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, Baumanskaya st., 57A

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

<table>
<tr><td colspan="3">Section A: Engineering Management and Financial Engineering
Rooms "Space" and "Energy"
Chaired by: Prof. Pavel Drogovoz</td></tr>
<tr><td>1</td><td>Corporate portal as a visual information analysis tool for the management decision support system</td><td>Boris D. Byshovets
Evgenii N. Bocharnikov
Katerina D. Rudenko
Darya A. Skvortsova</td></tr>
<tr><td>2</td><td>Development of a process-driven methodology for IT strategic management</td><td>Vladimir A. Shiboldenkov
Ekaterina S. Nesterova</td></tr>
<tr><td>3</td><td>Analysis of Russian and International Experience in Creating Business Models Based on Industrial Symbiosis</td><td>I.I. Fokina
Yu.G. Gertsik</td></tr>
<tr><td>4</td><td>Raising Company Employee Awareness in Information Security Based on Risk-oriented Approach and Modern Trends</td><td>Sergey V. Skryl
Ekaterina S. Golubtsova
Ivan S. Golubtsov</td></tr>
<tr><td>5</td><td>Application of Machine Learning Technologies for Assembly Quality Analysis in Instrumentation Engineering</td><td>Alexander V. Ragutkin
Ivan M. Sidorov
Mikhail I. Sidorov
Elena S. Postnikova
Indira I. Fatklislamova
Bilal A. Edaev</td></tr>
<tr><td>6</td><td>Review of methods and models in assessing the impact of institutions on the digital ecosystems</td><td>Maria E. Kulikova
Natalia A. Kashevarova</td></tr>
<tr><td>7</td><td>An approach to digital transformation of the registration expertise of devices using blockchain technologies</td><td>Maria V. Yakovleva
Artem I. Antonov</td></tr>
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	Section B: Medical Devices and Diagnostic Engineering Room "Material" Chaired by: Prof. Stanislav Yurchenko & Prof. Sergey Shchukin	
1	**Development of a Bench for Automated Amplitude Measuring of Ultrasound Surgical Systems**	*Ivan D. Kashkarov* *Aleksandra M. Kashkarova* *Nikita V. Belikov* *Anna S. Borde* *Daria S. Efimova* *Maria I. Moiseeva* *Anastasia A. Yagodkina*
2	**Real-time Signal Processing for Degree of Hand Grasping and Rotation Based on Electrical Impedance Measurements**	*Mariya Yakim* *Alfiya Yusupova* *Anastasia Yagodkina* *Alexander Kobelev* *Sergey Shchukin*
3	**Mechanical properties of vascular stents investigation method development with the finite element simulation**	*Julia A. Bogolyubova* *Vyacheslav O. Varlygin* *Alexey A. Oskin* *Semen E. Rudakov* *Nikita I. Rodimkin* *Evgeniy S. Ermolaev*
4	**Recording Respiratory Activity and ECG for Automated Cardiopulmonary Resuscitation Systems**	*Veronika Mazeina* *Lidiya Malchuk* *Pavel Chibizov* *Alexander Kobelev*
5	**Non-Invasive Cuffless Bioimpedance System for Measuring Brachial-Ankle Pulse Wave Velocity**	*Ahmad M. Hammoud* *Amalia. A. Latypova* *Sofia V. Tangatarova* *Julia S. Evdokimova* *Tatiana A. Safronova* *Anna E. Pokrovskaya*

Coffee Break 11:30 - 12:00 Moscow

Second Session 12:00 – 13:30 Moscow

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

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

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

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

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

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

Coffee Break 11:30 - 12:00 Moscow

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

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