

Federation of the Scientific-Technical Unions in Bulgaria (FNTS)
Union of Electronics, Electrical Engineering and Telecommunications (CEEC)
Ministry of Transport, Information Technology and Communications
The Communications Regulation Commission
Technical University of Sofia
Union of Scientists in Bulgaria
Telecommunications Association (ASTEL)
24-rd NATIONAL CONFERENCE
WITH INTERNATIONAL PARTICIPATION

TELECOM 2016

WE ARE CONNECTED!



PROGRAMME

27 - 28 October 2016
National Science and Technical Centre,
108 Rakovsky St. – Sofia

General sponsor:



**The conference is organized
with contribution from:
Technical University - Sofia,
Balkantel Ltd.,
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TELECOM 2016 SESSIONS TIMETABLE

<i>Date</i>	<i>Time</i>	<i>Sessions</i>
Thursday 27.10.2016		Plenary Session 1, hall 3
	10.00 – 12.00	Conference Opening Chairman: Assoc. Prof. Plamen Vachkov, PhD Greetings Papers: 1. MTITC, 2. MTel, 3. Balkantel 4. Kamen Rangelov
	13.00 - 14.45	Plenary Session 2, hall 3 Chairman: Assoc. Prof. Seferin Mirtchev, PhD Papers: 5. BCCI, 6. Elena Sjoykova, 7. Kiril Konov, 7. Apostol Apostolov
	15.00 – 16.00	Section Session 1, hall 3 TELECOMMUNICATIONS AND INFORMATION TECHNOLOGIES Chairman: Assoc. Prof. Kamen Rangelov, PhD Papers: 1.1, 1.2, 1.3, 1.4
	16.15 – 17.15	Section Session 2, hall 3 NGN. NETWORKS OF THE FUTURE. SOFTWARE DEFINED NETWORKS. ASPECTS OF POSTAL SERVICES Chairman: Assoc. Prof. Alexander Nenkov, PhD Papers: 2.1, 2.2, 2.3, 2.4
	17.30 - 18.30	Plenary Session 3, hall 3 “Round Table” Discussion 5G – MOBILE COMMUNICATION OF NEXT GENERATION. IoT – INTERNET OF THINGS. THE “PRAVETS” TRADEMARK - RESURRECTION Chairmen: Prof. Kamen Rangelov, PhD, Prof. Plamen Vachkov, PhD
	19.00 – 20.30	Cocktail – Hall 2

<i>Date</i>	<i>Time</i>	<i>Sessions</i>
Friday 28.10.2016	08.30 – 09.00	<p>Section Session 3, hall 3</p> <p>INTERNET OF THINGS AND INTERNET OF PEOPLE</p> <p>Chairman: Assoc. Prof. Seferin Mirtchev, PhD</p> <p>Papers: 3.1, 3.2</p>
	09.00 – 09.30	<p>Section Session 4, hall 3</p> <p>WIRELESS COMMUNICATIONS. SHARING OF RADIO SPECTRUM. DIGITAL SWITCHOVER.</p> <p>Chairman: Prof. Luben Tonev, PhD</p> <p>Papers: 4.1, 4.2</p>
	09.45 – 10.45	<p>Section Session 5, hall 3</p> <p>TELECOMMUNICATION NETWORKS AND TELETRAFFIC – POLITICS. PLANNING AND MANAGEMENT</p> <p>Chairman: Assoc. Prof. Dimitar Arnaudov, PhD</p> <p>Papers: 5.1, 5.2, 5.3, 5.4</p>
	11.00 - 11.45	<p>Section Session 6, hall 3</p> <p>COMMUNICATION CIRCUITS, SIGNALS AND SYSTEMS</p> <p>Chairman: Prof. Boris Yovchev, PhD</p> <p>Papers: 6.1, 6.2, 6.3</p>
	12.00 - 12.30	<p>Section Session 7, hall 3</p> <p>EDUCATION IN THE FIELD OF TELECOMMUNICATION</p> <p>Chairman: Assoc. Prof. Krastu Mirski, PhD</p> <p>Papers: 7.1, 7.2</p>

<i>Date</i>	<i>Time</i>	<i>Sessions</i>
Friday 28.10.2016	12.30 - 12.40	<p align="center">Section Session 8, hall 3</p> <p align="center">OVERVIEW PAPERS (IN SUPPORT OF PRACTICAL APPLICATIONS)</p> <p align="center">Chairman: Assoc. Prof. Kamen Rangelov, PhD</p> <p align="center">Papers: 8.1</p>
	12.45	<p align="center">Closing of the Conference, hall 3</p> <p align="center">Assoc. Prof. Plamen Vachkov, PhD</p>

CONFERENCE PROGRAMME

**THURSDAY,
15.10.2016 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. 26TH CONGRESS OF THE UNIVERSAL POSTAL UNION - RECENT DEVELOPMENTS
IN THE POSTAL SECTOR
Iliana Karafezieva - Expert "Development of postal services", Directorate of "Communications "
MTITC
2. 3G HIGH SPEED PACKET ACCESS EVOLUTION: DUAL BAND - DUAL CARRIER
Mihail Mihailov – Mobiltel EAD
3. INDUSTRIAL STRATEGY BASED ON THE FOURTH DIGITAL REVOLUTION WITH
THE PRIORITY NO INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)
Nikola Dourtchev – Balkantel
4. NOTES ON TELECOMMUNICATIONS - 2016
Kamen Rangelov – CEEC

12.00 – 13.00 **Lunch Break**

13.00 – 14.45 Plenary Session 2, hall 3
Chairman: Assoc. Prof. Seferin Mirtchev, PhD

5. ELECTRONIC RECORDS OF BULGARIAN CHAMBER OF COMMERCE AND INDUSTRY
Ivanka Ivanova - Head of Computer and Information Systems, BCCI
6. EDUCATION IN THE SMART CITY
Elena Shoikova, R. Nikolov, M. Krumova E. Kovacheva, V. Dimitrov, A. Shikalanov - UNIBIT
7. STATUS AND TRENDS IN THE DIGITAL BROADCASTING
Kiril Konov – CEEC
8. STAGES IN THE DEVELOPMENT AND THE PRODUCTION OF THE TELEVISION
RECEIVERS IN BULGARIA
Apostol Apostolov – CEEC

15.00 – 16.00 Section Session 1, hall 3
TELECOMMUNICATIONS AND INFORMATION TECHNOLOGIES
Chairman: Assoc. Prof. Kamen Rangelov, PhD

- 1.1. SCP-RPSC - THE KEY TECHNOLOGY IN THE NEXT GENERATION STEERABLE
LINES FOR SATELLITE COMMUNICATIONS
Veselin Demirev – TU-Sofia

1.2. CHALLENGES FOR PROVIDING SECURITY IN INTERNET OF THINGS

Tsvetomir P. Gyuretsov, Plamen Z. Zahariev, Georgi V. Hristov – University of Ruse “Angel Kanchev”

1.3. ON THE POSSIBILITY OF IMPROVING THE CHARACTERISTICS OF PROTOCOLS FOR TELEMETRY DATA TRANSMISSION FROM UNMANNED AERIAL VEHICLE

Svilen Borisov, Jordan Raychev, Georgi Hristov, Plamen Zahariev–University of Ruse “Angel Kanchev”

1.4. COMPARATIVE ANALYSIS OF TECHNOLOGIES FOR 3D OBJECTS REPLICATION

Ivanka D. Tsvetkova, Plamen Z. Zahariev–University of Ruse “Angel Kanchev”

15.15 – 15.30

Break

16.00 – 16.15

Section Session 2, hall 3

NGN. NETWORKS OF THE FUTURE. SOFTWARE DEFINED NETWORKS. ASPECTS OF POSTAL SERVICES

Chairman: Assoc. Prof. Alexander Nenkov, PhD

2.1. IMPROVING THE VOICE TRAFFIC IN WLAN NETWORK

Vladimir Dimitrov – Technical University of Sofia

2.2. SERVICE MODELS OF CLOUD SOFTWARE-DEFINED RADIO

Ivan Penchev Ivanov – Directorate, Defence Institute „Prof. Tsvetan Lazarov“

2.3. PLATFORM FOR EVALUATION AND ANALYSIS OF CONTROL PLANE PERFORMANCE IN SOFTWARE-DEFINED NETWORKS

Diyana Kyuchukova, Georgi Hristov – University of Ruse “Angel Kanchev”

2.4. PAYMENT OF PENSIONS BY ”BULGARIAN POSTS” PLC - MONOPOLY OR OBLIGATION ?

Zdravko Mihaylov

Headquarters of ”Bulgarian Posts” PLC

17.20 – 17.30

Break

17.30 – 18.30

Plenary Session 3, hall 3

“Round Table” Discussion

5G – MOBILE COMMUNICATION OF NEXT GENERATION

IoT – INTERNET OF THINGS,

THE “PRAVETS” TRADEMARK - RESURRECTION

Chairmen: Assoc. Prof. Kamen Rangelov, PhD, Prof. Ivan Kurtev, PhD

17.00 – 20.00

Cocktail – Hall 2

**Friday,
28.10.2016**

NATIONAL SCIENCE AND TECHNICAL CENTRE

08.30 – 09.30

Section Session 3, hall 3

INTERNET OF THINGS AND INTERNET OF PEOPLE

Chairman: Assoc. Prof. Seferin Mirtchev, PhD

3.1. CHALLENGES FACED BY THE AUTONOMOUS MANAGEMENT IN FUTURE INTERNET

Anastas Nikolov – Technical University Of Sofia

3.2. TELECOMMUNICATION SYSTEM FOR GREEN ECONOMY – A SURVEY

Zdravka Tchobanova, Galia Marinova – Technical University-Sofia

09.00 – 09.30

Section Session 4, hall 3

**WIRELESS COMMUNICATIONS. SHARING OF RADIO SPECTRUM.
DIGITAL SWITCHOVER**

Chairman: Prof. Luben Tonev, PhD

4.1. MEASUREMENT OF THE REFERENCE SIGNAL IN 4G LTE NETWORK IN SOFIA
Philip Atanasov, Zhivko Kissovski, Sofia University

4.2. COMPARATIVE ANALYSIS OF TECHNOLOGIES TO CONSTRUCT VEHICLES
AD-HOC NETWORKS

Tsvetan Marinov Marinov – Technical University of Sofia

09.45 – 10.45

Section Session 5, hall 3

**TELECOMMUNICATION NETWORKS AND TELETRAFFIC – POLITICS.
PLANNING AND MANAGEMENT**

Chairman: Assoc. Prof. Dimitar Arnaudov, PhD

5.1. BEYOND ALGEBRAIC CONNECTIVITY OF GRAPHS - EVALUATION OF
TOPOLOGY, BASED ON SPECTRAL CLUSTERING

Mircho Jordanov Mirchev – Technical University of Sofia

5.2. QUALITY OF SERVICE EVALUATION IN IP NETWORKS WITH PEAKED ARRIVAL
AND DEPARTURE PROCESSES

Seferin T. Mirtchev – Technical University of Sofia

5.3. TRAFFIC PERFORMANCE OF THE PRIORITY SERVICES OF THE IP TRAFFIC

Dimitar Atamian, Seferin Mirtchev, Rossitza Goleva – Technical University of Sofia

5.4. CLOUD SERVICES- TOOLS FOR MODELING AND SIMULATION

Ivan Ivanov Nedyalkov, Georgi Petrov Georgiev – University of Telecommunication and Post

11.45 – 11.45

Section Session 6, hall 3

COMMUNICATION CIRCUITS, SIGNALS AND SYSTEMS

Chairman: Prof. Boris Yovchev, PhD

6.1. APPLICATION OF NEW MATHEMATICAL FUNCTIONS FOR DIGITAL LINEAR-
PHASE FILTERS DESIGN

Peter Stoyanov Apostolov, Alexey Kostadinov Stefanov – South-West University, „Neofit
Rilski“, Ivan Michailov

6.2. DISPLACEMENT CURRENT AND AMPERE'S LAW

Ivan Stefanov Bozev, Radoslav Borislavov Borisov – Technical University of Sofia

6.3. MODULE FOR CONTACTLESS MEASURING OF SURFACE TEMPERATURE OF
DISTRIBUTED OBJECTS IN TERMAL ZONE

Kalin Lachezarov Dimitrov, Stanyo Veselinov Kolev – Technical University of Sofia

12.00 – 12.30

Section Session 7, hall 3

EDUCATION IN THE FIELD OF TELECOMMUNICATION

Chairman: Assoc. Prof. Krastu Mirski, PhD

7.1. APPLICATION OF GNURADIO IN DIGITAL MODULATIONS CURRICULUM

Georgi Petrov – NBU

7.2. IMPLEMENTATION OF ICT IN TEACHING OF POWER SUPPLY DEVICES

Nikolay Hinov, Tsveti Hranov, Dimitar Arnaudov Technical University – Sofia

12.45

CLOSING OF THE CONFERENCE, hall 3.

Information

for the participants and guests of Telecom 2016

Until 27 October 2016 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 50, Students - Euro 25. The fee should be preferably paid before October 14, 2013 through a bank transfer on the account of:

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CEEC, TELECOM 2016, 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 55).

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.

