



ПРОГРАММА

IV Международная конференция «Передовые технологии в аэрокосмической отрасли, машиностроении и автоматизации» - IV International Conference «Advanced Technologies in Aerospace, Mechanical and Automation Engineering» - “MIST: Aerospace - 2021”

Section 1: Aerospace Technologies and Industrial Production

MIST-IV-1001	Finishing Products from Synthetic Sapphire with the Application of the Vortex Cavitation Effect	A S Asaev, S V Frolova, M S Glazunov, A D Svetov, A B Ivanayskiy	Ryazan Institute (branch) Moscow Polytechnic University; JSC "RNPK"; JSC "Ryazanskiy Radiozavod", Ryazan, Russia
MIST-IV-1002	Implementation of the logical predistortion method to reduce the intersymbol interference of digital signals	P A Polushin, O R Nikitin, V V Kostrov	Vladimir state University
MIST-IV-1003	Elemental-Phase Composition of Multicomponent Coatings Obtained on WC-Co Hard Alloys	E E Bobylyov, I D Storozhenko, D V Kazakov	Kuban State Technological University, Armavir Institute of mechanics and technology (branch of Kuban State Technological University continues), Armavir, Nevinnomyssk Institute of Technology (branch of North-Caucasus Federal University), Nevinnomyssk, Russia
MIST-IV-1004	Transmissions with controlled slipping of the friction mechanism in parallel power flow for tractors	Roman Dobretsov, Sergey Ariko, Irina Troyanovskaya, Marat Kalimullin, Evgeny Tikhonov	Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia; Belarusian State Technological University, Minsk, Republic of Belarus; South Ural State Agrarian University, Chelyabinsk; Kazan State Agrarian University, Kazan; Petrozavodsk State University, Petrozavodsk, Russia

MIST-IV-1006	Study on the boundary layer control system of ship's rudder blade with the maximum effective deflection angle	Valeriy V Yenivatov, Aleksei S Sharatov	Kerch State Maritime Technological University, Kerch, Russia
MIST-IV-1007	Modelling and Technologies of e-Aircraft in Concept Stage Design	Dmitry Rakov	Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH) Moscow, Russia
MIST-IV-1008	Approximate Formulas for the First Eigenfrequency of Curved Beams Calculation	Ilya V Kudryavtsev, Maxim P Khomutov, Konstantin A Kistersky, Pavel A Rastovtsev, Alexander E Mityaev	Siberian Federal University, Krasnoyarsk, Russia; Kuban State Technological University, Kuban, Russia
MIST-IV-1009	Monitoring the influence of heat treatment modes on the structure and properties of products from titanium powders obtained by different production methods	Vladimir Gadalov, Irina Vornacheva, Alexandra Orekhovskaya, Svetlana Lopareva, Vladimir Malikov	South-West State University, Kursk, Russia Belgorod State Agricultural University, Mayskiy, Belgorod Region, Russia Kurgan State Agricultural Academy by T. S. Maltsev, Kurgan, Russia Altai State University, Barnaul, Russia PRO FERRUM Limited Liability Company, St. Petersburg, Russia Baltic State Technical University "Voenmeh", Saint Petersburg, Russia
MIST-IV-1010	Defect and Damage Control of a Specialized Compressor Station Unit	Svetlana A Sazonova, Sergey D Nikolenko, Alla V Zvyagintseva, Tatiana V Zyazina, Dmitry V Sysoev, Svetlana S Sumera	Voronezh State Technical University

MIST-IV-1011	Influence of Support Stiffness on First Critical Force of Spring-Hinged Beam	Ilya V Kudryavtsev, Maxim P Khomutov, Sergey I Troshin, Pavel A Rastovtsev, Alexander E Mityaev	Siberian Federal University, Krasnoyarsk, Russia; Kuban State Technological University, Kuban, Russia
MIST-IV-1012	Test bench for fatigue strength analysis of welded structures	Victor V Kolotushkin, Svetlana A Sazonova, Sergey D Nikolenko, Alla V Zvyagintseva	Voronezh State Technical University
MIST-IV-1014	Design And Development of Equipment For Post-Processing Of Products Manufactured Using Additive Manufacturing Technologies	E Yu Remshev, A I Olekhver, S G Lopareva, D V Loparev, R R Akhmetzyanov	Baltic State Technical University "Voenmeh", Saint Petersburg, Russia Kurgan State Agricultural Academy by T. S. Maltsev, Kurgan, Russia Kazan State Agrarian University, Kazan, Russia
MIST-IV-1015	Forecasting the fire situation at an industrial facility	Svetlana A Sazonova, Alla V Zvyagintseva, Sergey D Nikolenko, Evgeniy N Epifanov, Victor F Asminin, Elena V Druzhinina, Nadezhda V Akamsina	Voronezh State Technical University, Voronezh, Russia; Voronezh State Technical University; Voronezh State Forestry University named after G F Morozov; Voronezh State Forestry University named after G F Morozov; Voronezh State Forestry University named after G F Morozov
MIST-IV-1016	Theoretical Substantiation of the Method for Ultrasonic Controlling the Properties of Solid Extraterrestrial Soils	V N Khmelev, R N Golykh, Q Quan, R V Barsukov	Biysk Technological Institute (branch) of Altai State Technical University named after I.I. Polzunov, Biysk, Russian Federation; Harbin Institute of Technology, Harbin, China

MIST-IV-1017	Development of Shell Digital Model in Order to Determine Effect of Technological Deviations on Shell Limit State	Karina Abdrakhmanova, Valeri Berdin, Iskander Kuzeev, Rezeda Tlyasheva, Liliya Abdrakhmanova	Ufa State Petroleum Technological University, Ufa, Republic of Bashkortostan, Russia
MIST-IV-1019	Change in the Fermi quas level and current - voltage characteristics of diodes with a p-n junction under the action of light and deformation	Gafur Gulyamov, Bahodir B. Shahobiddinov, Alisher Z. Soliyev, Shoxruh R. Nazarov, Baxtiyor Z. Mislidinov	Namangan Engineering Construction Institute, Namangan, Uzbekistan
MIST-IV-1020	Preparation of Data for Machine Learning in the Matlab Program	Filyuza Abdrafikova, Elena Muravyova, Marsel' Sharipov	Ufa State Petroleum Technological University, Branch in Sterlitamak, Sterlitamak
MIST-IV-1021	Ways to Increase the Sealness of Screwed Joints of Casing	Roman Kildyushkin, Farit Yangirov, Dinislam Ibragimov, Tatiana Dikhtyar	Ufa State Petroleum Technological University (USPTU)
MIST-IV-1022	Analytical Solution of the Envelope Extraction Problem using Lensless Technology	I S Schreifel, V I Marchuk, A B Mikhailov, A I Okorochkov	Don State Technical University, Rostov-on-Don, Russia
MIST-IV-1023	The Dynamics of Pressure Waves in Bubble Zones of a Spherical Shape with a Hydrate Forming Gas	A S Chiglintseva, I K Gimaltdinov, I A Chiglintsev, A A Nasyrov	Ufa State Petroleum Technological University, Ufa, Russia; BirsK branch of Bashkir State University, BirsK, Russia
MIST-IV-1024	Estimate of remainder term in clt for the number of empty cells after allocation of particles	O A Islamova, Z S Chay, F S Rakhimova, Sh E Tadjibayeva	Tashkent university of information technologies

MIST-IV-1025	Technological Support of Operation Reliability of Elastic Elements from Bronze Alloy BrNHK	M Yu Silaev, E Yu Remshev, V N Malikov, I A Teterina, R M Galiyev	Baltic State Technical University "Voenmeh", Saint Petersburg, Russia Altai State University, Barnaul, Russia Siberian State Automobile and Highway University (SibADI), Omsk, Russia Kazan Federal University, Kazan, Russia
MIST-IV-1026	Analysis of the main problems of development of additive technologies in the aerospace industry	Nikita K Novoselsky, Ekaterina K Vasileva, Vasilina I Litovchenko	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia
MIST-IV-1027	Computational and Experimental Evaluation of Control Torques and Responses in Drives of Medical Exoskeleton While Walking	A V Kapustin, Yu V Loskutov, N N Pushkarenko, A O Vasiliev	Sarov Physics and Technology Institute of the National Research Nuclear University MEPhI, Sarov; Volga State University of Technology, Yoshkar-Ola; Chuvash State Agrarian University, Cheboksary, Russia
MIST-IV-1028	Deterministic-Probabilistic Image Model in Technologies of Aerospace Monitoring	V Vasilevskiy	Moscow Aviation Institute (National Research University), Moscow, Russia
MIST-IV-1029	Optical Profiler	E A Belkin, V N Poyarkov, O I Markov	Bolhov Plant of semiconductor devices Bolhov, Bolkhov, Russia; Oryol state University, Orel, Russia
MIST-IV-1030	Development of a system for detecting microcracks in turbine blades of aircraft engines	K. B. Mohamad, M. S. Grinkrug, N. A. Novgorodov, Ju. I. Tkacheva	Komsomolsk-on-Amur State University, Komsomolsk-on-Amur, Russia

MIST-IV-1031	Theoretical justification for increasing the efficiency of ultrasonic treatment for dehydration of long-term storage products	Vladimir N. Khmelev, Andrey V. Shalunov, Sergey A. Terentiev, Viktor A. Nesterov, Roman N. Golykh	Biysk Technological Institute (branch) of the Altay State Technical University, Biysk, Russia
MIST-IV-1032	Problems of Using Casting Pressure as a Dynamic Impact Factor on Crystallizing Metal	Maxim S. Denisov, Georgy A. Kotov	Vladimir State University named after Alexander Grigoryevich and Nikolai Grigoryevich Stoletov, Vladimir, Russia
MIST-IV-1033	The chassis of an unmanned tractor for precision farming tasks	R Yu Dobretsov, M N Kalimullin, R F Sabirov, E A Tikhonov and D I Nuretdinov	Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia Kazan State Agrarian University, Kazan, Russia Petrozavodsk State University, Republic of Karelia, Petrozavodsk, Russia Kazan Federal University, Kazan, Russia
MIST-IV-1034	Laser Cladding of the Coating on the Shroud Flanges of the Turbine Blades	M Roshchin	Mechanical Engineering Research Institute of the Russian Academy of Sciences, Moscow, Russia
MIST-IV-1036	Analysis of the dynamic characteristics of a single class heat exchanger as a controlled object with distributed parameters	S A Koneva, V M. Tsaloev, A A Butsanets	Sevastopol State University, Sevastopol, Russia; Admiral Makarov State University of Maritime and Inland Shipping, Saint-Petersburg, Russia
MIST-IV-1037	On the question of choosing a resolution for fractal analysis of fulleroid nanostructures in	V M Petrov, A V Fedosov, S P Yakovlev, A A Butsanets	Baltic State Technical University "VOENMEH" named after D.F. Ustinov, St. Petersburg, Russia; Emperor Alexander I St. Petersburg State Transport

	structural and functional materials		University, St. Petersburg, Russia; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia
MIST-IV-1038	Problem of Organization for Unpredictable Living Systems	M A Filatov, G V Gazya, T V Gavrilenko	Surgut State University, Surgut, Russia; Federal research center for scientific research institute of system research of the Russian Academy of Sciences, Surgut, Russia
MIST-IV-1039	Methodology of checking the accuracy of measuring navigation parameters with a sextan with two degrees of freedom of the large mirror	S I Babich, S V Kozik, V A Sibilev	Siberian State University of Water Transport, Novosibirsk, Russian Federation; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russian Federation
MIST-IV-1040	Analysis of the factors influencing the friction coefficient of the train brake pad	P Yu Ivanov, E Yu Dulskiy, S P Kruglov, S V Kovyrshin, A A Korsun, D O Emel`yanov, S V Treskin	Irkutsk State transport university, Irkutsk
MIST-IV-1042	Development of Automatic Tool Calibration Method for Robotic Machining Complex	Sergei Sukhorukov, Markel Melnichenko, Sergey Cherniy, Ruslan Bazhenov, Irina Karpova, Irina Povkh and Zoya Arkhipova	Komsomolsk-on-Amur, Komsomolsk-on-Amur; Sholom-Aleichem Priamursky State University, Birobidzhan; Pacific National University, Khabarovsk; Far Eastern State Transport University, Khabarovsk; Baikal State University, Irkutsk, Russia

MIST-IV-1043	The method of determining the coefficient of friction in the «pad-wheel» system	P Yu Ivanov, E Yu Dulskiy, S P Kruglov, S V Kovyrshin, A A Korsun, A A Khamnaeva D O Emel`yanov	Irkutsk State transport university, Irkutsk
MIST-IV-1044	Advanced Compact Shaft Gearboxes for Tractors	D A Kuznetsov, R Yu Dobretsov, S Ye Ariko, E A Tikhonov, Yu L Pushkov, A S Krivonogova	Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia Belarusian State Technological University, Minsk, Republic of Belarus Petrozavodsk State University, Lenin Ave., Republic of Karelia, Petrozavodsk, Russia Saint Petersburg State Forest Technical University named after S.M. Kirov, St. Petersburg, Russia
MIST-IV-1045	Innovative technologies in construction: theoretical foundations in the conditions of the VUCA-world	M S Agafonova, L V Shevchenko, E V Bautina, I V Kryuchkova, T I Polshchikove	Voronezh State Technical University, Russia
MIST-IV-1046	Increase of Oscillations Amplitudes of Flexural-Oscillating Disc Emitter	R S Dorovskikh, V N Khmelev, V A Nesterov, A V Shalunov, A E Zyatkova	Biysk Technological Institute (branch) of the Altay State Technical University
MIST-IV-1047	Total Ionizing Dose (TID) and Displacement Damage (DD) Analyses for Different Space Missions	B Kocaman, M Harmandali	TUBITAK Space Technologies Research Institute, Ankara, Turkey
MIST-IV-1048	Mathematical model of heat and mass transfer in nanofluids	S Smagin, I Manzhula	Computing Center FEB RAS, Khabarovsk, Russia

	as applied to a direct absorption solar collector		
MIST-IV-1049	The Ion-Magnetosphere Characteristics Calculation for Modelling Masking Interference Affecting the Aircraft Radars and Electronic Equipment Operation	O Shestakova	Moscow Aviation Institute (National Research University), Moscow, Russian Federation
MIST-IV-1050	Control of the energy signal of a solar space power plant	Maria Barkova, Alexandr Zhukov, Igor Kartsan, Dmitriy Klimov, Violetta Kuznetsova	Joint Stock Company «Russian Space Systems»; FGBNU "Expert and Analytical Center"; MIREA - Russian Technological University; Institute of Astronomy of the Russian Academy of Science; Joint Stock Company "Special Research of Moscow Power Engineering Institute", Moscow; Reshetnev Siberian State University of Science and Technology, Krasnoyarsk; Marine Hydrophysical Institute, Russian Academy of Sciences; Sevastopol State University, Sevastopol; Tula State University, Tula, Russia
MIST-IV-1053	Development of a model for efficient processing and presentation data for discovering traffic anomalies in vehicular ad hoc networks	L S Grishina, A Yu Zhigalov, D I Parfenov, I P Bolodurina, L V Legashev,	Orenburg State University, Orenburg, Russia

MIST-IV-1054	On the distribution of spacecraft in orbits	Georgy Egorychev, Tamara Shiryayeva, Anatoly Shlepkov, Konstantine Philippov, Irina Sabodakh, Yuri Ushakov, Artem Zlobin	Siberian federal university, Krasnoyarsk, Russia; Krasnoyarsk state agricultural university, Krasnoyarsk, Russia; Siberian journal of science and technology, Krasnoyarsk, Russia
MIST-IV-1055	Correction of autonomous underwater vehicle control laws	M A Smirnova, M N Smirnov	St. Petersburg State University, St. Petersburg, Russia
MIST-IV-1056	Efficiency of Forest Fire Detection in Siberia Based on the Results of Satellite Monitoring of Thermal Anomalies	A V Kholoptsev, R G Shubkin, I Yu Sergeev, A N Batur, S V Babenyshev	FSBEE HE Siberian Fire and Rescue Academy EMERCOM of Russia, Zheleznogorsk, Krasnoyarsk Krai, Russia; Sevastopol branch of Government Oceanography Institute, Sevastopol, Russia
MIST-IV-1057	Separation of Propeller and Piston Engine Noise Based on the Results of Light Propeller-Driven aircraft Tests under Static Condition	P A Moshkov, A A Yakovlev	Moscow Aviation Institute (National Research University), Moscow, Russia
MIST-IV-1058	Eye-tracking study on interaction of cadet-pilots with electronic flight instrument system	Alexander Volkov, Lidya Frolova, Sergey Kosachevsky, Dmitry Aidarkin, Zulfat Zabbarov	Ulyanovsk Civil Aviation Institute, Ulyanovsk; PJSC « Aeroflot» Pilot, Moscow, Russian Federation
MIST-IV-1059	Study of the dependence of an air jet shape on pressure in a laval nozzle	Iu S Prikhodko, A N Shishkov, K V Osintcev, Y S Bolkov,	South Ural State University; Moscow Polytechnic University

		A A Postyka, D S Valmukhametov, V K Petropavlovskaya	
MIST-IV-1060	Magnetodynamic pulse drive for soft robotics	Andrey Ya Minaev, Yuri V Korovkin	Mechanical Engineering Research Institute of the Russian Academy of Sciences, Moscow, RUSSIA
MIST-IV-1061	Simulation of the Hydrocracking Process to Produce Diesel Fuel in the Aspen HYSYS System	Ivan Nekrasov, Vadim Tynchenko, Vladimir Bukhtoyarov, Tatyana Panfilova, Aleksandr Sokolnikov, Aleksey Gorodov, Ilia Panfilov	Siberian Federal University; Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia
MIST-IV-1062	Simulation of a collisions of three atoms over the surface of a condensed phase	S A Zheltov, L V Pletnev, N N Chupiatov	Tver State University, Tver, Russia; Electromekhanika, Rzhev, Russia
MIST-IV-1063	Method of reducing fire hazard of technological process in the event of oil spillage based on mathematical models of neural network	A V Vytovtov, D S Korolev, A A Odnolko, D V Russkih, E A Russkih	Voronezh State Technical University, Voronezh; SFA of EMERCOM of Russia, Moscow, Russia
MIST-IV-1064	An Advanced Method to Test the Formability in Single Point Incremental Forming	Yaroslav Erisov, Sergei Surudin, Ilya Petrov, Aleksandr Kuzin	Samara National Research University; Samara Federal Research Center of Russian Academy of Sciences, Samara
MIST-IV-1065	Method to Prevent the Formation of Ignition Sources at Linear Facilities of the Oil and Gas Complex with the Use of Unmanned Aircraft Systems	A V Vytovtov, D S Korolev, A A Odnolko, D V Kargashilov, A A Gapeev	Voronezh State Technical University, Voronezh; SFA of EMERCOM of Russia, Moscow, Russia

MIST-IV-1066	Monitoring as the technological systems quality management system an element	E M Samoilova, M G Babenko, M V Vinogradov, T G Nasad, I N Yankin, O Yu Davidenko, L G Bokova and P V Malinin	Saratov State Technical University named after Yu.A. Gagarin, Saratov, Russia
MIST-IV-1067	Control To Reduce the Noise Level Of The Supersonic Aircraft Engine	F Golberg, O Gurevich	Moscow Aviation Institute (National Research University), Moscow, Russia
MIST-IV-1068	The Concept of a "Virtual Engine" In a Modern Control System Of GTE	F Golberg, O Gurevich, L Yanovskiy	Moscow Aviation Institute (National Research University), Moscow, Russia
MIST-IV-1069	Mathematical Modelling of Flow over the Single Hill	A Y Kurbanaliev, A B Turganbaeva, A K Kaleeva	Osh State University, Osh, Kyrgyzstan
MIST-IV-1070	Law of cotton mass movement in drying drum sections	A P Parpiev, B M Mardonov, M Akhmatov, N M Akhmatov	Tashkent Institute of Textile and Light Industry, Tashkent, Uzbekistan
MIST-IV-1071	Assessment of the Quality of the Source Material for the Production of Coil Springs of Machines and Mechanisms by the Method of Acoustic Emission	N A Bunina, S G Lopareva, A D Lopareva, R K Khusainov, E A Alekseeva, S A Meshcheryakov	St.Peterburg Engineering Academy, St. Petersburg, Russia Kurgan State Agricultural Academy by T. S. Maltsev, Kurgan, Russia Kazan State Agrarian University, Kazan, Russia Saint Petersburg State Forest Technical University named after S.M. Kirov, St. Petersburg, Russia

Section 2. Reliability and Data Protection in Automation Systems

MIST-IV-2001	The Formal Rules, The Algorithm And The Program For Functional Models Verification	E V Burlyaeva, S V Razlivinskaya, V S Boridko	MIREA - Russian Technological University, Moscow, Russia
MIST-IV-2002	Ensuring the Security of Using Virtualization to Protect Data on the Example of a Peer-to-Peer Decentralized Network TheOoL.net	Rostislav Sergeevich Oleshko	Samara State Technical University, Samara, Russia; Luxoft, Samara, Russia
MIST-IV-2003	Hardware-Software Complex Reliability Providing Method of a Real-Time System	Sergej N Efimov, Vitalij A Terskov, Anna A Malakhova, Svetlana A Yarkova, Leonid K Kashirskij	Siberian Federal University; Siberian State University of Science and Technology named after M. F. Reshetnev; Krasnoyarsk Institute of Railway Transport, branch of Irkutsk State University of Railway Engineering, Krasnoyarsk, Russia
MIST-IV-2004	Methods of Protection in Speaker Verification Systems	Michael M. Evsyukov, Michael M. Putyato, Alexander S. Makaryan	Kuban State Technological University, Krasnodar, Russia
MIST-IV-2005	Implementation of the $t/(n-1)$ decision-making algorithm by RTOS and FPGA tools	Mikhail Saramud, Vasiliy Losev, Margarita Karaseva	Reshetnev University, Krasnoyarsk, Russia; Siberian Federal University, Krasnoyarsk, Russia

MIST-IV-2006	Application of modular turbo codes in authentication systems	N K Chistousov, I A Kalmykov, D V Dukhovnyj, I D Efremenkov, N I Kalmykova	North Caucasus Federal University, Stavropol
MIST-IV-2007	Implementation of the Methodology Based on Functional Versions' Segmentation for Increasing Fault Tolerance of Software Systems	I V Kovalev, V V Losev, M V Saramud, N A Testoyedov, A S Lifar	Reshetnev Siberian State University of Science and Technology; Siberian Federal University; Krasnoyarsk State Agrarian University, Russian Federation, Krasnoyarsk; China Aviation Industry General Aircraft, China, Zhejiang; JSC Academician M.F. Reshetnev «ISS», Russian Federation, Zheleznogorsk
MIST-IV-2008	The Issue of Software Reliability in Program Code Cloning	E Lee, F Rabbi, H. Almashaqbeh, A. Aljarbouh, J. Ascencio, N.V. Bystrova	Broward College, US; Australian Computer Society, Australia; International Academy of Science and Technologies, Moscow, Russia; University of Central Asia, Kyrgyz Republic; Universidad César Vallejo, Perú; Minin State Pedagogical University of Nizhny Novgorod, Nizhny Novgorod, Russia
MIST-IV-2009	Development of a Centralized Intrusion Detection System Using Machine Learning	Alexander Rusev, Georgi Tsochev, Roumen Trifonov	Technical University of Sofia, Faculty of Computer Systems and Technologies, Bulgaria
MIST-IV-2010	Penalties and Computational Resources in NMR Water Content Analysis Parameter Identification with Differential Evolution	Ivan Ryzhikov, Ekaterina Nikolskaya Yrjö Hiltunen	Department of Environmental and Biological Sciences, University of Eastern Finland, Kuopio, Finland; Xamk Kuitulaboratorio, Savonlinna, Finland

Section 3. Cybernetics, Automation and Information Technologies

MIST-IV-3001	A neural network approach to assessing the significance of input parameters for predicting the dynamics of an organism under the conditions of the conclusions of cardiac diseases	S E Golovenkin, M G Dorrer, S Yu Nikulina, Yu V Orlova, E Yu Pelipeckaya, T D Vereshchagina	Professor V.F. Voyno-Yasenetsky Krasnoyarsk State Medical University, Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russian Federation.
MIST-IV-3002	Decision Support Systems with Artificial Intelligence Elements	Elena N Trofimets, Valery Ya Trofimets	Saint-Petersburg university of State fire service of EMERCOM of Russia, Saint-Petersburg, Russia; Saint-Petersburg mining university, Saint-Petersburg, Russia
MIST-IV-3003	Development of a fuzzy authentication system for the automated line devices of a distributed Internet of things using a hash-resistant algorithm	Alexander Zolkin, Timur Aygumov, Aleksey Losev, Elena Alexandrova	Povolzhskiy State University of Telecommunications and Informatics, Samara; Dagestan State Technical University, Makhachkala; Russian State Agrarian University - Moscow Timiryazev Agricultural Academy, Moscow; Orel State Agrarian University named after N.V. Parakhin, Orel, Russia
MIST-IV-3004	Real-time algorithms for accounting for dark currents in charge-coupled device of star sensors	A Zhukov, M Prokhorov, A Zakharov, A Biryukov, I Kartsan, M Lomaev	FGBNU "Expert and Analytical Center"; MIREA - Russian Technological University; Institute of Astronomy of the Russian Academy of Sciences; Joint Stock Company "Special Research of Moscow Power

MIST-IV-3005	Contribution of digital marketing channels on b2b electronic commerce market	G. Dudakov, A L Zolkin, T N Mozharova, V A Mironchuk, V A Dorzhdeeva	Engineering Institute"; Sternberg Astronomical Institute, Moscow State University, Moscow; Reshetnev Siberian State University of Science and Technology, Krasnoyarsk; Marine Hydrophysical Institute, Russian Academy of Sciences; Sevastopol State University, Russia
MIST-IV-3006	Simulation of traction electricity supply systems equipped with unbalance-to-balance transformers	Andrey Kryukov Aleksandr Cherepanov Ilia Avdienko	St. Petersburg State University, St. Petersburg; Povolzhskiy State University of Telecommunications and Informatics, Samara; Orel State University named after I.S. Turgenev, Orel; Kuban State Agrarian University named after I.T. Trubilin, Krasnodar; Volgograd State Technical University, Volgograd, Russia
MIST-IV-3007	Hybrid approach to synthesis of electromechanical block control system of mechatronic module	A I Gorkavyi, M A Gorkavyi, M A Melnichenko, A A Kuznetsov	Irkutsk State Transport University, Irkutsk
MIST-IV-3008	Taking into account the train schedule when modeling the electromagnetic effects of traction networks on pipelines	Andrey Kryukov Aleksandr Cherepanov Aleksandr Kryukov	Komsomolsk-na-Amure State University
			Irkutsk State Transport University, Irkutsk

MIST-IV-3009	Implementation of digitalization in the management and organization of the construction process	Artem S Subbotin, Svetlana E Zykova, Evgeny R Fedotov	Moscow State University of Civil Engineering (MGSU) National Research University
MIST-IV-3010	Optimal automatic control of NOx emissions from combustion chambers of gas turbine aeroengine based on the bellman method	Tatiana A Kuznetsova, Anton A Naborshchikov	Perm National Research Polytechnic University
MIST-IV-3011	Methodology for the development of a distributed information system	Anton Y Unger	MIREA - Russian Technological University, Moscow, Russia
MIST-IV-3012	Modeling and optimization of information resources in aerospace systems	I Ya Lvovich, Ya E Lvovich, A P Preobrazhenskiy, Yu P Preobrazhenskiy	Voronezh institute of high technologies, Voronezh state technical university
MIST-IV-3014	Development of a chatbot for a car service	Olga Rubleva, Elena Emel'yanova, Tatiana Mozharova, Natalya Polshakova and Nadezhda Gavrilovskaya	Department of Foreign Languages of Non-Linguistic Training Programs, Vyatka State University, Kirov, Russia; Department of Psychology, Institute of Pedagogy and Psychology, Vyatka State University, Kirov, Russia; Department of Algebra and Mathematical Methods in Economy, Orel State University named after I. S. Turgenev, Orel, Russia; Department of Information Technology and Mathematics, Federal State Budgetary Educational Establishment of Higher Education, Orel State Agrarian University named after N.V.

			Parakhin, Orel, Russia; Department of Computer Aided Design and Engineering Calculation, Russian State Agrarian University–Moscow Timiryazev Agricultural Academy, Moscow, Russia
MIST-IV-3015	Formation of a Training Sample for Machine Learning	Filyuza Abdrafikova, Elena Muravyova, Marsel' Sharipov	Ufa State Petroleum Technological University, Branch in Sterlitamak, Sterlitamak
MIST-IV-3016	Use of Geoinformation Technologies for Monitoring and Evaluating the Consequences of Emergencies	D V Andreev	M. K. Ammosov North-Eastern Federal University, Yakutsk, Republic of Sakha (Yakutia), Russia
MIST-IV-3017	Product Data Management System as an Element of Information Support of the Standardization Service of a High-Tech Industrial Enterprise	Kirill I Porsev, Pavel I Abramov	Yaroslavl State Technical University, Yaroslavl, Russia; Scientific and Production Association «Orion», Moscow, Russia
MIST-IV-3018	Dichotomous division logic	I Deshko, V Tsvetkov	Russian Technological University (RTU MSIREEA), Moscow, Russia; AO "Research and Design Institute of Informatization, Automation and Communication in Railway Transport" (AO "SRIAC"), Moscow, Russia

MIST-IV-3019	Prediction of the productivity coefficient of wells using machine learning in the Matlab program	Marsel' Sharipov, Filyuza Abdrafikova, Elena Muravyova	Ufa State Petroleum Technological University, Branch in Sterlitamak, Sterlitamak
MIST-IV-3020	Improving the Efficiency of Recognition of Micro-Objects based on the Use of Redundant Information Structures of Images	Isroil I Jumanov, Rustam A Safarov	Samarkand state university
MIST-IV-3021	Application of evolutionary algorithms for the identification of the first-order differential equations systems	Tatiana Karaseva, Eugene Semenkin	Reshetnev Siberian State University of Science and Technology; Siberian Federal University, Krasnoyarsk, Russian Federation
MIST-IV-3022	Model of digital control system by complex multi-loop objects	Eugene V Larkin, Aleksandr N Privalov, Alexey V Bogomolov, T A Akimenko	Tula State University, Tula, Russia, State Lev Tolstoy Pedagogical University, Tula, Russia
MIST-IV-3023	Biology-inspired optimization algorithms applied to intelligent input weights selection of an extreme learning machine in regression problems	Liliya A Demidova, Artyom V Gorchakov	MIREA – Russian Technological University, Moscow, Russia
MIST-IV-3024	Controlling non-sinusoidal modes of systems of railway electric power supply based on active harmonic filters	A P Kutsyi, A V Kryukov, A D Stepanov, A V Cherepanov	Irkutsk State Transport University, Irkutsk, Russia; Irkutsk National Research Technical University, Irkutsk, Russia

MIST-IV-3025	Assessment of Project Team Efficiency at a Research and Production Enterprise	Sergey P Orlov, Sergey V Susarev, Roman A Uchaikin, Anastasia E Yakovleva	Samara State Technical University, Samara, Russian Federation
MIST-IV-3026	Model of Shaft-Boring Machine Executive Mechanisms Digital Control	Eugene V Larkin, Aleksandr N Privalov, Van S Nguyen	Tula State University, Tula, Russia, State Lev Tolstoy Pedagogical University, Tula, Russia, Military Weapon Institute, Vietnam
MIST-IV-3027	Software Package for Synthetic Data Generation of Composite Materials	Yana Kraeva, Kseniia Nikolskaia, Alexandra Shabley, Vitalii Varkentin	South Ural State University (national research university), Chelyabinsk, Russia
MIST-IV-3028	Human Voice Emotion Recognition Using Machine Learning	Evgenii Shaihetdinov, Vitalii Varkentin, Yana Kraeva	South Ural State University (national research university), Chelyabinsk, Russia
MIST-IV-3029	Determination of the Homogeneity of a Set of Elements on the Basis of the Quality Characteristics of the Division of a Set into Groups	S M Golovanov, V L Kazakovtsev, G Sh Shkaberina	TTC NPO-PM, Zheleznogorsk; Reshetnev Siberian State University of Science and Technology, Krasnoyarsk; ITMO University, St. Petersburg
MIST-IV-3030	Online Clustering Algorithm with a Greedy Agglomerative Heuristic Procedure and Special Distance Measures	G Shkaberina, L Verenev, E Tovbis, L Kazakovtsev	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk; Siberian Federal University, Krasnoyarsk
MIST-IV-3031	Self-Check System of Heuristic Algorithms as a "New Moral" of Intelligent Systems	O V Tikhanychev	Company group "Technoserv", Moscow, Russia

MIST-IV-3032	A $(1+\lambda)$ Evolutionary Algorithm with the Greedy Agglomerative Mutation for p-Median Problems	L A Kazakovtsev, I P Rozhnov, V L Kazakovtsev	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk; Siberian Federal University, Krasnoyarsk; ITMO University, Saint Petersburg
MIST-IV-3033	Information Processing Using the Kalman Filter	Vladimir Telezhkin, Behruz Saidov, Parviz Shonazarov, Shohin Safarov, Suhaylii Badridin, Farzod Muzafa	South Ural State University (National Research University), Chelyabinsk, Russia; Tajik Technical University named after M.S. Osimi, Dushanbe, Tajikistan
MIST-IV-3034	Geographic information service	S Shaytura, L Sumzina, A Maksimov, S Khachaturova, I Poznyak, M Knyazeva, A Minitaeva	Russian University of Transport (MIIT), Moscow, Russia; Russian State University of Tourism and Service, Cherkizovo, Russia; Plekhanov Russian University of Economics, Moscow, Russia; Moscow Automobile and Highway State Technical University (MADI), Moscow, Russia; Moscow State University of Technology and Management. K.G. Razumovsky (First Cossack University), Moscow, Russia; Moscow State Technical University named after N.E. Bauman, Moscow, Russia
MIST-IV-3035	Development of the Information system of social support of the employees of the enterprise	Irina Gorbachenko, Evgeniy Aleksandrov, Valentin Sorokin, Stanislav Yakovlev, Elena Timonina	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk

MIST-IV-3036	Study on the Efficiency of Methods for Selecting a Splitting Attribute for Constructing Decision Trees	S A Mitrofanov, E S Semenkin	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russian Federation
MIST-IV-3037	Improving the quality of power supply systems for critical facilities	Vladimir A Smirnov, Jurij F Podoplekin, Aleksandr N Rudakov and Marina V Aristova	Joint Stock Company «Concern «Granit-Electron»; Saint Petersburg State University of Architecture and Civil Engineering, Saint Petersburg, Russia
MIST-IV-3038	Advanced Fuzzy Logic Control System Electrically Driven with Dual-Zone Speed Regulation	Sergey Cherniy, Alina Buzikaeva, Ruslan Bazhenov, Elena Lavrushina, Tatiana Gorbunova and Irina Ledovskikh	Komsomolsk-on-Amur, Komsomolsk-on-Amur; Sholom-Aleichem Priamursky State University, Birobidzhan; Vladivostok State University of Economics and Service, Vladivostok; Moscow State University of Civil Engineering, Moscow; Pacific National University, Khabarovsk, Russia
MIST-IV-3039	Artificial intelligence as an object of standardization	N M Kuprikov	Moscow Aviation Institute (National Research University) Moscow, Russia
MIST-IV-3040	Organizational Structures Synthesis. Problems and Solutions	V N Tsygichko	Federal Research Center Computer Sciences and Control of Russian Academy of Sciences, Moscow, Russia
MIST-IV-3041	Obtaining an approximate solution for invariant curves	V V Cherdyntsev	MIREA – Russian Technological University, Moscow, Russia

MIST-IV-3042	Verbality and Creolization in the Hypertext Space Professional IT-Blogs	N G Komissarova, A V Lebedev, N A Makarova, Iu S Pinkovetskaia	N. P. Ogarev Mordovia State University, Saransk, Russia; "Maertech" limited company, Saransk, Russia; Ulyanovsk State University, Ulyanovsk, Russia
MIST-IV-3043	Retrospective and perspective for modification of digital methods for discrete Fourier transform	Adeliya Burova, Timur Usatenko	Moscow Aviation Institute (National Research University), Moscow, Russia
MIST-IV-3044	Spatial analysis of visual models	I P Deshko, V Ya Tsvetkov	Russian Technological University (RTU MIREA). Moscow, Russia; AO "Research and Design Institute of Informatization, Automation and Communication in Railway Transport" (AO "RDIAC"), Moscow, Russia
MIST-IV-3045	Improving Complex Indicators of Local Area Networks Reliability	Sergej N Efimov, Vitalij A Terskov, Irina YU Sakash, Aleksej A Tyapin, Viktoriya S Kokorina	Siberian Federal University; Siberian State University of Science and Technology named after M. F. Reshetnev; Krasnoyarsk State Agrarian University, Krasnoyarsk, Russia
MIST-IV-3046	Using Edge Service for Secure Information Systems Availability	Nina I Romancheva	Federal State Budgetary Educational Institution of Higher Professional Education "Moscow State Technical University of Civil Aviation (MSTU CA), Russia, Moscow
MIST-IV-3047	Improving the efficiency of 5G systems used in information and	I A Kalmykov, D V Yurdanov, M I Kalmykov, D A Zhukov, E A Voloshin	North-Caucasus Federal University, Stavropol, Russia

	telemetry systems of air transport, based on parallel filtering		
MIST-IV-3048	The use of the digital twin of a person in the distribution of tasks in production	Mikhail Saramud, Maksim Kubrikov, Anna Kubrikova, Evgeniy Talay	Reshetnev University, Krasnoyarsk, Russia; Siberian Federal University, Krasnoyarsk, Russia
MIST-IV-3049	Automated Identification and Removal of Electroencephalogram Artifacts with Features Based on the Hurst Exponent	L D Egorova, N L Rezova, L A Kazakovtsev	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk
MIST-IV-3050	Modifications of genetic, biogeography and particle swarm algorithms for solving multiextremal optimization problems	Pavel S Sorokovikov, Alexander Yu Gornov	Matrosov Institute for System Dynamics and Control Theory of SB RAS, Irkutsk, Russia
MIST-IV-3051	A stochastic model of information channels with random loads and random intensities: the pseudo-Poisson type random processes approach	O V Rusakov, Yu V Yakubovic, M B Laskin	Saint-Petersburg State University, Saint-Petersburg, Russia; Saint-Petersburg Federal Research Center Russian Academy of Science, Saint-Petersburg, Russia
MIST-IV-3052	Control Algorithm for the Automatic Tool Calibration System for a Robotic Machining Complex	Sergei Sukhorukov, Markel Melnichenko, Anton Ovsyannikov, Ruslan Bazhenov, Olga Chuyko, Elena Gafiatulina, Igor Borodin	Komsomolsk-on-Amur, Komsomolsk-on-Amur; Sholom-Aleichem Priamursky State University, Birobidzhan; Khabarovsk State University of Economics and Law, Khabarovsk; Far Eastern State Transport University, Khabarovsk; Primorskaya State Academy of Agriculture, Russia

MIST-IV-3053	Comprehensive Review of State-Of-The-Art Intelligent Methods for Videosequences Analysis	Daria Rogova, Sergei Kurashkin, Vadim Tynchenko, Yuriy Seregin, Andrey Privalov, Vladislav Kukartsev	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia; Siberian Federal University, Krasnoyarsk, Russia; Bauman Moscow State Technical University, Moscow, Russia
MIST-IV-3054	A New Neuro-Fuzzy Approach Based on Modified AGSK Algorithm for Classification Problems	Sh Akhmedova, V Stanovov, K Ito, Y Mizuno, F Ohnishi, Y Kamiya	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russian Federation; Aichi Prefectural University, Nagakute, Japan
MIST-IV-3055	Applying a housing construction model to improve a small town demographic dynamics	S Kerimkhulle, A Mukhanova, M Kantureyeva, M Koishybaeva, Gulmira Azievae	L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan
MIST-IV-3056	Virtualization technologies and platforms: comparative overview and updated performance tests	I Aliev, S Gazul, A Bobova	Saint Petersburg State University of Economics, Saint Petersburg, Russian Federation
MIST-IV-3057	A Novel Metaheuristic for Solving LSGO problems	Aleksei Vakhnin, Evgenii Sopov	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russian Federation; Aichi Prefectural University, Nagakute, Japan
MIST-IV-3059	Development Model Units of Anthropomorphic Robot Based on Experimental Data	A Belyi	Bauman Moscow State Technical University, Moscow, Russia; Financial University under the Government of the Russian Federation, Moscow, Russia

MIST-IV-3060	The Application of the Linear-Square Optimization Device in the Problems of the Coordinating Control	A B Filimonov, N B Filimonov	MIREA - Russian Technological University, Moscow, Russia; Moscow Aviation Institute, Moscow, Russia; Trapeznikov Institute of Control Problems, RAS, Moscow, Russia; Lomonosov Moscow State University, Moscow, Russia
MIST-IV-3061	Intelligent system for forecasting the effectiveness of space services in solving economic problems	A V Yudin, P Yu Grosheva, M M Madumarov, R Ben Hmida	Peoples Friendship University of Russia (RUDN University)
MIST-IV-3062	Multidimensional Spatial Transformation System For Streaming Media Encoding	O V Nepomnyashchy, I V Kochan, M S Medvedev, I S Shishkina	Siberian Federal University, Krasnoyarsk, Russia
MIST-IV-3063	Statistical Evaluation of Semi-Structured Binary Sequences of Quality Indicators in Dental Diagnostics	V F Korniyushko, A A Remizova, I I Rayushkin, A S Kuznetsov, N O Remizov	MIREA - Russian Technological University, Moscow, Russia; North Ossetian State Medical Academy, Vladikavkaz, Russia; First Moscow State Medical University named after I.M. Sechenov, Moscow, Russia; Moscow State University of Medicine and Dentistry. A.I. Evdokimov, Moscow, Russia
MIST-IV-3064	Bioinspired Algorithm for Selecting Semantically Significant Features in Linguistic Information Processing Tasks	S Rodzin, V Bova, Yu Kravchenko, L Rodzina	Southern Federal University, Rostov-on-Don, Russia

MIST-IV-3065	Induction Soldering Experimental Data Acquisition System	Anton Mikhalev, Vadim Tynchenko, Sergei Kurashkin, Yuriy Seregin, Vladislav Kukartsev and Ilia Panfilov	Siberian Federal University; Reshetnev Siberian State University of Science and Technology, Krasnoyarsk; Bauman Moscow State Technical University, Moscow, Russia
MIST-IV-3066	The Prospects of New Invariants Creating in Biocybernetics	E V Orlov, O E Filatova, V A Galkin, L S Chempalova	Samara State Medical University, Samara, Russia: Federal research center for scientific research institute of system research of the Russian Academy of Sciences, Special division in Surgut, Surgut, Russia: Samara State Technical University, Samara, Russia
MIST-IV-3067	Segmentation of Data Samples in the Analysis of the Security State of Internet of Things Devices	M E Sukhoparov, I A Sikarev T M Tatarnikova, I S Lebedev, A A Butsanets	Russian State Hydrometeorological University (RSHU), Saint-Petersburg, Russia; St. Petersburg Federal Research Centre of the Russian Academy of Sciences, St. Petersburg, Russia; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia
MIST-IV-3068	Edge Computing Technology Engineering Analysis	Sergei Kovalenko, Larisa Kazantseva, Dmitry Suprunenko	The Federal State Budgetary Educational Institution of Higher Education "MIREA - the Russian Technological University", Moscow, Russia
MIST-IV-3069	Neural Network Modeling of the Technological Process	N A Koval	Moscow Aviation Institute (National Research University),

Section 4. Fundamental problems of information security in the context of digital transformation

MIST-IV-4001	Applying adaptive algorithms for solving computer threats using graph structures	Evgeniy E Eliseev, Mihail E Burlakov	Samara National Research University, Samara, Russia
MIST-IV-4002	Secure Serverless Internet (TheOoL.net)	Alexey V Nenashev	Samara State Technical University, Samara, Russia;
MIST-IV-4003	Modeling the process of air separation of cotton particles in roll box of the seed-cotton separators	Sahobiddin Sultanov, Anvar Makhkamov, Olimjon Sarimsakov	Namangan Engineering Technological Institute, Namangan, Uzbekistan
MIST-IV-4004	Organizational bases for ensuring information security of the organization in the conditions of digitalization of the economy	M S Agafonova, T V Shchegoleva, N L Volodina, N N Netyaga, A A Osipov	Voronezh State Technical University, Russia
MIST-IV-4005	Lunar Cycles, Geomagnetic Activity and Emergency Medical Ambulance Calls	B Z Belashev	Karelian research center of Russian academy of sciences, Petrozavodsk, Russia
MIST-IV-4006	Multicriterial genetic algorithm for pattern generation as a stage of logical analysis of data	Igor Masich, Margarita Kulachenko, Elena Tovbis, Alexey Popov	Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia; Siberian Federal University, Krasnoyarsk, Russia

MIST-IV-4007	Whatsapp messenger user data security analysis on Android	M A Karmanov, M M Putyato, A S Makaryan	Department of computer technologies and information security, Kuban state technological university, Krasnodar, Russia
MIST-IV-4008	Ways of forming and representing information elements of combinations of NLB (n, k)-codes when building a data blocks chain	Andrey I Terentyev	Moscow State Technical University of Civil Aviation, Moscow, Russia
MIST-IV-4009	Decision Support Models in the Development of Systems for the Protection of Informatization Objects	Vladimir V Baranov, Elena A Maksimova, Elnur R Aliev	M.I. Platov South Russian State Polytechnic University, Novochoerkassk; Russian Technological University MIREA, Moscow, Russia; M.I. Platov South Russian State Polytechnic University, Novochoerkassk.
MIST-IV-4011	Energy Distribution Computation for Induction Soldered Construction Elements	Vadim S Tynchenko, Yadviga A Tynchenko, Daria V Rogova, Anna A Leonteva, Yuriy N Seregin, Aleksy Bocharov	Siberian Federal University, Krasnoyarsk, Russian Federation; Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russian Federation; Bauman Moscow State Technical University, Moscow, Russian Federation

Section 5. Energy, Chemical and Ecological Engineering

MIST-IV-5001	Application of YOLOv4 object detection models in biomechanics problems of human kinematics	A E Alekhina, M G Dorrer, M G Sadovsky, A A Feller	Reshetnev Siberian State University of Science and Technology, Federal Siberian Research Clinical Center of Federal Medical Biological Agency, Institute of Computational Modelling of SB RAS, Krasnoyarsk, Russian Federation
MIST-IV-5002	Forecasting the State of the Environment Based on the Assessment of Technogenic Risk	O E Bezborodova, O N Bodin, D V Martynov	Penza State University, Penza, Russian Federation, Penza State Technological University, Penza, Russian Federation
MIST-IV-5003	A Mathematical Model of the Dynamics of Soil Humidity and Underground Waters	Akmaljon Abdullayev, Nigora Safarbayeva, Salohiddin Shamsitdinov	Tashkent Institute of Irrigation and Agricultural Mechanization Engineers; Tashkent State Transport University, Tashkent, Uzbekistan
MIST-IV-5004	Influence Of Nonparabolicity Of The Dispersion Law And Temperature On The Energy Density Of States In Semiconductor Nanowires	G Gulyamov, A B Davlatov, D R Urinboev	Namangan Engineering Construction Institute, Namangan, Uzbekistan; Physical-Technical Institute, Uzbek Academy of Sciences, Tashkent, Uzbekistan
MIST-IV-5006	Ecological Aspects of Pharmaceutical Biotechnology	Sergey V Akchurin, Ekaterina S Krasnikova, Georgy P Dulger, Irina V Akchurina, Alexander V Krasnikov, Evgenia S Latynina, Vladislav S Bychkov	Russian State Agrarian University - Moscow Timiryazev Agricultural Academy, Moscow; Saratov State Vavilov Agrarian University, Saratov; Michurinsk State Agrarian University, Michurinsk, Russia

MIST-IV-5008	Digital vector of work environment inclusion in the energy sector: information, indicators and data analysis	Natalya Parushina, Natalya Lytneva, Galina Astratova, Olga Rudakova, Tatyana Fedorova	Russian Presidential Academy of National Economy and Public Administration, RANEPА, Orel, Russia; State University of Economics and Trade, Orel, Russia; Ural Federal University named after the first President of Russia B. N. Yeltsin, Yekaterinburg, Russia; Ural Juridical Institute of MIA of Russia, Yekaterinburg, Russia; Oryol State Institute of Culture, Orel, Russia; Financial University Under The Government Of The Russian Federation, Orel, Russia
MIST-IV-5010	The effect of a heated electron on the vax of a tunnel diode	G Gulyamov, M G Dadamirzayev, K M Uktamova, B Z Mislidinov	Namangan engineering – construction institute, Namangan; Research Institute of physics of semiconductors and microelectronics, Tashkent, Uzbekistan
MIST-IV-5011	Changes in diodes with a p-n-transition under the influence of microwave radiation	Gafur Gulyamov, Gulnoza Majidova, Feruza Muxitdinova, Saodat Madumarova	Namangan engineering – construction institute, Namangan, Uzbekistan
MIST-IV-5012	Analysis and improvement of the management system on the example of the organization of the aerospace industry	Vladimir V. Kuleshov, Alexander L. Zolkin, Timur G. Aygumov, Aleksey S. Bityutskiy, Vladimir N. Malikov	Omsk State Technical University, Omsk; Povolzhskiy State University of Telecommunications and Informatics, Samara; Dagestan State Technical University, Makhachkala; "Invent Technology" LLP, Almaty, Kazakhstan; Altai State University, Barnaul, Russia

MIST-IV-5013	Internal factors of environmental security for Russia	V B Vlasov, V Ya Mishchenko, E P Gorbaneva, D I Emelyanov, L P Myshovskaya, N A Ponyavin, E V Ovchinnikova	Voronezh State Technical University. Voronezh, Russia
MIST-IV-5014	Technology Of Layer-By-Layer Milling Of Soils During Their Processing For Forest Crops And Tools For Its Implementation	S N Orlovskiy, D I Nuretdinov, S V Navalikhin, N V Bolshakova, M R Mirzoeva	Krasnoyarsk State Agrarian University, Krasnoyarsk, Russia Kazan Federal University, Kazan, Russia Saint Petersburg State Forestry University named after S.M. Kirov, St. Petersburg, Russia Energy Project Engineering, St. Petersburg, Russia
MIST-IV-5015	Influence of Cavitation Phenomena on the Impedance of a Liquid Medium Limited by a Volume of Finite Dimensions	V Khmelev, R Barsukov, R Golykh, A Barsukov	Biysk Technological Institute (branch) of the Altay State Technical University, Biysk, Russia
MIST-IV-5016	Influence of deformation and light on the diffusion capacity and differential resistance of the p-n junction of a strong electromagnetic field	G Gulyamov, M G Dadamirzayev, M O Qosimova, S R Boydedayev	Namangan engineering – construction institute. Namangan, Uzbekistan
MIST-IV-5017	Reduction of flammable parameters of technological processes during the circulation of petroleum products modified with carbon nanostructures in	Alexandra Miftakhutdinova, Igor Skripnik, Tatiana Kaverzneva, Nina Rumyantseva, Alexey Basharichev, Valery Balabanov	Federal State Budgetary Educational Institution of Higher Education of St. Petersburg University of the State Fire Service EMERCOM of Russia; Federal State Autonomous Educational Institution of Higher Education "Peter the Great St. Petersburg Polytechnic University";

	conditions of electrophysical action		Federal State Budgetary Federal State Budgetary Educational Institution of Higher Education of St. Petersburg University of the State Fire Service EMERCOM of Russia, St. Petersburg, Russia
MIST-IV-5020	Development of Calculation Methods and Optimization of Working Processes of Heat Engines	Tamara Salova, Peter Lekomtsev, Vitaly Likhanov, Oleg Lopatin, Evgeny Belov	Military Institute (Naval Polytechnic) Naval Academy, Saint-Petersburg, Russian Federation; Chuvash State Agrarian University, Cheboksary, Russian Federation; Vyatka State Agrotechnological University, Kirov, Russian Federation
MIST-IV-5022	Predicting octane number of aromatic hydrocarbons considering energetic and structure topological descriptors	O S Koledin, M Y Dolomatov, E A Kovaleva, R A Fedina, S A Arslanbekova, M R Valeev	Ufa State Petroleum Technological University, Ufa, Russia; Bashkir State University, Ufa, Russia; Bashkir State Agrarian University, Ufa, Russia
MIST-IV-5023	Calculation and Instrumentation Method of Assessment of Radioactive Nitrogen ^{16}N Leaks in Steam Generators Applied at KLT-40 Type Nuclear Reactors	A P Elokhin, S N Fedorchenko	NRNU MEPhI, Moscow, Russia; JSC "SNIIP", Moscow, Russia
MIST-IV-5024	Remote laser detection of propane leaks	Mikhail L Belov, Kristina S Titarenko, Yuri V Fedotov, Victor A Gorodnichev	Bauman Moscow State Technical University (BMSTU) Moscow, Russia

MIST-IV-5025	Analysis of Cyclicity of Geophysical Monitoring Data	B Z Belashev	Karelian research center of Russian academy of sciences, Petrozavodsk, Russia
MIST-IV-5026	Development of effective construction and selection of material for prophylactic footwear for patients with diabetes	M O Mukhammedova, A Djuraev, L P Uzakova, M A Mansurova	Bukhara Engineering Technological Institute, Bukhara, Tashkent Institute of Textile and Light Industry, Tashkent, Uzbekistan
MIST-IV-5027	Application of Simplex-Lattice Scheffe Plans for the Joint use of Various Alternative Fuels in Tractor Diesels	A G Terentiev, N N Pushkarenko, O P Lopatin, V A Likhanov	Chuvash State Agrarian University, Cheboksary, Russian Federation, Vyatka State Agrotechnological University, Kirov, Russian Federation
MIST-IV-5028	Investigation of the Accumulation Process of Municipal Solid Waste in Trade Facilities of the Stationary Retail Network	Menzelintseva N V, Vlasova O S, Karapuzova N Yu, Zhirkova O B, Statyukha I M	Volgograd State Technical University
MIST-IV-5029	Structural and parametric analysis of geometric shapes and design solutions "Wind-solar generator of electrical energy"	M U Kuprikov, B S Scherbakov, Tatiana I. Mirolubova	Moscow Aviation Institute (National Research University) Moscow, Russia
MIST-IV-5030	Process Monitoring Of Devil Machine Electric Engine In Cotton Primary Processing Enterprises	Erkin Sharibaev Olimjon Sarimsakov, Raximjon Sharifbaev	Namangan Engineering Technological Institute, Namangan, Uzbekistan

MIST-IV-5031	Methodology of Standards Determining for Accumulation of Municipal Solid Waste at the Facilities of Stationary Retail Chains	Menzelintseva N V, Karapuzova N Yu, Vlasova O S, Statyukha I M, Zhirkova O B	Volgograd State Technical University
MIST-IV-5032	Selection of geometric shapes and structural design studies "Wind and solar power generator"	M U Kuprikov, Boris S. Scherbakov, Olga A. Alipova	Moscow Aviation Institute (National Research University) Moscow, Russia
MIST-IV-5033	The use of alcohols in transport	S A Ovchukova, T V Sharonova, V A Likhanov, O P Lopatin	Chuvash State Agrarian University, Cheboksary, Russian Federation, Vyatka State Agrotechnological University, Kirov, Russian Federation
MIST-IV-5034	Identification and tracking of seismic waves related to breaks in sedimentation by use of frequency filtration	T R Ahmadov, L Aliyarzade	Azerbaijan State Oil and Industry University, Baku, Azerbaijan
MIST-IV-5035	Determination of Soot Formation parameters in a Gasdiesel Cylinder	G S Yunusov, P A Smirnov, O P Lopatin	Chuvash State Agrarian University, Cheboksary, Russian Federation, Vyatka State Agrotechnological University, Kirov, Russian Federation
MIST-IV-5036	Perfection of a Universal Model for Clarification of the Number of Carbon Particles Arising from Oxidative Reactions in Diesel	A V Rossokhin, T Y Salova, V A Likhanov, G M Mikheev, A G Sveshnikov	Vyatka State Agrotechnological University, Kirov, Russian Federation; Military Institute (Naval Polytechnic) Naval Academy, Saint-Petersburg, Russian Federation; Chuvash State Agrarian University, Cheboksary, Russian Federation

MIST-IV-5037	Simulation of Induced Voltages Generated by the "Wire-Earth" Power Lines	N Byakova, A Kryukov, T Nguen, A Cherepanov	Angarsk State Technical University, Angarsk, Russia; Irkutsk State Transport University, Irkutsk, Russia; Irkutsk National Research Technical University, Irkutsk, Russia
MIST-IV-5038	Activation of Regeneration Processes of Catalytic Converter Blocks of Diesel Engines	A A Melbert, N Ch Hung, A V Mashensky, I A Teterina, S G Lopareva	Polzunov Altai State Technical University, Barnaul, Altai region, Russia Siberian State Automobile and Highway University (SibADI), Omsk, Russia Kurgan State Agricultural Academy by T. S. Maltsev, Kurgan, Russia
MIST-IV-5039	Neural network technologies in industrial ecology	G V Gazya, V V Eskov, T V Gavrilenko	Federal Research Center Scientific Research Institute for System Research of the Russian Academy of Sciences, Separate subdivision "FSC NIISI RAS" in Surgut, Surgut, Russia; Surgut State University, Surgut, Russia
MIST-IV-5041	Numerical Simulation of Transient Heat Transfer of a Catalyst Substrate	A S Blinov, N S Malastowski, L L Myagkov	Bauman Moscow State Technical University, Moscow, Russia
MIST-IV-5042	Two-dimensional mathematical model development for the pollutants' distribution in a river	L V Illarionova, S A Pogorelov, T V Kozhevnikova	Computing Center of the Far Eastern Branch of the Russian Academy of Sciences, Khabarovsk, Russia
MIST-IV-5043	Technical Possibilities of Creating Thermal Fields of Various Configurations Using	V N Makarov, N A Boos	MIREA - Russian Technological University, Moscow, Russia

Bipolar Multi-Electrode Systems

MIST-IV-5044	Analysis of digital filters for preprocessing biomedical signals from ECG apparatus	V M Goryaev, E O Uchurova, E O Basangova, D B Bembitov, A P Miloshenko	Kalmyk State University, Elista, Russia
MIST-IV-5047	Economic and Biological Features of a New «Povolzhsky» Type of the Edilbay Sheep Breed	Marina Ivanovna Slozhenkina, Ivan Fedorovich Gorlov, Natalia Ivanovna Mosolova, Elena Yurievna Anisimova, Sofya Alexandrovna Knyazeva, Alyona Olegovna Reshetnikova	Volga Region Research Institute of Manufacture and Processing of Meat-And-Milk Production, Volgograd, Russian Federation; Volgograd State Technical University, Volgograd, Russian Federation; Volgograd State University, Volgograd, Russian Federation
MIST-IV-5048	Information and analytical substantiation of ground-level gas contamination of aviation profile objects	A V Zvyagintseva, L A Mezhova, N V Mozgovoi, A L Letin, V A Inpushkin	Voronezh State Technical University, Voronezh, Russia; Federal State Budgetary Educational Institution of Higher Education, Voronezh State Pedagogical University, Russia
MIST-IV-5049	Analysis of the Production of Building Materials (on the Example of Yakutia)	D. V. Andreev	Federal State Autonomous Educational Institution of Higher Education "M. K. Ammosov North-Eastern Federal University", Yakutsk, Republic of Sakha (Yakutia), Russia
MIST-IV-5050	Improving the Efficiency of Broiler Meat Production and Reducing the Load on the Ecosystem by Optimizing the	Marina Slozhenkina, Ivan Gorlov, Saule Kurmashevaa), Evgeniy Tarasov, Mariya Frolova, Zoya Komarova, Alexander Mosolov	Volga Region Research Institute of Manufacture and Processing of Meat-and-Milk Production, Volgograd, Russia

	Intestinal Microbiota of Poultry		
MIST-IV-5051	State Mechanisms for the Management of Agro-Technologies of Sustainable Territories	N Yu Moroz, I S Larionova, D A Kurazova	Kuban State Agrarian University named after I.T. Trubilin, Krasnodar, Russia; Moscow State Academy of Veterinary Medicine and Biotechnology - MVA named after K.I. Skryabin, Moscow, Russia; Kadyrov Chechen State University, Grozny, Russia
MIST-IV-5052	Economic and Legal Aspects of the Protection of Natural Ecosystems	N Yu Moroz, N Platonovskiy, Yu A Kapustina, G V Fedotova, E R Orlova, G V Tsebekova, V V Basanov	Kuban State Agrarian University named after I.T. Trubilin, Krasnodar, Russia; Russian State Agrarian University – Moscow Timiryazev Agricultural Academy, Moscow, Russia; Ural State Forest Engineering University, Yekaterinburg, Russia; Volga Region Research Institute of Manufacture and Processing of Meat-And-Milk Production, Volgograd, Russia; Plekhanov Russian University of Economics, Moscow, Russia; Federal Research Center «Informatics and Management», Moscow, Russia; Kalmyk State University named after B.B. Gorodovikova, Russia
MIST-IV-5053	An Innovative Approach to Creating a Specialized Meat Product for Sports Nutrition	V N Khramova, A M Pimenova, Ya I Khramova, K A Lubchinsky, R R Sanzhapov, Yu D Grebennikova, R Kh Kudaev	Federal State Budgetary Educational Establishment of Higher Education «Volgograd State Technical University», Volgograd, Russian Federation; Volga Region Research Institute of Manufacture and Processing of Meat-And-Milk

MIST-IV-5054	The Availability of Nutritious Food as a National Security Factor	S V Solodova, S Yu Maksimova, E B Murzageldieva, A Sh Khanchadarova, S N Alborieva	Production, Russian Federation; Federal State Budgetary Educational Institution of Higher Education «Kabardino-Balkarian State Agricultural University named after V.M. Kokov», Nalchik, Russian Federation
MIST-IV-5055	Development of Environmental Safety Complex-Action Reagents Based on Vegetable Oils for Opening Productive Formations	Gulnaz Gaimaletdinova, Inna Ozden	Volgograd State University, Volgograd, Russia; Dagestan State Agrarian University, Republic of Dagestan, Russia; Dagestan State University of National Economy, Republic of Dagestan, Makhachkala, Russia
MIST-IV-5056	Improvement of Fire Risk Calculation Method for Linear Part of Main Pipeline	Denis Vasilyev, Inna Ozden	FSBEI "Ufa State Petroleum Technical University", Ufa, Russian Federation
MIST-IV-5057	The State and Prospects of the Development of Animal Husbandry in the South of Russia Based on the Modern Molecular Genetic Technologies	E Y Anisimova, I F Gorlov, N I Mosolova, Y D Danilov, E V Karpenko, O A Knyazhechenko	Ufa State Petroleum Technical University, Ufa, Russia
			Volga Region Research Institute of Manufacture and Processing of Meat-And-Milk Production, Volgograd, Russian Federation; Volgograd State Technical University, Volgograd, Russian Federation; Volgograd State University, Volgograd, Russian Federation

Section 6. Arctic: Marine Transportation Challenges – 2021

MIST-IV-6001	A Concept for Onboard Risk-Based Information System to Ensure the Safety of Ship Operation in Ice Conditions	Vladimir V Yakimov	Central Marine Research and Design Institute
MIST-IV-6002	Justification of the ways to improve road safety using intelligent transport systems	M A Arutiunian, S V Kolesnichenko, I D Shilkina, A V Zemskov	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6003	Temperature Fields Visualization Monitoring Subsystem at Low Temperatures	Anton Zhuravlev, Nataliya Annenkova	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6004	Information architecture of the intelligent management system of commercial road transport	N Gavrilenko and S Borodulina	Omsk Academy of the Humanities
MIST-IV-6005	Weight Balancing Device Parameters Optimization for Cargo Handling Crane Jib at The Northern Port Conditions	Yuri Ezhov, Andrey Oderyshev, Anton Zhuravlev	ate University of Maritime and Inland Shipping
MIST-IV-6006	Changes in the Norwegian Sea Levels and the Ice Conditions of the Kara Sea in Winter-Spring Months	A Kholoptsev, S Podporin, R Shubkin, E Ol'khovik	Sevastopol Branch, State Oceanographic Institute Named after N.N. Zubov, Sevastopol, Russia; Sevastopol State University, Sevastopol, Russia; Siberian Fire and Rescue Academy of the State Fire Service of EMERCOM of

MIST-IV-6007	Climate Changes in Siberia, Forest Fires and Ice Cover of the Northern Sea Route in Summer Months	A Kholoptsev, S Podporin, R Shubkin, E Ol'khovik	Russia, Zheleznogorsk, Russia; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia N.N. Zubov State Oceanographic Institute, Sevastopol Branch, Sevastopol, Russia; Siberian Fire and Rescue Academy of EMERCOM of Russia, Zheleznogorsk, Russia; Sevastopol State University, Sevastopol, Russia; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia
MIST-IV-6008	Information support for mooring walls deformation parameters identification	Nataly Krupenina, Alexander Egorov, Lyubov Tyndykar	Admiral Makarov SUMIS
MIST-IV-6009	Floating Nuclear Power Plants: Risks and Opportunities for the Development of Arctic Ports	Elena Karavaeva	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6010	Strategy for the Development of LNG Hubs of the Northern Sea Route	Tatiana A Kislova, Anatoly A Bulov, Anatoly V Burkov	Admiral Makarov State University of Maritime and Inland Shipping, Saint-Petersburg, Russia
MIST-IV-6011	Implementation of e-navigation principles using artificial intelligence technologies	A A Burykin, M N Grachev	State University of Marine and River Fleet named after Admiral
MIST-IV-6012	Investment Attractiveness of River Ports in the Arctic Zone of the	Legostaeva, Koroleva, Deniak, Cherepanov, Vvedenskii	Maritime and Inland Shipping

	Yamalo-Nenets Autonomous Okrug: Assessment Toolkit and Key Factors		
MIST-IV-6013	Soft Computing Methods for Seaports' Scenario Generationx	Kuznetsov, Kirichenko, Sampiev, Semenov	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6014	Reduction of storage area due to the use of a modernized container in the Far North	Kasatkin G D	Admiral Makarov state university of maritime and inland shipping
MIST-IV-6015	The Influence of External Factors Determining the Operation of the Positioning Sensor in the Condition of the Far North	V L Shchemelev, Yu E Yezhov, I V Zub	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6016	Prospects of general-purpose ports of the northern sea route	O A Izotov, Yu I Vasiliev	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6017	The limitations of analytical approach to the seaports' technological design	Kuznetsov, Kirichenko, Sampiev, Semenov	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6018	Development and Problems of the World Tank-container Fleet	A N Telyatnikov, I A Rusinov, M A Gogina	Admiral Makarov State University of Maritime and Inland Shipping
MIST-IV-6019	The Concept of Creating and Applying the Combined Cable Car System in The Arctic Region	Yu D Kravets, K A Shcherbakov, A V Kirichenko	Military Educational Institution of Logistics named after General of the Army A.V. Khrulyov, St. Petersburg, Russia; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia

MIST-IV-6020	Analysis of Reliability of Shipboard Systems Operating in the Arctic	E Moseyko, E Ol'khovik	Central Design Bureau «Iceberg», St. Petersburg, Russia; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia
MIST-IV-6021	Application of the Integration Method of Submerged Parts of Frames for Accurate Determination of the Amount of Cargo on Board the Vessel	A E Slicana, A V Galin	Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia
MIST-IV-6022	Communication of Arctic Marine Transportation Opportunities	Ove T Gudmestad	University of Stavanger, Norway; Western Norway University College, Haugesund, Norway; The Arctic University of Norway, Tromsø, Norway
MIST-IV-6023	Cargo heating bunker consumption checking technique in commercial tanker fleet management	Mariia Vinnikova, Aleksandr Cherkasov	Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russia
MIST-IV-6024	Method for Determining the Natural Rolling Period	Viktor I Sichkarev, Viktor P Umrikhin, Alexey A. Privalenko, Andrei I Sokolov	Siberian State University of Water Transport, Novosibirsk, Russian Federation; Admiral Makarov State University of Maritime and Inland Shipping, St. Petersburg, Russian Federation
MIST-IV-6025	Safety Issues of Waterway Transportation in the Aspect of Accidents on Sea Cargo Transport in the Russian Federation	Anton Smirnov, Evgeniy Smolokurov, Alim Mazhazhikhov	Admiral Makarov State University of Maritime and Inland Shipping, Saint-Petersburg, Russia

Section 7. Advanced Technologies in Aerospace, Mechanical and Automation Engineering

MIST-IV-1005	Resistance law dependence on radius ratios for turbulent Taylor-Couette flow from extended local balance model	Alexander Balonishnikov, Julia Kruchkova	Saint Petersburg State University of Aerospace Instrumentation, SPB, Russia; Saint Petersburg University of the ministry of Internal Affairs of Russia, SPB, Russia
MIST-IV-1013	Development of design solutions for improving the characteristics of capacitive sensitive elements of sensors of physical quantities	Piotr Mikhailov	Penza State Technological University Penza Russia
MIST-IV-1018	Quasioptimal control in diversified signal transmission	P.A. Polushin, O.R. Nikitin, I.R. Dubov	Vladimir state University
MIST-IV-1035	Methodology for assessing the aerodynamic imbalance of GTE impellers	E.V. Kudashov, M.A. Bolotov, I.A. Grachev, N.D. Pronichev	Samara National Research University, Institute of Engines and Power Plants, Samara, Russian Federation
MIST-IV-1041	The use of a computer modeling system for foundry processes in blank production	R.A. Vdovin, Iu. V. Komisar and A V Karpov	Samara University, Samara, Russia
MIST-IV-3013	Mathematical Model Design for a 7-DOF robot and 6-DOF comparison simulation	José Luis Ordoñez-Avila, Roger Midence, Islam A Magomedov	Kadyrov Chechen State University

MIST-IV-3058	Development of an intelligent learning system based on fuzzy logic	V.V. Izvozchikova, T.E. Tlegenova, V.V. Markovin	Orenburg State University
MIST-IV-4010	Choosing technical components of the physical protection system of objects	S.Yu. Fedorov, V.N. Khalizev, E.S. Tarasov	Institute for Computer Systems and Information Security, Kuban State Technological University, Krasnodar, Russia
MIST-IV-5009	Development of a bi-fuel power supply system for a diesel engine	Sh.V. Buzikov, O.P. Matushkin, Yu.N. Matushkina	Vyatka State University, Kirov, Russia
MIST-IV-5021	Analytical studies of plant proteins based on grain mixtures	I. Kechkin, V. Ermolaev, M. Yakovchenko, E. Gurkovskaya, E. Makhacheva	Plekhanov Russian University of Economics, Academic Department of Catering Business Stremyanny lane, Moscow, Russian Federation; uzbass State Agricultural Kemerovo, Russia; K.G. Razumovsky Moscow State University of technologies and management (the First Cossack University), Moscow, Russia; Department of Technology and Organization of Food Production, Faculty of Business, Novosibirsk State Technical University (NSTU), Novosibirsk, Russia
MIST-IV-5040	Investigating the Dynamics of a Buck Converter with time-delay feedback control	A.I. Andriyanov	Bryansk Technical State University
MIST-IV-5045	Improving the environmental safety of vehicle operation by using flywheel batteries	L.R. Abdullina, K.R. Rusanova, M.M. Petrova, M.K. Avakian, A.V. Zrazhevskiy	Bauman Moscow State Technical University BMSTU, Moscow, Russian Federation; Platov South-Russian State Polytechnic University (NPI), Novochoerkassk, Russian Federation