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«2026 INTELLIGENT TECHNOLOGIES AND ELECTRONIC DEVICES IN VEHICLE AND ROAD TRANSPORT COMPLEX» (TIRVED-2026)

(IEEE Conference # 72272)

11-13 November 2026

CONFERENCE PROGRAM

Moscow
2026

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CONFERENCE CHAPTERS*

Chapter 1. Advanced digital intelligent technologies, robotic and big data systems, machine learning and artificial intelligence
(Передовые цифровые интеллектуальные технологии, роботизированные системы и системы больших данных, машинное обучение и искусственный интеллект)

Chapter 2. Intelligent transport systems and monitoring the state of road network objects
(Интеллектуальные транспортные системы и мониторинг состояния объектов дорожной сети)

Chapter 3. Components and systems of power plants for advanced vehicles
(Компоненты и системы энергетических установок перспективных транспортных средств)

Chapter 4. Advanced technologies and strategies for transportation systems
(Передовые технологии и стратегии для транспортных систем)

Chapter 5. Technologies for management and data exchange in ITS and autonomous vehicle traffic
(Технологии управления и обмена данными в ИТС и беспилотном движении транспортных средств)

Chapter 6. Electronic and computer technologies, modeling in roads and bridges design and construction
(Электронные и компьютерные технологии, моделирование при проектировании и строительстве дорог и мостов)

Chapter 7. Electrical and electronic engineering pedagogy
(Инженерная педагогика в области электроники и электротехники)

Chapter 8. Mathematical modeling of physical processes. Optical technologies and instrumentation
(Математическое моделирование физических процессов. Оптические технологии и приборостроение)

* The reports in the program inside the sections are listed in alphabetical order by the name of the first author. By agreement with the chairman of the section, the order of reports may be changed
(*Доклады в программе внутри секций перечислены в алфавитном порядке по фамилии первого автора. По согласованию с председателем секции порядок следования докладов может быть изменен*).

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Novikov I.A., *Doctor of Technical Sciences, Associate Professor, Director of the Transport and Technological Institute of BSTU named after V.G. Shukhov*

CONFERENCE SCHEDULE

11 November 2026

Lecture hall MADI (аудитория) 345
10-00 – 15-00
Online connection is possible

Chapter 1. Advanced digital intelligent technologies, robotic and big data systems, machine learning and artificial intelligence

Section Chairman: M.V. Yashina, *Doctor of Technical Sciences, Cand. physical-mat. Sciences, professor, head. Department of "Engineering and Mathematics of Applied Artificial Intelligence Systems" MADI, Member, IEEE*

Lecture hall MADI (аудитория) 132
13-30 – 18-00
Online connection is possible

Chapter 2. Intelligent transport systems and monitoring the state of road network objects

Section Chairman: Yu.E. Vasiliev, *Doctor of Technical Sciences, professor, Associate Professor, head. Department "Road Construction Materials and Chemical Technologies" MADI*

Lecture hall MADI (аудитория) 415
10-00 – 12-30
Online connection is possible

Chapter 6. Electronic and computer technologies, modeling in roads and bridges design and construction

Section Chairmans: A.V. Kostsov, *Doctor of Technical Sciences, Associate Professor, Head. of the Department "Road Surveying and Design" MADI*
P.I. Pospelov, *Doctor of Technical Sciences, professor, professor of "Road Surveying and Design" MADI*

(VIRTUAL) 15-00 – 18-00

Chapter 7. Electrical and electronic engineering pedagogy

Section Chairman: S.L. Yablochnikov, *Doctor of Sciences, Professor, Plekhanov Russian University of Economics*

Scientific and Technological Centre of Unique Instrumentation of the RAS
10-00 – 15-00

Chapter 8. Mathematical modeling of physical processes. Optical technologies and instrumentation

Section Chairmans: Vitold E. Pozhar, *Doctor of Physical and Mathematical Sciences, Head of Department, Acousto-Optical Information Systems, Scientific and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences*
Vladimir N. Bely, *Doctor of Physical and Mathematical Sciences, Academician of the National Academy of Sciences of Belarus, Head of the Diagnostic Systems Center, Institute of Physics*

12 November 2026

Lecture hall MADI (аудитория) 282
11-00 – 13-30
Online connection is possible

Chapter 3. Components and systems of power plants for advanced vehicles

Section Chairmans: A.Yu. Dunin, *Doctor of Technical Sciences, Associate Professor,*
Head of the Department "Thermal Engineering and Automotive and Tractor Engines" MADI

K.M. Sidorov, *Candidate of Technical Sciences, Associate Professor,*
Head of the Department "Electrical Engineering and Electrical Equipment" MADI

Lecture hall MADI (аудитория) С31
10-00 – 12-30
Online connection is possible

Chapter 4. Advanced technologies and strategies for transportation systems

Section Chairman: A.V. Ostroukh, *Doctor of Technical Sciences, professor,*
Head of the Department "Automated Control Systems" MADI

Lecture hall MADI (аудитория) 102н
11-00 – 14-00
Online connection is possible

Chapter 5. Technologies for management and data exchange in ITS and autonomous vehicle traffic

Section Chairman: S.V. Zhankaziev, *Doctor of Technical Sciences, professor,*
Head. of the Department "Traffic Organization and Safety, Intelligent Transport Systems", MADI

November 11, 2026
Lecture hall MADI (аудитория) 345
10-00 – 15-00

CHAPTER 1
ADVANCED DIGITAL INTELLIGENT TECHNOLOGIES, ROBOTIC AND BIG DATA SYSTEMS, MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

(ПЕРЕДОВЫЕ ЦИФРОВЫЕ ИНТЕЛЛЕКТУАЛЬНЫЕ ТЕХНОЛОГИИ, РОБОТИЗИРОВАННЫЕ СИСТЕМЫ И СИСТЕМЫ БОЛЬШИХ ДАННЫХ, МАШИННОЕ ОБУЧЕНИЕ И ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ)

CHAIRMEN: M.V. Yashina, *Doctor of Technical Sciences, Cand. physical-mat. Sciences, professor, head. Department of "Engineering and Mathematics of Applied Artificial Intelligence Systems"MADI, Member, IEEE*

1. Levon V. Agamirov
Moscow Technical University of Communications and Informatics, Moscow, Russia; National Research University "Moscow Power Engineering Institute", Moscow, Russia
Vladimir L. Agamirov, Alexandra P. Dybaleva, Ivan M. Luchkov, Natalia V. Toutova
Moscow Technical University of Communications and Informatics, Moscow, Russia
INDEPENDENT INTEGRITY VERIFICATION OF LABORATORY RECORDS IN LEGACY SENAITE LIMS USING AN EXTERNAL PROOF SERVICE AND HYPERLEDGER BESU

2. Nikita Andriyanov
Financial Univeristy under the Government of the Russian Federation, Moscow, Russia
Alexandr Tashlinsky
Ulyanovsk State Technical University, Ulyanovsk, Russia
DOUBLY STOCHASTIC NONLINEAR FILTERING FOR YOLO-BASED MULTI-OBJECT TRACKING UNDER VARIABLE ACCELERATION

3. Sergey Degtyarev, Irina Dobrynina, Ksenia Polyantseva, Andrei Sergeev
Moscow Technical University of Communications and Informatics, Moscow, Russia
NEURAL NETWORK IMAGE RESTORATION TO IMPROVE THE ACCURACY OF DETECTION OF ROAD INFRASTRUCTURE OBJECTS IN DIFFICULT WEATHER CONDITIONS

4. Vitaly Dementiev
Ulyanovsk State Technical University, Ulyanovsk, Russia
Nikita Andriyanov
Financial Univeristy under the Government of the Russian Federation, Moscow, Russia
JOINT U-NET AND YOLO PREPROCESSING FOR UAV IMAGE REGISTRATION OF ENGINEERING STRUCTURES

5. Irina Dobrynina
Moscow Technical University of Communications and Informatics, Moscow, Russia
ON CONJUGACY IN COLORED SUBGROUPS OF TREE GENERALIZED ARTIN GROUPS

6. Anastasia S. Dotkulova, Valeriya O. Kharitonova, Alexander A. Zhilenko
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
Marina V. Yashina
Moscow Automobile and Road Construction State Technical University (MADI);
Moscow Technical University of Communications and Informatics, Moscow, Russia
Givi G. Nadareishvili
NAMI Russian State Scientific Research Center, Moscow, Russia
NEURAL NETWORK SIMULATION OF REAGENT PREPARATION PROCESS DURING INJECTION FOR THE SCR SYSTEM

7. Timur Fatkhulin, Yuri Leokhin, Svetlana Dymkova, Artem Kireev, Odinaev Nurali
Moscow Technical University of Communications and Informatics, Moscow, Russia
ON THE TASK OF AUTOMATED SELECTING THE NETWORK INFRASTRUCTURE CONFIGURATION

8. L. N. Isaeva, D. D. Borisova, D. A. Kulagin, A. A. Dorofeev, V. I. Korotkova
Moscow Technical University of Communications and Informatics, Moscow, Russia
INTELLIGENT DISTRIBUTION OF NETWORK TRAFFIC FOR AUTONOMOUS VEHICLES

9. Max S. Kapustin
Moscow Technical University of Communication and Informatics, Moscow, Russia
COMPARATIVE ANALYSIS OF CENTRALIZED AND DECENTRALIZED APPROACHES USING BLACKBOARD ARCHITECTURE

10. Peter Kulagin
Moscow Center for Advanced Studies, Moscow, Russia
Danil Kazimirov, Marat Gilmanov
Smart Engines Service LLC, Moscow, Russia
Vasiliy Postnikov
Cognitive Technologies LLC, Moscow, Russia
Dmitry Nikolaev
Smart Engines Service LLC, Moscow, Russia
OPTIMIZATION-BASED METHOD FOR LINE SEGMENT DETECTION USING THE FAST FORWARD AND ADJOINT HOUGH TRANSFORMS

11. Alexey Kuzmichenko, Irina Dobrynina
Moscow Technical University of Communications and Informatics, Moscow, Russia
ARCHITECTURE-AWARE KNEE DETECTION AND QUALITY METRICS FOR SIZE-DEPTH PARETO FRONTS OF ADDERS

12. Yuri Leokhin, Timur Fatkhulin, Svetlana Dymkova, Igor Kot, Odinaev Nurali
Moscow Technical University of Communications and Informatics, Moscow, Russia
ON THE TASK OF AUTOMATED ANALYSIS OF TECHNICAL INFORMATION IN THE ROAD CONSTRUCTION INDUSTRY

13. Daniil V. Marhaskov
Moscow Technical University of Communications and Informatics, Moscow, Russia;
Rostov State University of Economics, Rostov-on-Don, Russia
Sergey V. Sokolov
Moscow Technical University of Communications and Informatics, Moscow, Russia
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Moscow Technical University of Communications and Informatics, Moscow, Russia;
Don State Technical University, Rostov-on-Don, Russia
Vasiliy I. Yuhnov
Moscow Technical University of Communications and Informatics, Moscow, Russia
LEAST SQUARES-BASED ANALYTICAL SYNTHESIS OF BIOMETRIC-NEURAL NETWORK CONVERTER WEIGHTS ENABLING DIRECT INTERPRETABLE PARAMETER AUDITING

14. Ksenia Polyantseva, Sergey Degtyarev, Andrei Sergeev
Moscow Technical University of Communications and Informatics, Moscow, Russia
A ROBUST NEURAL NETWORK-BASED METHOD FOR DETECTING ROAD SURFACE DEFECTS UNDER LATENT IMAGE NOISE

15. Timur D. Potapchenko
Moscow Technical University of Communications and Informatics, Moscow, Russia
RISK-ORIENTED FORECASTING OF NITROGEN DIOXIDE AND FINE PARTICULATE MATTER USING EXPLAINABLE MACHINE LEARNING

16. Andrei Sergeev, Ksenia Polyantseva, Sergey Degtyarev
Moscow Technical University of Communications and Informatics, Moscow, Russia
A MULTIMODAL DRIVER STATE MONITORING METHOD BASED ON THE FUSION OF VISUAL AND AUDIO DATA

17. Sergey Simonov, Alexander Tereshenkov
Moscow Technical University of Communications and Informatics, Moscow, Russia
Anastasia Shevtsova
Institute of Additional Education and Vocational Training "Higher Technological School of BSTU named after V.G. Shukhov";
Belgorod State Technological University named after V.G. Shukhov, Belgorod, Russia
Olga Bulatova
Don State Technical University, Rostov-on-Don, Russia
SYNTHETIC DATA GENERATION FOR FEW-SHOT FINE-TUNING OF A ROAD SIGN DETECTOR

18. M. K. Tyulkina, L. A. Tremasova, D. V. Gadasin, D. D. Gadasin
Moscow Technical University of Communications and Informatics, Moscow, Russia
GRADIENT BOOSTING MODEL FOR SHORT-TERM GLUCOSE LEVEL PREDICTION IN A DECISION SUPPORT SYSTEM FOR TYPE 1 DIABETES

19. Vladislav T. Yudin
ITMO University, ST Petersburg, Russia
Vyacheslav V. Konyashov
Institution of Science "IKCSEKT", ST Petersburg, Russia
Oleg A. Kolganov
ITMO University, ST Petersburg, Russia
Alexey S. Sergeev
Institution of Science "IKCSEKT", ST Petersburg, Russia
Vladimir E. Prokhorovich
ITMO University, ST Petersburg, Russia
COMPARATIVE ACCURACY EVALUATION OF 2D LASER SCANNERS FOR COMPLEX-PROFILE COMPONENT INSPECTION

20. Marina V. Yashina
Moscow Automobile and Road Construction State Technical University (MADI);
Moscow Technical University of Communications and Informatics, Moscow, Russia
Yuri V. Trofimenko
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
Ivan A. Kuteynikov
Moscow Automobile and Road Construction State Technical University (MADI);
Moscow Technical University of Communications and Informatics, Moscow, Russia
Dmitry S. Gerasimov
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
Roman S. Runets
Road Innovation Center;
Institute of Transport Development;
Moscow Automobile and Road Construction State Technical University (MADI), Krasnodar, Russia
DATA ASSIMILATION METHOD FOR DISTRIBUTED TRAFFIC MONITORING SYSTEM FOR THE MADI-98 MODEL BASED ON THE BACKBONE ROAD NETWORK OF A TOURIST REGION

November 11, 2026
Lecture hall MADI (аудитория) 132
13-30 – 18-00

CHAPTER 2
INTELLIGENT TRANSPORT SYSTEMS AND MONITORING THE STATE OF ROAD NETWORK OBJECTS

(ИНТЕЛЛЕКТУАЛЬНЫЕ ТРАНСПОРТНЫЕ СИСТЕМЫ И МОНИТОРИНГ СОСТОЯНИЯ ОБЪЕКТОВ ДОРОЖНОЙ СЕТИ)

CHAIRMEN: Yu.E. Vasiliev, *Doctor of Technical Sciences, professor, Associate Professor, Head. of the Department "Road Construction Materials and Chemical Technologies" MADI*

1. Vadim M. Borzov, Kamil R. Kharrasov, Marina S. Moseva
Moscow Technical University of Communications and Informatics, Moscow, Russia
ROBUSTNESS OF PERSON RE-IDENTIFICATION MODELS UNDER CHANGING OBSERVATION CONDITIONS

2. Maria A. Brezhneva, Ludmila P. Bessonova
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
Mikhail M. Nikitaev
State Budgetary Institution of the City of Moscow "Automobile Roads", Moscow, Russia
AN INTELLIGENT SYSTEM FOR EARLY DETECTION OF ASPHALT CONCRETE PAVEMENT DEFECTS BASED ON CONVOLUTIONAL NEURAL NETWORKS

3. D. V. Gadasin, D. S. Kalininsky, L. A. Tremasova, D. V. Ignatov
Moscow Technical University of Communications and Informatics, Moscow, Russia
BUILDING AN ALMOST OPTIMAL TREE FOR DETERMINING THE ROUTE OF AUTONOMOUS TRANSPORT

4. Alexey A. Ignatyev, Igor Yu. Sarichev, Vladimir I. Kochnev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
INTELLIGENT QUALITY CONTROL OF ASPHALT CONCRETE PAVING BASED ON ONBOARD ROLLER SENSORS AND AN ADAPTIVE COMPACTION REGRESSION MODEL

5. Andrey A. Koptev
Small Innovative Enterprise "Monitoring of Roads and Road Technologies ("SIE "MADiDT"), Moscow, Russia
Aleksey A. Ignatyev, Violetta O. Menkina, Anna A. Voyeyko
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
MONITORING THE THERMAL AND MOISTURE REGIME OF PAVEMENT STRUCTURES USING EMBEDDED WIRELESS SENSORS AND AN LPWAN NETWORK

6. Nikita S. Mironov, Georgy I. Semyonov, Yuriy E. Vasiliev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
FIBER REINFORCED SULFUR CONCRETE STRUCTURES FOR MONITORED TRANSPORT INFRASTRUCTURE OF ROAD NETWORKS

7. M. M. Nikitaev
State Budgetary Institution of the City of Moscow "Automobile Roads", Moscow, Russia
Yu. E. Vasiliev, M. A. Soloviev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
A. A. Tsesar, S. V. Varshavskiy
Small Innovative Enterprise "Monitoring of Roads and Road Technologies" (SIE "MADiDT"), Moscow, Russia
INTELLIGENT PLATFORM FOR PAVEMENT LIFE-CYCLE MANAGEMENT AND FIELD MONITORING DATA

8. Egor A. Osipov, Kamil R. Kharrasov, Marina S. Moseva
Moscow Technical University of Communications and Informatics, Moscow, Russia
STABLE FEATURES FOR PERSON RE-IDENTIFICATION UNDER VARYING IMAGING CONDITIONS

9. Pavel V. Plotnikov, Gleb I. Tambovtsev, Andrei G. Vladyko, *Member, IEEE*
The Bonch-Bruevich Saint-Petersburg State University of Telecommunications, Saint Petersburg, Russia
ESTIMATING THE OPTIMAL NUMBER OF MOBILE ROADSIDE UNITS IN URBAN V2X NETWORKS

10. Gleb A. Ponarin
FAI "Russian Road Scientific Research Institute", Moscow, Russia
Yuriy E. Vasiliev, Aleksey A. Ignatyev, Andrey A. Koptev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
MONITORING AND PREDICTION OF RUTTING IN MODIFIED SULFUR-CONTAINING ASPHALT CONCRETE PAVEMENTS USING INTELLIGENT TRANSPORT SYSTEMS

11. Georgy I. Semyonov, Nikita S. Mironov, Iuriy E. Vasiliev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
ADDITIVE MANUFACTURING WITH SULFUR CONCRETE MIXTURES FOR INTELLIGENT TRANSPORT INFRASTRUCTURE OBJECTS

12. M. A. Soloviev
Small Innovative Enterprise "Monitoring of Roads and Road Technologies" (SIE "MADiDT"), Moscow, Russia
M. A. Brezhneva, K. E. Shugaev, U. O. Menkina, G. G. Yagudaev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
INTELLIGENT PREDICTION OF ASPHALT PAVEMENT REMAINING SERVICE LIFE FROM BITUMINOUS BINDER RHEOLOGY

13. Andrey M. Valuev
Mechanical Engineering Research Institute named after A.A. Blagonravov of RAS, Moscow, Russia
TRAFFIC LIGHT CYCLES COORDINATION AT THE URBAN ROAD NETWORK AS AN ELEMENT FOR PROSPECTIVE ITSS

14. Sergey V. Varshavskiy
Small Innovative Enterprise "Monitoring of Roads and Road Technologies" (SIE "MADiDT"), Moscow, Russia
Kirill E. Shugaev, Vladimir I. Kochnev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
GPR AND LIDAR SCANNING FOR INTELLIGENT SURVEY AND DIGITAL TWIN OF ROAD PAVEMENT STRUCTURES

15. Yu. E. Vasiliev, M. A. Soloviev, K. E. Shugaev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
A. A. Tsesar, S. V. Varshavskiy
Small Innovative Enterprise "Monitoring of Roads and Road Technologies" (SIE "MADiDT"), Moscow, Russia
INTELLIGENT MULTIMODAL PROCESSING OF PAVEMENT MONITORING DATA WITH GROUND-PENETRATING RADAR VALIDATION

16. Aleksey Yu. Vasiliev, Larisa A. Urkhanova, Anastasiya A. Netsvet
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
Andrey A. Koptev
Small Innovative Enterprise "Monitoring of Roads and Road Technologies" (SIE "MADiDT"), Moscow, Russia
MONITORING OF TRAFFIC-INDUCED NOISE AND VIBRATION ON ROAD SECTIONS WITH RUBBER-CONCRETE PAVEMENT

17. Olga A. Voyeyko, Sergey A. Batchaev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
Gleb A. Ponarin
FAI "Russian Road Scientific Research Institute", Moscow, Russia
AUTOMATED MONITORING OF DE-ICING MATERIALS AND ASSESSMENT OF THEIR IMPACT ON ROAD INFRASTRUCTURE

November 11, 2026
Lecture hall MADI (аудитория) 415
10-00 – 12-30

CHAPTER 6

ELECTRONIC AND COMPUTER TECHNOLOGIES, MODELING IN ROADS AND BRIDGES DESIGN AND CONSTRUCTION

(ЭЛЕКТРОННЫЕ И КОМПЬЮТЕРНЫЕ ТЕХНОЛОГИИ, МОДЕЛИРОВАНИЕ ПРИ ПРОЕКТИРОВАНИИ И СТРОИТЕЛЬСТВЕ ДОРОГ И МОСТОВ)

CHAIRMENS: A.V. Kostsov, *Doctor of Technical Sciences, Associate Professor, Head of the Department "Road Surveying and Design" MADI*

P.I. Pospelov, *Doctor of Technical Sciences, professor, professor of "Road Surveying and Design" MADI*

1. Bushra Kak
Moscow Technical University of Communications and Informatics, Moscow, Russia
THE NONLINEAR DYNAMICS OF RELATIVISTIC ELECTRON BEAM IN A PLASMA ENVIRONMENT

2. Andrey A. Kotov
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
FROM NATURAL-LANGUAGE INTENT TO ROAD GEOMETRY: REPRODUCIBLE ROAD DESIGN WITH FREECAD SCRIPTS

3. Tatyana K. Komarova, Vladimir A. Makushchenko, Pavel I. Pospelov, Alexey V. Kostsov, Sergey S. Mordvin
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
METHODOLOGY FOR APPLYING LLMS IN ROAD ENGINEERING: FROM PROMPT-ENGINEERING TO RAG-ASSISTANTS

4. Alexey V. Kostsov, Tatyana K. Komarova, Dmitry S. Martyakhin
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
Aslan A. Kortiev
North Caucasus Mining and Metallurgical Institute (state Technological University), Vladikavkaz, Russia
A STUDY OF THE RELIABILITY OF TRAVEL TIME WHEN DRIVING A PERSONAL CAR IN URBAN CONDITIONS

5. Vladimir A. Makushchenko, Alexey V. Kostsov, Tatyana K. Komarova, Pavel I. Pospelov, Dmitry S. Martiakhin
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
THE USE OF SMALL-RADIUS CURVES FOR TRAFFIC CALMING ON LOW-VOLUME STREETS

6. Artem A. Zuykov, Tatiana K. Komarova, Pavel I. Pospelov, Sergey S. Mordvin, Vladimir N. Vashlanov
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
DEVELOPMENT OF AN ARTIFICIAL INTELLIGENCE TRAINING ALGORITHM FOR DESIGNING THE ROUTE OF A HIGHWAY TAKING INTO ACCOUNT GEOLOGICAL CONDITIONS

7. Bayram Ibrahimov
Azerbaijan Technical University, National Defence University, Baku, Azerbaijan
Vusal Kerimov
Institute of Control Systems of the Azerbaijan NAS, Baku, Azerbaijan
ANALYSIS OF THROUGHPUT METRICS FOR MULTISERVICE CONVERGED NETWORKS USING SDN TECHNOLOGY

November 11, 2026
VIRTUAL
15-00 – 18-00

CHAPTER 7

ELECTRICAL AND ELECTRONIC ENGINEERING PEDAGOGY

(ПЕДАГОГИКА В ОБЛАСТИ ЭЛЕКТРОТЕХНИКИ И ЭЛЕКТРОННОЙ ИНЖЕНЕРИИ)

CHAIRMEN: S. L. Yablochnikov, *Doctor of Sciences, Professor,*
Plekhanov Russian University of Economics

1. Anastasiia Y. Kudriashova, Irina S. Kretova, Anastasia V. Ermakova, Alexandr V. Bahus
Moscow Technical University of Communication and Informatics, Moscow, Russia
DEVELOPMENT OF THE EDUCATIONAL AND RESEARCH COMPLEX FOR CRYPTOGRAPHIC METHODS AND MEANS OF INFORMATION PROTECTION

2. A. R. Lakernik, A. M. Raitsin
Moscow Technical University of Communications and Informatics, Moscow, Russia
QUANTITATIVE ANALYSIS OF INTERDISCIPLINARY CONNECTIONS AND ASSESSMENT OF THE SAVINGS IN TEACHING HOURS IN THE UNDERGRADUATE CURRICULUM

3. K. A. Makhiboroda
College of Justice, Ryazan, Russia
S. L. Yablochnikov
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I. O. Yablochnikova
Plekhanov Russian University of Economics;
National University of Science and Technology "MISIS", Moscow, Russia
TRANSFORMATION OF THE BASIC PRINCIPLES OF CYBERNETIC PEDAGOGY IN THE MODERN INFORMATION SOCIETY

4. Sergei A. Marinin, Vladimir V. Maznichenko, Elizaveta V. Savchenko
Volga-Vyatka Branch of Moscow Technical University of Communications and Informatics, Nizhniy Novgorod, Russia
DEVELOPMENT OF ENGINEERING COMPETENCIES DURING THE DESIGN AND DYNAMIC ANALYSIS OF A MANIPULATOR ARM

5. Tofig Mansurov
Azerbaijan Technical University, Baku, Azerbaijan
Nafisa Abdulova
Sumgayit State University, Baku, Azerbaijan
Murad Jahangirov
Azerbaijan Technical University, Baku, Azerbaijan
Khanlar Hashimov
Azerbaijan State Oil and Industry University, Baku, Azerbaijan
S. L. Yablochnikov
National Research University "MPEI", Plekhanov Russian University of Economics; Russian Technological University MIREA, Moscow, Russia
ELECTROSTATIC MODELING OF SIGNAL CHARGE SCREENING IN CHARGE COUPLED OPTICAL SENSORS

6. Galina P. Platunina, Tatyana Y. Salutina, Olga G. Vandina, Natalia I. Obukhova
Moscow Technical University of Communication and Informatics, Moscow, Russia
ARTIFICIAL INTELLIGENCE IN ELECTRICAL ENGINEERING TEACHING: SAVING TEACHER TIME OR ADDING NEW COSTS

7. Olga I. Sharavova, Maria M. Sharavova, Tatyana A. Kuzovkova, Anastasia V. Vekovishcheva
Moscow Technical University of Communication and Informatics, Moscow, Russia
INTEGRATION OF INTELLECTUAL PROPERTY MANAGEMENT INTO THE DESIGN EDUCATIONAL TRAJECTORY OF ELECTRONICS ENGINEERS

8. Vladimir E. Shcherbatykh
Moscow Technical University of Communications and Informatics, Moscow, Russia
METACOGNITIVE AUDIT AS A TOOL FOR IMPROVING THE QUALITY OF MATHEMATICAL TRAINING FOR FIRST-YEAR STUDENTS

9. Olga G. Vandina, Galina P. Platunina, Tatyana Y. Salutina, Natalia I. Obukhova
Moscow Technical University of Communication and Informatics, Moscow, Russia
DEVELOPING FINANCIAL LITERACY IN FUTURE ENGINEERS: INTERNATIONAL CONCEPTS AND MODERN MODELS OF ITS DEVELOPMENT IN GLOBAL PRACTICE

10. I. O. Yablochnikova, *Plekhanov Russian University of Economics, National University of Science and Technology "MISIS", Moscow, Russia*
S. L. Yablochnikov, *National Research University "MPEI", Russian Technological University MIREA; Plekhanov Russian University of Economics, Moscow, Russia*
V. B. Dzobelova, *North Ossetian State University named after Kosta Levanovich Khetagurov, Vladikavkaz, Russia*
T. M. Mansurov, *Azerbaijan Technical University, Baku, Azerbaijan*
E. V. Bazhina, *Moscow State University of Civil Engineering, Moscow, Russia*
ASPECTS OF PRACTICAL APPLICATION OF NUMERICAL METHODS FOR DETERMINING THE STRUCTURE AND PARAMETERS OF A CONTROL SYSTEM

November 11, 2026
Scientific and Technological Centre of Unique Instrumentation of the RAS

10-00 – 14-00

CHAPTER 8
MATHEMATICAL MODELING OF PHYSICAL PROCESSES. OPTICAL TECHNOLOGIES AND INSTRUMENTATION

(МАТЕМАТИЧЕСКОЕ МОДЕЛИРОВАНИЕ ФИЗИЧЕСКИХ ПРОЦЕССОВ. ОПТИЧЕСКИЕ ТЕХНОЛОГИИ И ПРИБОРОСТРОЕНИЕ)

CHAIRMENS: Vitold E. Pozhar, *Doctor of Physical and Mathematical Sciences, Head of Department, Acousto-Optical Information Systems, Scientific and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences*
Vladimir N. Bely, *Doctor of Physical and Mathematical Sciences, Academician of the National Academy of Sciences of Belarus, Head of the Diagnostic Systems Center, Institute of Physics*

1. T. V. Blagova, I. Sh. Khasanov
Scientific and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences, Moscow, Russia
COMPLEX CALIBRATION OF A TERAHERTZ LIQUID-CRYSTAL MODULATOR FOR COMPUTATIONAL GHOST IMAGING

2. Artem M. Gornov
Center of Supporting the Operation of Space Technology, ST Petersburg, Russia
Andrey A. Sorokin
JSC "UEC-UMPO" Branch "A. Lyulka OKB", Moscow, Russia
Vladimir E. Prohorovich, Valeriy V. Malyy, Vladimir A. Bychenok
Center of Supporting the Operation of Space Technology, ST Petersburg, Russia
AUTOMATED SYSTEM FOR LASER-ULTRASONIC NON-DESTRUCTIVE TESTING OF AXISYMMETRIC PRODUCTS WITH POLYMER-COMPOSITE COATINGS

3. I. Sh. Khasanov, S. A. Lobastov
Scientific and Technological Center of Unique Instrumentation, Russian Academy of Sciences, Moscow, Russia
MODELING AND EXPERIMENTAL EVALUATION OF IN SITU THICKNESS MONITORING FOR ULTRATHIN COATINGS USING SURFACE PLASMON RESONANCE SPECTROSCOPY DURING VACUUM DEPOSITION

4. Demid D. Khokhlov, Alexey A. Bykov, Andrey Yu. Belykh, Lyudmila N. Drogan, Roman D. Asyutin
Scientific and Technological Centre of Unique Instrumentation of the Russian Academy of Sciences, Moscow, Russia
IN-SITU SPECTRAL THERMOGRAPHY AND POST-PROCESS ULTRASONIC EVALUATION OF LASER METAL DEPOSITED SAMPLES

5. A. Kucherik, A. Osipov A., D. Bodunov, A. Abramov, A. Kuznetsov, V. Samyshkin
Vladimir State University, Vladimir, Russia
LASER SYNTHESIS OF LINEAR CARBON STRUCTURES FOR SENSING APPLICATIONS

6. A. Kuznetsov, D. Bodunov, A. Abramov, V. Samyshkin, A. Kucherik, A. Osipov
Vladimir State University, Vladimir, Russia
FORMATION OF A HYDROPHOBIC MICROSTRUCTURE ON THE SURFACE OF AN ALUMINUM SUBSTRATE USING A NANOSECOND LASER

7. Anastasia M. Vasilega, Alexander A. Vinarsky
Kotelnikov IRE RAS, Moscow, Russia
Larisa A. Chigaleichick, Vsevolod V. Poleshchuk, Alexey V. Karabanov
Russian Center of Neurology and Neurosciences, Moscow, Russia
A STUDY OF FIXATIONAL SACCADES IN PATIENTS WITH PARKINSON'S DISEASE AND ESSENTIAL TREMOR USING THE WAVETRAIN ELECTRICAL ACTIVITY ANALYSIS METHOD

November 12, 2026
Lecture hall MADI (аудитория) 282
11-00 – 13-30

CHAPTER 3
ELECTRONIC DRIVER ASSISTANCE SYSTEMS. SELF-DRIVING CARS AND ELECTRIC VEHICLE

(ЭЛЕКТРОННЫЕ СИСТЕМЫ ПОМОЩИ ВОДИТЕЛЮ. САМОУПРАВЛЯЕМЫЕ АВТОМОБИЛИ И ЭЛЕКТРОМОБИЛИ)

CHAIRMENS: A.Yu. Dunin, *Doctor of Technical Sciences, Associate Professor, Head. of the Department "Thermal Engineering and Automotive and Tractor Engines" MADI*

K. M. Sidorov, *Candidate of Technical Sciences, Associate Professor, Head. of the Department "Electrical Engineering and Electrical Equipment" MADI*

1. A. V. Aleksandrov, A. Yu. Dunin, A. M. Petrov, E. M. Filippova, A. V. Katarzhin
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
METHODOLOGICAL ISSUES IN DETERMINING THE INDICATED TORQUE AND THE FRICTIONAL TORQUE OF AN ENGINE

2**. Andrey Yu. Dunin, Elmira U. Akhmetzhanova, Sergey E. Nikolaev, Vladimir R. Filippov, Andrey N. Starostin**
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
DIGITAL MODELS FOR DETERMINING THE EFFECT OF INCREASED INJECTION PRESSURE ON THE OPERATING PROCESS OF A HIGH-SPEED DIESEL ENGINE

3. O. B. Popov, T. V. Chernysheva, S. A. Litvin, A. A. Korostelev
Moscow Technical University of Communication and Informatics, Moscow, Russia
REDUCTION OF DIGITAL AUDIO BROADCASTING SIGNAL DISTORTION IN THE TRANSMISSION CHANNEL

4. A. G. Grishchenko, D. A. Tsibikov, K. M. Sidorov, S. K. Yushkevich
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
RESULTS OF THE ELECTRIC HIGH VOLTAGE HEATER DEVELOPMENT FOR ELECTRIC VEHICLES

5. Vladimir V. Sinyavski, Igor V. Maximov, Mikhail G. Shatrov, Alexander V. Katarzhin
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
MODELING OF DUAL-FUEL ENGINE WITH REDUCED INJECTOR AND GAS ENGINE COMBUSTION CHAMBER

6. Andrey L. Yakovenko, Mikhail G. Shatrov, Nguyen Duc Kien, Sergey D. Skorodelov, Artur R. Asoyan
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
A STUDY OF THE POSSIBILITY OF REDUCING STRUCTURE-BORNE NOISE FROM THE DIESEL ENGINE WORKING PROCESS BY USING METHYL ESTER OF RAPESEED OIL

November 12, 2026
Lecture hall MADI (аудитория) C31
10-00 – 12-30

CHAPTER 4
ADVANCED TECHNOLOGIES AND STRATEGIES FOR TRANSPORTATION SYSTEMS

(ПЕРЕДОВЫЕ ТЕХНОЛОГИИ И СТРАТЕГИИ ДЛЯ ТРАНСПОРТНЫХ СИСТЕМ)

CHAIRMEN: A.V. Ostroukh, D*octor of Technical Sciences, professor,*
Head. of the Department of "Automated Control Systems" MADI

1. N. G. Kuftinova, T. K. Komarova, A. V. Ostroukh, D. D. Demidov, O. A. Tetchenko
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
SCALABLE CONTEXT MANAGEMENT FOR LARGE LANGUAGE MODELS IN RESOURCE-AWARE TRANSPORT DATA PROCESSING

2. Liudmila Y. Krasikova
Moscow Technical University of Communications and Informatics, Moscow, Russia
Tatiana V. Krasikova
IQVIA Solutions LLC, Moscow, Russia
Vladimir A. Tsarenko
Moscow Technical University of Communications and Informatics, Moscow, Russia
SELECTION OF PROTECTION AND LOCAL REDUNDANCY METHODS FOR FIBER-OPTIC LINES ALONG HIGHWAYS

3. A. V. Ostroukh, N. G. Kuftinova, T. K. Komarova, C. B. Pronin, O. A. Tetchenko
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
RESEARCH OF MULTIDIMENSIONAL TIME SERIES FORECASTING BASED ON A HYPERNETWORK FOR TRANSPORT ANALYTICS

4. D. V. Stroganov, A. M. Borzenkov, O. A. Tetchenko, A. A. Podberezkin, P. F. Urchik
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
STUDY OF ADAPTIVE LANGUAGE-BASED SEMANTIC COMPRESSION FOR COOPERATIVE INTELLIGENT TRANSPORTATION SYSTEMS

5. N. E. Surkova, I. V. Demyanushko, O. I. Maksimychev, L. F. Samigullin, I. A. Ostroukh
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
USE OF COMPUTER VISION METHODS AND TOOLS FOR RECOGNIZING REGULATORY DATA ON THE DESIGN OF ROAD ELEMENTS FOR AUTOMATED CONTROL OF STRUCTURES

6. Tongzhou Wang, Ting Li
School of Energy and Power Engineering, Beihang University, Beijing, China
CONCEPTUAL DESIGN OF A HIGH-POWER-DENSITY SLOTLESS STARTER-GENERATOR FOR MGT HYBRID POWER SYSTEMS

7. P. F. Urchik, A. M. Borzenkov, A. M. Shmonin, A. A. Podberezkin, D. V. Stroganov
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
NATURAL LANGUAGE CONTROL OF RARE AUTONOMOUS-DRIVING SCENARIO GENERATION USING FOUNDATION MODELS

November 12, 2026
Lecture hall MADI (аудитория) 102н
11-00 – 14-00

CHAPTER 5
TECHNOLOGIES FOR MANAGEMENT AND DATA EXCHANGE IN ITS AND AUTONOMOUS VEHICLE TRAFFIC

(ТЕХНОЛОГИИ УПРАВЛЕНИЯ И ОБМЕНА ДАННЫМИ В ИТС И БЕСПИЛОТНОМ ДВИЖЕНИИ ТРАНСПОРТНЫХ СРЕДСТВ)

CHAIRMEN: S.V. Zhankaziev, *Doctor of Technical Sciences, professor, Head. of the Department "Traffic Organization and Safety, Intelligent Transport Systems", MADI*

1. Phuong Mai Bui
School of Business Administration, VNU University of Economics and Business, Vietnam National University, Hanoi, Vietnam
THEORETICAL FOUNDATIONS FOR ORGANIZING NON-STATIONARY PASSENGER TRANSPORT SYSTEMS

2. A. A. Frolov, D. S. Chirov, O. G. Chertova, A. I. Komisarov
Moscow Technical University of Communications and Informatics, Moscow, Russia
PROMISING SIGNAL-CODE STRUCTURES FOR BUILDING COMMUNICATION SYSTEMS WITH UNMANNED VEHICLES

3. Yulia A. Kosova
Russian University of Transport (RUT (MIIT);
Moscow Technical University of Communications and Informatics, Moscow. Russia
COMPARATIVE ANALYSIS OF OPTICAL FIBERS FOR DEPLOYING QUANTUM COMMUNICATION NETWORKS IN INTELLIGENT TRANSPORTATION SYSTEM BACKBONE INFRASTRUCTURES

4. G. A. Lebedev, S. V. Zhankaziev, A. I. Vorobyev, A.V. Zamytskyh, G. S. Korovin
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
SOFTWARE IMPLEMENTATION OF COOPERATIVE ROAD-SAFETY AND TRAFFIC-SIGNAL SCENARIOS IN VEHICLE-TO-EVERYTHING SYSTEMS

5. A. I. Vorobyev, S. V. Zhankaziev, A.V. Zamytskyh, G. S. Korovin, G. A. Lebedev
Moscow Automobile and Road Construction State Technical University (MADI), Moscow, Russia
EXPERIMENTAL EVALUATION OF V2X SCENARIOS AT THE MADI TEST SITE

6. S. V. Zhankaziev, D. B. Efimenko, A. I. Vorobyev, D.V. Seleznev, M. V. Adzhigitov
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DOMAIN ARCHITECTURE OF THE COLLECTIVE MOBILITY SERVICE