National Research University Higher School of Economics

Russian Section of the Institute of Electrical and Electronics Engineers (IEEE)

Moscow A.S. Popov's Scientific Technical Society

The Tomsk Chapter & Student Branch of the Siberia Section of the IEEE

Moscow Workshop on Electronic and Networking Technologies

March 14–16, 2018

Moscow, Russia

mwent.hse.ru

Program

Moscow Workshop on Electronic and Networking Technologies

March 14–16, 2018
National Research University "Higher School of Economics"
Moscow, 34 Tallinskaya Str.

Time	March 14, Wednesday			
9:00 – 10:00	Registration of participants, lobby 1st floor			
10:00 – 10:20	PLENARY OPEN SESSION			
10:30 – 10:50 *Keynote 1*	*Лохов А.Л., директор ЗАО «Мегратек»* Обзор решений компании Mentor Graphics в области проектирования электроники			
11:00 – 11:20 *Keynote 2*	*Ананьин А.А., руководитель отдела по работе с учебными заведениями National Instruments* Партнерство с National Instruments в области научных исследований и разработок на примере проекта связи нового поколения 5G			
11:30 – 11:50 *Keynote 3*	*Шалумов А.С., Генеральный директор ООО "НИИ "АСОНИКА".* Применение автоматизированной системы АСОНИКА для создания высоконадёжной электроники			
12:00 – 12:20 *Keynote 4*	*Колковский Ю.В., зам. директора АО «НПП Пульсар» по научной работе.* Новые технологии для дистанционного зондирования Земли			
12:30 – 13:30	Lunch			
13:30 – 15:30	**Communications I**	**Networks I**	**Electron Devices I**	**National Instruments I**
15:30 – 16:00	Coffee Break			
16:00 – 17:30	**Communications I**	**IEEE Promo**	**Electron Devices I**	**National Instruments I**
17:30 – 20:30	Get Together Party			
March 15, Thursday				
10:00 – 10:20 *Keynote 5*	*Русаков С.Г., главный научн. сотр. ИППМ РАН, член-корр. РАН* Тенденции разработки методов схемотехнического моделирования радиотехнических интегральных схем с нанометровыми проектными нормами			
10:30 – 10:50 *Keynote 6*	*Петросянц К.О., проф. департ. электронной инженерии МИЭМ НИУ ВШЭ* Проблемы моделирования компонентов БИС космического назначения			
11:00 – 11:20 *Keynote 7*	*V. S. Melikyan., professor, director of Synopsys Armenia Educational Department, corresponding Member of RA NAS* IC Design Challenges and Solutions			
11:30 – 11:50 *Keynote 8*	*Цой В., руководитель департамента компании "Huawei-Technologies", Sweden.*			
12:00 – 12:30	Coffee Break			
12:30 – 13:30	**Communications II**	**Networks I**	**Electron Devices II**	**National Instruments II**
13:30 – 14:30	Lunch			
14:30 – 16:00	**Communications II**	**Control**	**Electron Devices III**	**National Instruments II**
16:00 – 16:30	Coffee Break			
16:30 – 18:00	**Communications II**	**Networks II**	**Electron Devices IV**	**National Instruments II**
March 16, Friday				
Social Program				

Organized by

- National Research University Higher School of Economics;
- Russian Section of the Institute of Electrical and Electronics Engineers (IEEE);
- Moscow A.S. Popov's Scientific Technical Society;
- National Instruments Rus R&D;
- The IEEE Tomsk Chapter & Student Branch.

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- National Instruments Rus R&D.

Technical Sponsors

- The IEEE Electron Devices Society (ED-S);
- Tomsk IEEE Chapter & Student Branch.

Research supervisor

Gulyaev Yu.V., Institute of Radio-engineering and Electronics RAS, Russia

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General Information

International Moscow IEEE-workshop on Electronic and Networking Technologies **MWENT-2018** devoted to the issues of electronics development and its integration into the modern network engineering technologies and also modern achievements in the field of creation of control and communication systems. The **Aim of MWENT** is to provide an international forum for discussion of recent scientific advances in the electronic industry.

Address of Organizing Committee and Correspondence

Contact information:
123458, Moscow, 34 Tallinskaya Str.
E-mail: mwent@hse.ru
General questions:
Ilya Ivanov
Tel.: +7 (495) 7729590*15166, +7(926) 3830740, e-mail: mwent@hse.ru
Papers and special sessions:
Oleg Stukach
Tel.: +7 (3822)701777*2754, e-mail: tomsk@ieee.org

Topics

1. Fundamental problems of radio electronics.
2. Technologies of electronic instrument engineering.
3. Network and telecommunication.

Registration fee

4500 RUB – for IEEE members;
5500 RUB – for students and postgraduate students;
9500 RUB – for all other participants.
Registration fee includes publication in the conference proceedings, coffee-breaks and high dinner.

Venue

Moscow Institute of Electronics and Mathematics of National Research University Higher School of Economics.

Participation

To take part at the conference, it is necessary to send to Organizing Committee the full papers and to pay the registration fee. All participants of the conference should register at *mwent.hse.ru*

Proceedings

All accepted papers will be published in conference Proceedings, registered in IEEE Xplore and indexed in scientific databases. The participants will be provided with the electronic version of the proceedings. Also the conference papers in English will be published on the Web http://ieeexplore.ieee.org/.

Registration

Advance registration is performed through sending of full paper or paying of the registration fee. Final registration of participants will be held on sessions.

Conference Language

The working language is English. No simultaneous translation will be provided. All materials concerning the conference should be written in English. According with the RFBR recommendations some events will be fulfills on Russian (see schedule) as one of the working language.

Electronic Copyright Form (eCF)

Each author whose paper has been accpeted for publication will recieve email from IEEE regarding eCF (from copyrights@ieee.org with subject "Copyright Pending Notice for Article: ...title of your paper..."). This email will provide the authors with a link to the online eCF wizard, as well as a unique login name and password to access their own copyright forms. When an author completes the online copyright transfer process and submits the form, he/she will receive an automated confirmation email letting him/her know that the transfer has been completed successfully.

Please use the link in the email invitation sent earlier in order to access your eCF, and complete the entire form. If you have any difficulty accessing the eCF site, please contact the IPR Office at copyrights@ieee.org

Technical Program

The technical program cover all aspects of electronic and networking: theory, fundamental, and applied studies. It will include plenary session and thematic sessions composed of oral presentations. Contributed papers will be 10 minutes in length, with 5 minutes for discussion. Invited papers will be 25 minutes, with 5 minutes for discussion. Multimedia projector will be available.

Guidelines for Oral Presentations

Please note that the overall time available for your presentation is limited to 10 minutes allowed for the actual presentation and 5 minutes for discussion. You should plan your presentation carefully. You should select your vocabulary to address as wide an audience as possible and avoid unfamiliar abbreviations or expressions. Your oral presentation should be performed and organized to answer the following questions:

Why was the project undertaken?
What was done?
What was learned?
What does it mean?

Remember, the three rules for an effective presentation are:

- Tell them what you are going to say (spend a few moments introducing your topic and what you intend to speak about).
- Tell them (deliver your talk, including the methods, results and conclusions)
- Tell them what you said (summarize the most important points of your lecture).

Please remember that the responsibility of having your paper ready for Presentation at the scheduled time is primarily in your hands as the presenter. Check the readability, completeness and order of your slides before your presentation. Arrive well in advance of the session, and acquaint yourself with the operation of the podium and location of the equipment. Conference staff will be present to assist you. There are no scheduled breaks in the agenda so it is mandatory that the presentations be loaded before the beginning of each session.

Be careful to speak in accordance with the sequence of your slides. Avoid making major modifications to your transparencies during your presentation. Do not use more than 1 slide per minute. Please stay within the time limit allocated for your presentation.

Technical equipment provided in the Conference room are:

- Multimedia video projector;
- Projection screen;
- Standard multimedia PC with CD-ROM drive.

The operating system for session computers is Microsoft Windows XP. The available software is Microsoft Office XP (or newer) that includes Word, Excel, PowerPoint, Adobe Acrobat Reader, and Windows Media Player. Therefore, all presentations must be compatible with these packages. Slide and overhead projectors will not be available!

Schedule and Scientific Program

Выставка National Instruments
14-15 марта

Познакомьтесь ближе с оборудованием и программным обеспечением National Instruments для разработки и тестирования беспроводных систем связи и других радиотехнических систем. Получите консультацию специалистов National Instruments на месте.

Академическая программа NI для профильных вузов
14 марта, Пленарный доклад, 11:00 - 11:20
Технологическое взаимодействие с университетами. Создание учебно-исследовательских центров. Аппаратные платформы NI для реализации научно-экспериментального образца.

National Instruments I, II

Современные технологии для дизайна и разработки радиотехнических систем
15 марта, 13:30
Узнайте о новейших разработках в области систем связи от эксперта National Instuments. Доклад посвящен обзору текущего состояния и успехов в области разработки радиотехнических систем, исследования протоколов связи, включая спецификаций систем 5G, а также роли National Instruments в становлении связи нового поколения.

Технический семинар: Прототипирование программно-определяемых радиосистем с LabVIEW FPGA
16 марта, 12:30
Технический семинар посвящен практическим аспектам реализации идеологии программно-определяемых радиосистем (Software-Defined Radio) для прототипирования систем связи и других радиотехнических систем с помощью платформы NI USRP, программированию систем SDR в LabVIEW, включая преобразование алгоритмов для исполнения на ПЛИС и разработку кода для ПЛИС.

IEEE Promo
Special Session and Workshop on the IEEE Advantages for Industry and Academia
14 марта, 16:00
Welcome to Workshop on the IEEE Advantages for Industry and Academia! This presentation begins with a brief introduction to the IEEE, showing an overview of it benefits and features for your scientific life. After presentation we answer questions concern networking in professional societies, IEEE operation, future of professional activity. Language of talks is Russian.

Regular papers

Communications I

svk099	Full-Duplex Power Line Communication System. Analog Cancellation, System Concept and Implementation Problems	E.V. Rogozhnikov, E.M. Dmitriyev, A.K. Movchan
svk116	The simulation of error-correcting communication channel for video transmission	Igor Y. Lvovich, Andrey P. Preobrazhenskiy, Oleg N. Choporov
svk132	Estimation of the Transmission Coefficients of a MIMO System Radio Channel Indoors	Panychev A.I., Vaganova A.A., Kisel N.N.
svk152	The Communications Channels Models in Wireless Sensor Networks, based on the Structural-Energetic Interaction between Signals and Interferences	N.V. Listova, V.V. Fedorenko, I.V. Samoylenko, I.V.Emelyanenko, V.V. Samoylenko
svk233	Development analog and digital part of device for communication across earth using electromagnetic and	V. S. Potylitsyn, D. S. Kudinov, O. A Maikov, R. G. Shaydurov, V. V. Romanov
svk253	Analisys of Frequency-Correlation Properties of Multipath Channel for Encyprion Key Generation Using Samples of Differential Phase	A.I. Sulimov, O.N. Sherstyukov, A.V. Karpov
svk282	An Approach forOptimal MaintenancePlanning of Radio Communication Devices Considering Reliability and Operational Costs	A. Lyubchenko, J. Pacheco, E. Kopytov, S. Lutchenko, V. Maystrenko, S. Bartosh
svk283	Verification and Analysis of Stationary Properties of Radio Equipment Maintenance Planning Model	A. Lyubchenko, J. Pacheco, E. Kopytov, S. Lutchenko, V. Maystrenko, S. Bartosh
svk286	The Development of the Data Transmission Method and the Data Transmission Device for the Industrial Control Systems of the Energy Carrier Parameters	Ivan S. Karavaev, Vasily I. Selivantsev, Yury I. Shtern, Maxim Y. Shtern
svk412	Multi-Constraint QoS Disjoint Multipath Routing in SDN	Manan Doshi, Aayush Kamdar
svk547	Model of a self-similar traffic generator and evaluation of buffer storage for classical and fractal queuing systems	T. Tatarnikova, O. Kutuzov
sva006	The influence of directivity factor of	Yu.B. Nechaev, I.W.

	cylindrical antenna array on DOA estimation in azimuth plane	Peshkov
sva027	Planar antenna array for 3G and 4G wireless communication	Denis A. Letavin; Alexei L. Konovalov, Sergey G. Sychugov
sva028	Antenna for mobile communication of the 5th generation	Denis A. Letavin, Alexei L. Konovalov
sva052	Volumetric-modular technology for building high-frequency diagramming devices	N.V. Dudarev, S.N. Darovskih
sva129	Investigation of slot reflect array antennas	Svyatoslav V.Ballandovich, Liubov M. Liubina, Mikhail I. Sugak
sva162	An Analysis of the Multiband Non-planar Koch-type Fractal Dipole with Steerable Geometry	Aleksey S. Gvozdarev, Tatiana K. Artemova
sva178	Экспериментальное исследование эффекта "сверхразрешения" приемных цифровых антенных решеток при применении алгоритма полигармонической экстраполяции	А.В. Пучков, П.Н. Вьюгин, А.П. Евсеев, Р.Г. Нужный
sva214	Numerical electromagnetic simulation of parabolic antenna	Artemiy Drize, Konstantin Klimov
sva228	Algorithm of radio direction finding in the HF range in polarization fading conditions with collocated antennas	Dmitry V. Luchin, Alexey P. Trofimov, Dmitry V. Filippov, Vyacheslav V. Yudin
sva236	The usage of impedance-matched material for increasing antenna emitters wavelength	Victor Perfilyev, Konstantin Klimov, Andrey Godin
sva525	Synthesis and analysis of signal parameters estimation algorithm with space-time processing in real numbers operating by antenna array observations	Alexander I. Perov, Sergey P. Ippolitov
sva544	Impact of Antenna Mutual Coupling on WiFi Positioning and Angle of Arrival Estimation	Ilya V. Korogodin, Vladimir V. Dneprov
	Communications II	
ssp043	Information characteristics signals and noise with non-Gaussian	V. M. Artyushenko, V. I. Volovach

	distribution	
ssp046	The effect of multiplicative noise on probability density function of signal and additive noise	V. M. Artyushenko, V. I. Volovach
ssp166	Averaged Absolute Spectral Correlation Density Estimator	Timofey Shevgunov, Evgeniy Efimov, Dmitriy Zhukov
ssp220	Transformation of the phase structure of nanosecond radio signals while stroboscopic processing	V.D. Zakharchenko, E. V. Verstakov
ssp221	The Method of Reducing the Noise Influence and Time-series Samples Fluctuations on the Accuracy of Information Representation	Y.A. Kropotov, A.Y. Proskuryakov, A.A. Belov
ssp281	Computational Algorithms for Fractional-N PLL Noise Simulation in the Phase Domain	M.M. Gourary, S.G. Rusakov, S.L. Ulyanov, M.M. Zharov, L.P. Ionov, I.I. Muhin
ssp514	Method of detection of a source of contact noises at wireless communication in motion	Nikolay N. Grachev, Sergey N. Safonov
ssp516	Algorithms to form and process signals for multilevel defense of transmitted data based on the principles of cognitive and software-defined radio	Sergey N. Kirillov, Alexander A. Lisnichuk, Ivan V. Lukashin, Pavel S. Pokrovskij
ssp540	Macromodeling Approaches for Simulation of Coupled Oscillator Networks	M.M. Gourary, S.G. Rusakov, S.L. Ulyanov, M.M. Zharov
dig059	Modeling of digital AGC with multi-signal impact and adaptation of the reference level	Aleksandr Prasolov
dig135	Protection of Spacecraft Electronics againstESD Effects Using Nanoconductive Insulators	Evgeniya Tyryshkina
dig137	Method of Op-Amp Speeding Increase, Basing on Introduction of the Nonlinear Differentiating Circuit	Nikolay N. Prokopenko, Anatoliy R. Gaiduk, Anna V. Bugakova
dig138	Transients in the Operational Amplifier with a Square-Law Transfer Characteristic of the Compensating Capacitor Driver	Nikolay N.Prokopenko, Anatoly R. Gayduk, Anna V. Bugakova
dig142	Simulation of the Instrumentation Amplifier Implemented on a Printed Circuit Board of Nanoconductive	F.S. Polishchuk

	Dielectric	
dig271	Sensitivity Analysisof Digital Filters Using the Continued Fraction Expansion	V. Lesnikov, T. Naumovich, A. Chastikov
dig302	Realisation of Integrating Analog-Digital Converter with Intermediate Time-Impulse Modulation Using NI Multisim	Vasily Nikolaevich Ashanin, Aleksey Aleksandrovich Korotkov
dig503	CPN-based Model of Parallel Matrix Switchboard	D. Kutuzov, A. Osovsky, D. Starov
svc053	The effectiveness of synchronization system based on the combined sequence	V. Artyushenko, V. Volovach
svc130	The Signal Code Structure Selection in the Communication Channels in the Wireless Sensor Networks	V.V. Fedorenko, D.V. Aldushchenko, N.V. Listova, I.V. Samoylenko, V.V. Samoylenko
svc176	The Application of Modulo q Check Codes to Increase the Efficiency of Non-Binary Multithreshold Decoders Over q-ary Symmetric Channel	Zolotarev V.V., Ovechkin G.V., Ovechkin P.V., Pilkin A.N.
svc200	Method for estimating the mutual time delays of satellite communication system signals based on CDMA technology for the passive direction finding problem	Roman A. Ershov, Oleg A. Morozov, Ilya V. Grin', and Vladimir R. Fidelman
svc217	On the question of the authentication tag length based on Reed-Solomon codes	Zhilyaev A. E., Gurova E.B
svc517	Algorithms to evaluate the quality of the received speech and psycho-emotional state of the speaker in the presence of acoustic interference in telecommunication systems	Sergey Kirillov, Vladimir Dmitriev, Dmitriy Lukyanov, Dmitriy Semin
	Networks I	
ntp044	Исследование двух вариантов использования протокола MQTT в IoT-сетях	С.Г. Майхуб
ntp139	The Traffic Safety Management System in Urban Conditions Based on the C4.5 Algorithm	Alla G. Kravets, Dmitry A. Skorobogatchenko, Natalia A. Salnikova, Nazim Y. Orudjevand, Olga V. Poplavskaya

ntp232	Development and Research of the PreFirewall Network Application for Floodlight SDN Controller	Sergey V. Morzhov, Mikhail A. Nikitinskiy
ntp259	Big Telemetry Data Processing in the Scope of Modern Internet of Things	Anton R.Fakhrazeev, Alexey Yu. Rolich, Leonid S. Voskov
ntp274	Survey of Data ExchangeFormats forHeterogeneous LPWAN-SatelliteIoT Networks	Ivan I. Lysogor, Leonid S. Voskov, Sergey G. Efremov
ntp276	Multi-agent Modeling of User Behavior for Social Media Analysis	Anton Ivaschenko, Anastasiya Khorina, Vladislav Isaiko, Daniil Krupin, Viktor Bolotsky, Pavel Sitnikov
ntp295	Recovering of Useful Signal in Chaotic Carrier Data Transmission System with State Observer	Alexey S. Mushenko, Julia N. Dzuba, Alexander D. Zolkin
ntp303	An integration algorithm for simulating stiff electrical networks	Yury V. Shornikov, Evgeny A. Popov
ntp411	IOT Based Efficient D2D Communication	Muhammad Abrar, Rooha Masroor, Ifra Masroor, Asif Hussain
isk169	Investigation and Development of the Intelligent Voice Assistant for the Internet of Things Using Machine Learning	Polyakov E.V., Mazhanov M.S., Rolich A.Y., Voskov L.S., Kachalova M.V., Polyakov S.V.
isk247	Multicriteria Selection of the Optimal Variant of a Complex System Based on the Interval Analysis of Fuzzy Input Data	Alexey Grishko, Evgeniya Danilova, Ilya Rybakov, Eduard Lapshin, Nikolay Goryachev
isk256	Подход к раннему обнаружению информационных атак в корпоративных распределенных информационно-вычислительных системах	М.Ю. Монахов, Ю.М. Монахов, А.В. Тельный
isk545	Debugging Test Set Generation for Digital Control System Functions	Alexander Ivannikov, Boris Pozdneev, Irina Romanova, Sergej Tumkovskiy
	Networks II	
gis030	Increasing The Reliability Of Data	V.N. Tyapkin, V.N.

	Transmission And Immunity By Correcting The Frequency Characteristics Of Receiving Channels In On-Board Retransmission Systems Of Satellite Communication Systems	Ratushnyak, D.D. Dmitriev, A.M. Mandranov
gis037	The Organization And Short-Range Navigation Radio Systems Structure Based On Pseudosatellites	E.N. Garin, Y.L. Fateev, A.B. Gladyshev, V. N. Ratushnyak
gis042	Design of Onboard Cable Network of the Spacecraft for the Formation ofGeoinformation Systems	A.V. Vostrikov, E.N. Prokofeva, S.N. Polesskiy
gis096	Алгоритм одноточечной радиопеленгации в диапазоне ВЧ в условиях поляризационных замираний	Д.В. Лучин, А.П. Трофимов, Д.В. Филиппов, В.В. Юдин
gis292	Effective Integration Algorithm for Pedestrian Dead Reckoning	Ilya A. Nagin, Yury M. Inchagov
gis301	Integrated UWB/IMU system for high rate indoor navigation with cm-level accuracy	Roman S. Kulikov
ntk102	Modeling the Configuration of Data Processing Channels in a Dangerous Situation	Klevtsov S.
ntk110	Topology, Protocols And Databases In Bluetooth 4.0 Sensor Networks	Nikita A. Andriyanov, Vitalii E. Dement'ev
ntk151	On an Optimal Solution for Multi-Constrained Routing Problem in the Over-Constrained Case	Evgeny V. Shcherba, George A. Litvinov
ntk154	Mathematical Model for Administration of Web-conference Distributed Systems	A. Alexander G. Ivashko, B. Marina S. Vorobeva, C. Anatoliy Yu. Oshepkov, D. Artem M. Vorobev
ntk264	Distributions of Degrees in Growing Graphs with Loss of Arcs	Vladimir N. Zadorozhnyi, Evgeniy B. Yudin, Maria N. Yudina
ntk319	Fuzzy system for controlling queue size of packets in telecommunication nodes	Tran Quoc Toan, A.A. Sorokin, Vo Thi Huyen Trang
ntk320	Using fuzzy classification to support decisionmaking during the modernization of the network infrastructure elements	Sorokin A. A., Oleynikov A. A., Goryunov A. A.
ntk505	Network Level DLP Technologies	S. Kharitonov, A.

	Electron Devices I	
gad058	Development Of An Electric-Pulse Unit For Cleaning Coal Dust From The Electrostatic Filters Surfaces	Aleksandr S. Tatevosyan, Andrey A. Tatevosyan, Natalya N. Zaharova
gad060	Use of Network Technologies for the Improvement of the Non-invasive Cardio Diagnostics System	Oleg N. Bodin, Mikhail N. Kramm, Evgeni A. Lomtev, Kasymbek A. Ozhikenov, Vitaly G. Polosin, Fagim K. Rakhmatullov
gad084	New Topology of an Unipolar Active Magnetic Bearing for High-speed Electrical Motorof Aircraft Air Conditioning System	Flur Ismagilov, Vyacheslav Vavilov, Ildus Sayakhov
gad107	Perimental Study Of The Ferromagnetic Groove Carrying Conductor Surface	Aleksandr S. Tatevosyan, Andrey A. Tatevosyan, Natalya N. Zaharova
gad195	Wide-band Hybrid Frequency Synthesizer with Improved Noise Performance	V.V. Romashov, L.V. Romashova, K.K. Khramov, K.A. Yakimenko, A.N. Doktorov
gad250	A Technique For Conducting Experimental And Theoretical Dynamic Research In Design Of Instrument Devices	Artamonov D.V., Litvinov A.N., Yurkov N.K., Kochegarov I.I., Lysenko A.V.
gad265	A harmonic signal generator with a continuous phase	A.V. Sokolovskii, D.D. Dmitriev, I.N. Kartsan, A.E. Goncharov
gad294	Automated test development system for digital devices	Valery M. Grishkin, Dmitry A. Ovsyannikov, Yevgeny V. Yelaev, Nikolay S. Maschinskiy
gad501	The complex of automated control of secondary power supplies parameters	Ivanov I.A, Korolev P.S., Sedov K.D.
gad502	Model for Calculating the Reliability of a Wireless Sensor Telecommunication System for Monitoring the Gas Transmission	Ivanov O., Avdeuk O., Bushmeleva K., Ivanov I., Uvaysov S.

	Network State	
gad543	The Theory of Virtual Modeling of Physical Processes in Onboard Electronic Means	Yury N. Kofanov
emc083	Analysis of Signal Integrity in a Microstrip Transmission Line on a Substrate of the Nanoconducting Dielectric	A.D. Zhadov
emc179	Use of Evolution Strategy when Revealing the Worst Case Effects of Ultrashort Pulse Propagation in PCB Bus of Spacecraft Autonomous Navigation System	Ruslan R. Gazizov, Rustam R. Gazizov, Talgat R. Gazizov
emc203	Simulation of the Time Response in Multiconductor Microstrip Modal Filters with Separate Accounting for Losses in Conductors and Dielectrics	Anton O. Belousov, Talgat R. Gazizov
emc211	Optimization of Protective Varnish Tickness for Crosstalk Minimization in Multiconductor Bus of a Space-born PCB	Roman S. Surovtsev, Talgat R. Gazizov
emc355	Simulation of the Propagation of Elastic Waves through Multilayer Structures	O.A Kozhemyak, A.I. Soldatov, A.A. Soldatov, P.V. Sorokin, M.A. Kostina, N.G. Narimanova
emc518	Influence of the Cross-Section Form of the Power Bus Bar on its Parameters	S. Ternov, A.V. Demakov, M.E. Komnatnov
	Electron Devices II	
edm040	TCAD Simulation of the 65-nm CMOS Logical Elements of the Decoders with Single-Event Transients Compensation	Yuri V. Katunin, Vladimir Ya. Stenin
edm097	Design and Simulation of the CMOS RS Logical Elements with Spacing between Transistor Groups for Minimization of Single-Event Upsets	Yuri V. Katunin, Vladimir Ya. Stenin
edm098	Non-contact Method for Assessing the Quality of Assembly of Electronic Devices Based on Registration and Analysis of	Nikolay N. Grachev, Sergey N. Safonov

	Contact Radio Interference	
edm193	Fast and Accurate Resource-aware functional ECO Patch Generation Tool	Alexander Stempkovskiy, Dmitry Telpukhov, Roman Soloviev
edm199	Fully Integrated Switched-Capacitor Voltage Converter with Regulated Output	Valery E. Shunkov, Oleg N. Kus, Vitaly Y. Prokopyev, Vladimir A. Butuzov, Yury I. Bocharov
edm254	Comparison of the Matching Circuits for the 65-nm CMOS Translation Lookaside Buffers	Artem V. Antonyuk, Pavel V. Stepanov
edm260	Thermodynamic Analysis Of Nonvolatile Memory Cells Based On Phase Transitions	Anatoly Popov, Sergey Salnikov, Yuriy Anufriev, Elena Zenova, Denis Zezin, Alexander Makarov
edm304	Development of automated measurement systems for testing integrated circuits of switching converters	Alexei N. Shkolin, Alexandr Y. Drakin, Vitaliy F. Zotin
edm311	Application of the Layout-Aware Single Event Simulations to a Design of 65 nm Memory Units	Anton O. Balbekov
edm323	Development of Compact SPICE-models of IC Resistive Interconnects with Different Configurations	Konstantin O. Petrosyants, Nikita I. Ryabov, Boris G. Lvov, Ekaterina I. Batarueva
edf079	Methods and algorithms of design on domestic FPGAs with given restrictions on routing resources	V.M. Khvatov, T.V. Garbulina
edf118	The device of secure data transmission based on Magma crypto algorithm with implementation on FPGA	Oleg V. Drozd, Denis V. Kapulin
edf131	Real-Time Sorting and Lossless Compression of Data on FPGA	Valery A. Kokovin, Saygid U. Uvaysov, Svetlana S. Uvaysova
edf164	Synchronizing Device For Navigation Equipment	Galina V. Nikonova, Aleksandr V. Nikonov
	Electron Devices III	

edd134	Modeling of Dependence of Dielectric Parameters of Double-layer Ferroelectric Structure on Temperature and Layers Thickness	Ekaterina A. Pecherskaya, Timur O. Zinchenko, Pavel E. Golubkov, Anatoliy V. Pecherskiy, Andrey V. Fimin, Kirill O. Nikolaev
edd222	Research of output characteristics of the heterodyne executed on the printed circuit board with the increased resistance to electrostatic discharges	D.Abrameshin, S.Tumkovskiy, E.Pozhidaev
edd229	Model Of Radiation Electrization Of Low-Pressurepolyethylene Films With Controlled Conductivity	V.O. Korkinets, A.E. Abrameshin, E.D. Pozhidaev
edd269	The increased resistance of the spacecraft electronic elements containing dielectrics to the emergence of ESD	Margarita Afanasyeva
edr064	Computer simulation of electrical characteristics of a nanocontact "Au - 1.8-nonodiyne - Au"	Daulet Sergeyev, Kuanyshbek Shunkeyev
edr065	Simulation of electrical characteristics of a nanocontact "Au - Pentacene - Au"	Daulet Sergeyev, Lyudmila Myasnikova, Nurgul Zhanturina, Alexandra Barmina
edr075	Radiation-Induced Conductivity of Molecularly Doped Polycarbonate	D.A. Abrameshin
edr156	Cyclic Partitions In Nano-Electronics. Nano-Cluster Circular Systems	Valery G. Rau,Oleg R. Nikitin, Kirill A. Gorshkov, Hadi M. Saleh,Tamara F. Rau
edr314	Sensors Based on MIS Structures for Study of Ionization Radiations	Vladimir V. Andreev, Gennady G. Bondarenko, Dmitrii V. Andreev, DmitriyM. Akhmelkin
edr317	Monte Carlo Simulation of Nuclear Reaction Induced Soft Error Rate in Modern Commercial Circuits	Artur M. Galimov, Alexei V. Alexandrov, Regina M. Galimova, Gennady I. Zebrev
edr321	Simulation of Radiation-Induced Supply Leakage Currents in Modern Digital CMOS Thermometer DS18B20	Rustem G. Useinov, Oleg V. Meshurov, Maxim G. Drosdetsky, Gennady I. Zebrev

	Electron Devices IV	
edz191	Investigation of Thermal Mode of LED Luminaire when Parameters of LEDs are Varied	S. S. Kapitonov, A. V. Kapitonova, S. Yu. Grigorovich, S. A. Medvedev
edz198	The Technology of Processing Information and Recognizing Gas Mixtures Using a Multisensory System Based on the Use of Neural Networks	V.P. Kulagin, A.F. Kaperko,Y.M. Kuznetsov, N.M. Obolyaeva, G.M.Chulkova, A.N.Yurin, A.I.Ivanov, A.V.Shustrov
edz246	The Study of Five-level Inverters with the Various PWM	Oleg A. Lysenko, Ivan Yu. Marchinskiy
edz287	Automatized Setup for Researching of MIS Structures under High-field Tunnel Injection of Electrons at Stressand Measurement Conditions	Dmitrii V. Andreev, Gennady G. Bondarenko, Vladimir V. Andreev, Alexander A. Stolyarov
edz318	Measuring complex for registering photoelectric response of LED heterostructures under local photoexcitation	V. A. Sergeev, S. V. Vasin, O. A. Radaev, I. V. Frolov
edz500	Automation of Parameter Extraction Procedure for Si JFET SPICE Model in the -200:+110°C Temperature Range	Konstantin O. Petrosyants, Mamed R. Ismail-zade, Lev M. Sambursky, Oleg V. Dvornikov, Boris G. Lvov, Igor A. Kharitonov
edz528	Transimpedance operational amplifier for highspeed systems-on-a-chip	V. V. Yerokhin, K. V. Murasov, A. V. Kosykh, S. A. Zavyalov
edz380	SPICE-model of SiGe HBT Taking into Account Radiation Effects	Konstantin O. Petrosyants, Maxim V. Kozhukhov, Oleg V. Dvornikov, Eugene M. Savchenko, Alexey S. Budyakov
mwg081	Topological Features of the Active RC-Filter Schemes with the Extended Frequency Operating Range	Darya Yu. Denisenko, Yuriy Iv. Ivanov, Nikolay N. Prokopenko
mwg085	Optimization of Frequency	N.D. Malyutin, A.N.

	Dependence of Group Time Delay at the Transmitting Paths of the Radar by the Application of Equalizers	Gusev, M.E. Rovkin, V.N. Fedorov
mwg112	A 20 to 60 GHz Frequency Doubler MMIC Using a Quasi-Vertical GaAs Shottky Diodes	A. Drozdov
mwg149	A Definition of Basis-level of the Brillouin Frequency Shift in Optical Fibers of Various Types	Igor V. Bogachkov
mwg172	The Possibility of Increasing the Bandwidth of Fiber-Optic Communication Lines	Alexey A. Loktev, Konstantin A. Izotov, Daniil A. Loktev
mwg175	Ultra-Wideband Multifunctional Radiophoton Receiving Tract for Analogue Processing of Signals of the Microwave Band	An. V. Gamilovskaya, Yu. N. Volkhin, An. S. Andreev, Igor V. Bogachkov
mwg212	Solution of a multidimensional system of equations for differentiating probability densities with respect to Y to identify silver nanoparticles on fibers	Emelyanov V. M., Emelyanov V. V.

Control

reg086	Nonlinear Effects in Dynamics of Hysteresis Regulators with Double Synchronization	Yury Kolokolov, Anna Monovskaya
reg093	A method for realization of nonlinear state-dependent coefficients regulators based on microcontroller memory	Semion A. A.
reg145	Introducing of Linear Dependence Measure into Multipoint Projection Techniques for Model Order Reduction	M.M. Gourary, S.G. Rusakov, S.L. Ulyanov, M.M. Zharov
reg202	The Method of Automated Synthesis of Thermal Control Systems of Microelectronic Devices	Gromov I.Yu., Kozhevnikov A.M., Kofanov Yu.N.
reg310	Ways to reduce the negative impact of AC failure on consumers	Robert R. Sattarov, Aivaz Sh. Gareev
reg530	The Dynamic Accuracy Increasing for a Controlling System by Means of the Modified Algorithm of Numerical Optimization of the	Andrey Yu.Ivoilov, Vadim A. Zhmud, Hubert Roth

	Regulator	
reg531	Automatic Identification of Controlled Objects	Vadim A. Zhmud, Lubomir V. Dimitrov, Wolfram Hardt
bpl111	The problems of route and motion planning for an autonomuos flight vehicle in uncertain environment	Khachumov M.V., Khachumov V.M.
bpl121	Performance Evaluation Testbed for Emerging Relaying and Coding Algorithms in Flying Ad Hoc Networks	Irina A. Kaysina, Danil S. Vasiliev, Albert Abilov, Danil S. Meitis, Aleksey E. Kaysin
bpl405	Monitoring Application for Unmanned Aircraft Systems	Asif Iqbal, Faisal Saleem
bpl408	UAV Efficient PID and LQR Controllers Design based on its Stochastic State SpaceDynamics Model including Disturbances	I. N. Ibrahim, M.A.A. Akkad, I. V. Abramov
bpl529	The tilt angle estimation in the inverted pendulum stabilization task	Andrey Yu.Ivoilov, Vadim A. Zhmud, Vitaly G. Trubin, Jr.

Conference venue

All MWENT Seminar sessions will be held in the building of HSE Moscow Institute of Electronics and Mathematics (MIEM HSE) at:

Moscow, 34 Tallinskaya Str

How to get there?

Metro station “Strogino”. Last car from the centre. After you pass the glass doors, please turn left and go along the pedestrian subway, than turn right and go upstairs. Please go straight along the Stroginsky avenue to the corner of Tallinskaya street. Please cross the street and you will be at the entrance of university