in Bulgaria
Telecommunications Association (ASTEL)
27-th NATIONAL CONFERENCE
WITH INTERNATIONAL PARTICIPATION

TELECOM 2019

THE WAYS TO CONNECT THE FUTURE



P R O G R A M M E

30 - 31 October 2019
National Science and Technical Centre,
108 Rakovsky St. – Sofia

**TELECOM 2019 is technically Co-Sponsored by IEEE:
2019 27th National Conference with
International Participation - #48729**

General partner:



"А1 БЪЛГАРИЯ" ЕАД

**The conference is organized
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VDE**

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TELECOM 2019 SESSIONS TIMETABLE

<i>Date</i>	<i>Time</i>	<i>Sessions</i>
Wednesday 30.10.2019		Plenary Session 1, hall 3
	10.00 – 12.00	Conference Opening Chairman: Assoc. Prof. Plamen Vachkov, PhD Greetings Presentations: 1. MTITC, 2. SEGA, 3. CRC, 4. A1 Bulgaria
	13.00 - 15.30	Plenary Session 2, hall 3 Chairman: Assoc. Prof. Alexander Nenkov, PhD Presentations: 5. Dimitar Avresky, 6. Antoni Slavinski, 7. Kamen Rangelov, 8. Nikola Durchev, 9. Kiril Konov
	16.00 – 17.30	Section Session 1, hall 3 TELECOMMUNICATION NETWORKS. COMMUNICATION CIRCUITS, SIGNALS AND SYSTEMS. Chairman: Prof. Elena Shoikova PhD Presentations: Papers: 1.1, 1.2, 1.3,.1.4, 1.5, 1.6
	17.35 – 18.15	Session “Round Table”, hall 3 HENGTONG OpticElectric – Reliable supplier of optic cables Telco Trends and Transformation Priorities Discussion: IoT – INTERNET OF THINGS MOBILE NETWORKS CLOUD COMPUTING Chairman: Assoc. Prof. Plamen Vachkov, PhD, Assoc. Prof. Kamen Rangelov, PhD
	19.00 – 20.30	Informal meeting forum - Cocktail – Hall 3

<i>Date</i>	<i>Time</i>	<i>Sessions</i>
Thursday 31.10.2019	08.30 – 10.00	Section Session 2, hall 3 INTERNET OF THINGS (IOT). CYBERSECURITY. Chairman: Prof. Seferin Mirtchev, DSc Papers: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6
	10.15 – 11.15	Section Session 3, hall 3 Poster Sessions SOFTWARE DEFINED NETWORKS. IMAGE PROCESSING AND CODING. EDUCATION IN THE FIELD OF TELECOMMUNICATION. Chairman: Assoc. Prof. Dimitar Arnaudov, PhD Papers: 3.1, to 3.10
	11.30 – 12.30	Section Session 4, hall 3 Poster Sessions WIRELESS SYSTEMS. TELECOMMUNICATION NETWORKS. CLOUD COMPUTING COMMUNICATIONS. Chairman: Assoc. Prof. Georgi Petro, PhD Papers: 4.1 - 4.10
	12.45 - 13.30	Section Session 5, hall 3 ECONOMICS OF ELECTRONIC COMMUNICATIONS AND POSTAL DELIVERY SERVICES. Chairman: Prof. Boris Yovchev, PhD Papers: 5.1, 5.2, 5.3
	13.35	Closing of the Conference, hall 3
		Assoc. Prof. Plamen Vachkov, PhD

CONFERENCE PROGRAMME

**Wednesday,
30.10.2019 г.**

NATIONAL SCIENCE AND TECHNICAL CENTRE

09.00 – 12.00

Registration

10.00 – 12.00

Plenary Session 1, hall 3

Conference Opening, Greetings

Chairman: Assoc. Prof. Plamen Vachkov, PhD

1. "Directive of the European Parliament and of the Council to Establish an European Code for Electronic Communications and a Regulation of the European Parliament and of the Council to Establish a Body of European Regulators for Electronic Communications"

Dimitar Dimitrov - Director of Communications Directorate,

Ministry of Transport, Information Technology and Communications

2. "The New Network and Information Security Regulations - Challenges and Solutions"

Vasil Grancharov, Director of the Network and Information Security Directorate,

State e-Government Agency

3. Presentation

Communications Regulation Commission

4. Presentation

A1 Bulgaria - provider of digital services and telecommunication solutions

12.00 – 13.00

Lunch Break

13.00 – 15.30

Plenary Session 2, hall 3

Chairman: Assoc. Prof. Alexander Nenkov, PhD

5. "Future Internet – based on AI (Artificial Intelligence)"

Dimitar Avresky,

International Research Institute for Autonomic Network Computing (IRIANC) - Association,
Boston, MA, USA / Munich. Germany

6. "Notes on Telecommunications – 2019"

Kamen Rangelov – **CEEC**

7. "Complexes, Phobias and Deficits - Artificial Intelligence"

Antoni Slavinski - **ASTEL**

8. "EU Economic Development Strategy - Industrialization, Digitization and the Path of Bulgaria"

Nikola Durchev,

Balkantel Ltd.

9. "State and Prospects of Digital TV Broadcasting"

Kiril Konov – **CEEC**

16.00 – 17.30

Section Session 1, hall 3

**TELECOMMUNICATION NETWORKS. COMMUNICATION CIRCUITS,
SIGNALS AND SYSTEMS.**

Chairman: Prof. Elena Shoikova PhD

- 1.1. Control of the Chaotic Processes in Chaos Shift Keying Communication System
Galina Cherneva
- 1.2. Application of Hausdorff Window for Array Antennas Design
Peter Apostolov, Alexey Stefanov and Snezhina Andonova
- 1.3. Software Platforms for Modeling of Telecommunication Networks
Ivan Nedyalkov, Alexey Stefanov and Georgi Georgiev
- 1.4. Use of Adaptive Antenna Arrays to Reduce Interference in the E-UTRA Network
D. Makoveenko, S. Siden, V. Pyliavskyi and R. Fokin
- 1.5. Wavelet Feature Family for Image Compression
Elena Osharovskaya
- 1.6. Adaptation of the image to spectral distribution of the light source
Pyliavskyi Volodymyr

17.35 – 18.15

Session “Round Table”, hall 3

HENG TONG OpticElectric – Reliable supplier of optic cables

Telco Trends and Transformation Priorities

Discussion:

**IoT – INTERNET OF THINGS,
MOBILE NETWORKS,
CLOUD COMPUTING**

Chairman: Assoc. Prof. Plamen Vachkov, Assoc. Prof. Kamen Rangelov

19.00 – 20.30

Informal meeting forum - Cocktail – Hall 3

**Thursday,
31.10.2019**

NATIONAL SCIENCE AND TECHNICAL CENTRE

08.30 – 10.00

Section Session 2, hall 3

INTERNET OF THINGS (IOT). CYBERSECURITY.

Chairman: Prof. Seferin Mirtchev, DSc

- 2.1. Indoor particulate matter (PM) monitoring and analysis
Rosen Miletiev, Emil Iontchev, Rumen Yordanov
- 2.2. Thermographic analysis of tyres during chassis dynamometer test
Kalin Dimitrov and Ilian Damyanov
- 2.3. Energy Efficient Routing Protocols in Resource Constrained IoT Networks
Ravinder Beniwal, Kamelia Nikolova, Georgi Iliev
- 2.4. Immersion in Virtual Reality Video Games for Improving Physical Performance measures:
A review
Kiril Todorov, Agata Manolova, Georgi Chervendinev

- 2.5. One Method of Network Cyber-security, Based on Artificial Intelligence
Roumen Trifonov, Ognyan Nakov, Slavcho Manolov, Georgi Tsochev, Galya Pavlova
- 2.6. The Consequences from DNS Security Weaknesses
Willian Dimitrov

10.15 – 11.15 Section Session 3, hall 3

Poster Sessions

SOFTWARE DEFINED NETWORKS. IMAGE PROCESSING AND CODING. EDUCATION IN THE FIELD OF TELECOMMUNICATION.

Chairman: Assoc. Prof. Dimitar Arnaudov, PhD

- 3.1. Optimizing SDN Control Plane Scalability by Efficient Switch to Controller Migration
Jordan Raychev, Diyana Kinaneva, Georgi Hristov and Plamen Zahariev
- 3.2. Investigating the Possibilities of Integrating Cloud Weather Data into Existing Applications
Jordan Raychev, Diyana Kinaneva, Georgi Hristov, Plamen Zahariev and Gergana Staevska
- 3.3. Application of Artificial Intelligence in UAV platforms for Early Forest Fire Detection
Diyana Kinaneva, Georgi Hristov, Jordan Raychev and Plamen Zahariev
- 3.4. Methods for Forming and Transmitting Hypermedia Images by Using Modern Communication Technologies
Venko Kacarov, Aneliya Stanoeva, Anton Stoilov, Alexey Stefanov, Filip Batalov
- 3.5. Approach for MIMO Wireless Channel Modelling and System Characterization for an Indoor Environment
Stanimir Sadinov, Krasen Angelov, Panagiotis Kogias, Michail Malamatoudis
- 3.6. Investigation of the Reliability of Service Equipment in Communication Networks
Krasen Angelov and Stanimir Sadinov
- 3.7. C # Implementation of Maximum Network Flow Problem
Fatima Sapundzhi and Metodi Popstoilov
- 3.8. Standardization of Mobile Usability: Is The Mission Possible?
Radka Nacheva
- 3.9. Analysis of RF Measurements in the Receiver Unit and the Transmitter Unit Using a Training Kit
Ivanka Tsvetkova and Adriana Borodzhieva
- 3.10. Snippets Transformation and Digitalization of Business Processes in Telecommunication Companies of Kazakhstan
Arman Maralov, Mariana Petrova

11.30 – 12.30 Section Session 4, hall 3

WIRELESS SYSTEMS. TELECOMMUNICATION NETWORKS. CLOUD COMPUTING COMMUNICATIONS.

Chairman: Assoc. Prof. Georgi Petrov, PhD

- 4.1. Investigation of Pareto/M/1/k Teletraffic System by Simulation
Seferin Mirtchev
- 4.2. Development of a Programming Continuous Integration System
Vladimir Dimitrov and Kolio Kolev
- 4.3. Development of a Mobile Movie Recommendation Application
Vladimir Dimitrov and Kolio Kolev
- 4.4. Blockchain based decentralized approach for cloud computing
Anatoly Peshev

- 4.5. Research of Communication between STM32L475 and Private Cloud realized by using Amazon FreeRTOS and MQTT
Neven Nikolov and Ognyan Nakov
- 4.6. Comparative study Java vs Kotlin
Daniela Gotseva, Yavor Tomov and Petko Danov
- 4.7. Multi-lead ECG Compression Approach using Combination of Linear Transformations
Yuliyana Velcheva
- 4.8. Recursive algorithm for Discrete Fourier Transformation of second kind
Emil Frenski
- 4.9. Comparison of Computed Specific Absorption Rate Induced in a Homogeneous Human Body Phantom Using a Wearable Textile Antenna for Biomedical Applications
Gabriela Atanasova, Nikolay Atanasov, Aleksey Stefanov, Snezhina Andonova, Manol Avramov and Margarita Kateva
- 4.10. Challenges of blockchain technologies in the future
Yavor Tomov

12.45 – 13.30 Section Session 5, hall 3
ECONOMICS OF ELECTRONIC COMMUNICATIONS AND POSTAL DELIVERY SERVICES.

- 5.1. On the Subject of Resuming the Monopoly of the “Bulgarian Posts”
Zdravko Mihaylov and Valentin Tsenov
- 5.2. Potential Problems Related to EMC Caused by Low-Altitude Flying Powerful Electrical Rotorcrafts in Urban Environment
Georgi Petrov
- 5.3. The Old News in 2019 in the Infrastructure and Networks Legislation
Kamena Tsaneva, Darina Stoyanova

13.35 CLOSING OF THE CONFERENCE, hall 3.

Information

Until 30 October 2019 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 and 0887508262.

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

Website of the conference: <http://ceec.fnts.bg/telecom>

Registration fee: Participants with/without a paper - Euro 150, Students - Euro 75, IEEE and CEEC Members Discount -15 %. The fee should be preferably paid before October 28, 2019 through a bank transfer on the account of:

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CEEC, TELECOM 2019, participant's name

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

The Registration Fee can be paid in cash at the Office of CEEC: 108, Rakovsky Str., Sofia 1000.

By way of exception the Registration Fee may be paid upon arrival at the Conference site in cash (Euro 180).

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

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

