

7th 2025 International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE), IEEE

Registration of Participants – April 9, 2025, from 09:30 till 10:00 am

Address: Moscow, Brigadirsky lane, 13, (Congress Hall, B4K)

Conference Program (April 9, 2025)

Starting the international participants' presentations (10:00 Moscow)

{Each Participant has 7 minutes for presentation + 3 minutes Q&A by attendees}

First Session 10:00 – 11:30 Moscow

<u>Section A: Engineering Management and Financial Engineering</u> Rooms "Space" and "Energy" Chaired by: Prof. Pavel Drogovoz & Prof. Elena Lyapunsova		
1	Corporate portal as a visual information analysis tool for the management decision support system	<i>Boris D. Byshovets Evgenii N. Bocharnikov Katerina D. Rudenko Darya A. Skvortsova</i>
2	Development of a process-driven methodology for IT strategic management	<i>Vladimir A. Shiboldenkov Ekaterina S. Nesterova</i>
3	Analysis of Russian and International Experience in Creating Business Models Based on Industrial Symbiosis	<i>I.I. Fokina Yu.G. Gertsik</i>
4	Raising Company Employee Awareness in Information Security Based on Risk-oriented Approach and Modern Trends	<i>Sergey V. Skryl Ekaterina S. Golubtsova Ivan S. Golubtsov</i>
5	Application of Machine Learning Technologies for Assembly Quality Analysis in Instrumentation Engineering	<i>Alexander V. Ragutkin Ivan M. Sidorov Mikhail I. Sidorov Elena S. Postnikova Indira I. Fatklislamova Bilal A. Edaev</i>
6	Review of methods and models in assessing the impact of institutions on the digital ecosystems	<i>Maria E. Kulikova Natalia A. Kashevarova</i>
7	An approach to digital transformation of the registration expertise of devices using blockchain technologies	<i>Maria V. Yakovleva Artem I. Antonov</i>

Section B: Medical Devices and Diagnostic Engineering

Room "Engineer"

Chaired by: Prof. Stanislav Yurchenko & Prof. Sergey Shchukin

1	Development of a Bench for Automated Amplitude Measuring of Ultrasound Surgical Systems	<i>Ivan D. Kashkarov Aleksandra M. Kashkarova Nikita V. Belikov Anna S. Borde Daria S. Efimova Maria I. Moiseeva Anastasia A. Yagodkina</i>
2	Real-time Signal Processing for Degree of Hand Grasping and Rotation Based on Electrical Impedance Measurements	<i>Mariya Yakim Alfiya Yusupova Anastasia Yagodkina Alexander Kobelev Sergey Shchukin</i>
3	Mechanical properties of vascular stents investigation method development with the finite element simulation	<i>Julia A. Bogolyubova Vyacheslav O. Varlygin Alexey A. Oskin Semen E. Rudakov Nikita I. Rodimkin Evgeniy S. Ermolaev</i>
4	Recording Respiratory Activity and ECG for Automated Cardiopulmonary Resuscitation Systems	<i>Veronika Mazeina Lidiya Malchuk Pavel Chibizov Alexander Kobelev</i>
5	Non-Invasive Cuffless Bioimpedance System for Measuring Brachial-Ankle Pulse Wave Velocity	<i>Ahmad M. Hammoud Amalia. A. Latypova Sofia V. Tangatarova Julia S. Evdokimova Tatiana A. Safronova Anna E. Pokrovskaya</i>

Coffee Break 11:30 - 12:00 Moscow

Second Session 12:00 – 13:30 Moscow

Section A: Engineering Management and Financial Engineering **Rooms "Space" and "Energy"**

Chaired by: Prof. Elena Lyapuntsova and Assoc. Prof. Natalia Kashevarova

1	Technological progress in the field of unmanned aerial vehicles: retrospective and forecast	<i>Maria E. Kulikova Oksana S. Drobkova Pavel V. Platonov</i>
2	An approach to assessing the maturity of ESG practices in industrial enterprises in the energy sector	<i>Oksana S. Drobkova Maria E. Kulikova</i>
3	Prospects for economic integration of artificial intelligence in the context of technology shocks	<i>Angelina D. Shipkova Vladimir A. Shiboldenkov</i>
4	Using Correlation Analysis to Determine Relationships between Sustainable Development Goal Indicators	<i>Nikita O. Romanov Nikita A. Filin Boris A. Shvaiko Andrey A. Kuznetsov Natalya V. Salienko</i>
5	Russian engineering software: prospects in Russia and potential in the BRICS markets	<i>Inga V. Knyazeva Mikhail Yur. Leontev Andrey E. Smolovik Anna S. Guskova</i>
6	Development of Models for Describing Organizational and Managerial Risks for Scientific and Engineering Projects in Photonics	<i>Anna V. Pilyugina Arina D. Potapova Mariia A. Sidorova Petr S. Belov Valery V. Klischenko</i>
7	Digitalisation of energy enterprises in Russia: the role of business intelligence in overcoming staff shortages	<i>Andrey D. Vashlaev</i>

Section B: Medical Devices and Diagnostic Engineering **Room "Engineer"**

Chaired by: Prof. Stanislav Yurchenko & Prof. Sergey Shchukin

1	Current Issues of Increasing the Explainability of AI Systems in Medicine	<i>Vita V. Vlasova Elena V. Lyapuntsova Evgenia A. Belousova</i>
2	Approach to Assessing Electrical Impedance of Microcirculation: A Case Study	<i>Pavel G. Ryazantsev Arina Y. Ustinova Andrey N. Briko Sergey I. Shchukin Boris A. Akselrod</i>
3	Soft tissue biomechanical characteristics for personification in the neuromuscular interface research	<i>D.S. Efimova, A.A. Karasyov, A.R. Ishkildin, V.V. Kapravchuk, A.S. Borde, A.N. Briko</i>
4	Modeling and Analysis of Normal and Pathological Cardiac Pressure Profiles in a Hydrodynamic Stand	<i>Alexey A. Oskin, Andrew V. Shcherbachev, Ivan A. Kudashov, Alexander V. Pavlov, Oleg I. Apolikhin</i>
5	An approach to developing an information system for medical diagnostics of a patient	<i>Dana V. Korotysh Daniil A. Loktev Mikhail V. Merkelov</i>

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First Session 10:00 – 11:30 Moscow

Section A: Engineering Management and Financial Engineering **Rooms "Space" and "Energy"**

Chaired by: Assoc. Prof. Natalia Kashevarova & Senior Lecturer Dmitry Lyakhovich

1	Analysis of measuring instruments of domestic production similar to imported measuring instruments	<i>Stanislav O. Plotnikov, Mikhail G. Kruglov, Ilya A. Smetanin, Egor A. Smetanin, Uliana F. Bykanova, Kamila T. Makarova</i>
2	Business Process Transformation in Modern Scientific Organization	<i>Vitalii V. Vlasov, Elena V. Lyapunтова, Tatiana A. Novikova, Maxim A. Nogovitsyn, Vita V. Vlasova</i>
3	Construction of models of equipment service maintenance by the morphological analysis method	<i>Aleksei A. Saraev, Alla E. Brom</i>
4	Optimizing SQL queries to improve the performance of information systems	<i>Mikhail E. Stavrovsky, Alexander V. Ragutkin, Ivan M. Sidorov, Tamara A. Nosenko, Mikhail I. Sidorov, Elena S. Postnikova</i>
5	Development of a prototype system for remote monitoring of warehouse equipment operation	<i>Mikhail E. Stavrovsky, Mikhail I. Sidorov, Elena S. Postnikova, Bilal A. Edaev, Timur A. Khasanov</i>
6	Analysis of product assembly quality using regression recovery methods	<i>Mikhail E. Stavrovsky, Alexander V. Ragutkin, Ivan M. Sidorov, Indira I. Fatklislamova, Timur A. Khasanov</i>
7	Classification types recommendations for the Innovation Projects management	<i>Ekaterina V. Zueva Miroslava T. Chobitko Vladimir A. Shiboldenkov</i>

Section B: Medical Devices and Diagnostic Engineering **Room "Engineer"**

Chaired by: Prof. Stanislav Yurchenko & Prof. Sergey Shchukin

1	Phototherapeutic technologies and devices based on pulsed xenon lamps	<i>Valery V. Bagrov, Alexander S. Kamrukov, Andrey V. Kondratyev, Vladimir I. Krylov, Maxim S. Frantsuzov</i>
2	3D reconstruction and parameterization of chest anatomy for electrical impedance analysis	<i>Gorin Nikita, Nabiulin Evgenii, Plytkivich Georgii</i>
3	Automated approach to vascular prostheses preparation	<i>Ivan A. Burkov, Valeria M. Ivannikova, Aleksandr V. Pushkarev, Dmitry I. Tsiganov</i>
4	Experimental evaluation of air cryotherapy unit control system	<i>Aleksandr V. Pushkarev, Natalia Yu. Saakyan, V.D. Chekmenev</i>
5	Machine Learning Technology for Diagnostics of Human Adaptive Capabilities	<i>Vladimir Savostyanov, Alexander Kobelev, Alexey Popov</i>

Coffee Break 11:30 - 12:00 Moscow

Second Session 12:00 – 13:30 Moscow

Section A: Engineering Management and Financial Engineering **Rooms "Space" and "Energy"**

Chaired by: Assoc. Prof. Natalia Kashevarova & Assoc. Prof. Vladimir A. Shiboldenkov

1	Automating Information Retrieval with Semantic Data Processing	<i>Liana G. Amirkhanyan Alla E. Brom</i>
2	Certain nuances in the forecasting models of the social phenomena	<i>Daria A. Gashnikov Alla E. Brom</i>
3	Analysing crisis response strategies using the cyclic causality diagram	<i>Alexey I. Kuznetsov Anastasia V. Moshnina Kseniia E. Borodianskaia</i>
4	Regulatory requirements integration for the sustainable innovation classification	<i>Viktoria D. Chubakova Oxana S. Drobkova</i>
5	Automatic generation of optimal standard-size series of engineering products using modified method for calculating total cost of ownership	<i>Vitaly S. Antipenko Nataliya S. Nikolaeva</i>
6	Building Technological Partnership in New Conditions	<i>Daria A. Parfenova</i>

Section B: Medical Devices and Diagnostic Engineering **Room "Engineer"**

Chaired by: Prof. Stanislav Yurchenko & Prof. Sergey Shchukin

1	Yoga Pose Classification Using Machine Learning	<i>Margarita Balaeva Alexey Tikhomirov</i>
2	Recovery of Cerebral Hemodynamic and Metabolic Changes via Cytochrome C Oxidase and Near Infrared Spectroscopy	<i>Mariia N. Belsheva Larisa P. Safonova</i>
3	Measuring hydrostatic piezoelectric voltage coefficient of PVDF films for biomedical applications	<i>Danila P. Emanov Alexey S. Osipkov Vladlen Yu. Sinica Konstantin M. Moiseev</i>
4	Study of Temperature Dependence of Liver Tissue Relaxation Frequency During Radiofrequency Ablation	<i>Valeriy A. Karpukhin Artyom A. Burtsev</i>