

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

REEPE-KGEU section

Registration of Participants – April 8, 2025, from 12:00 till 12:30 PM Moscow

Kazan State Power Engineering University (KGEU)

Conference Program (April 8, 2025)

Starting the participants' presentations (12:30 PM-14:30 PM)

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

Section A: Power, Energy and Industry Applications

1. Temperature Monitoring of Contact Connections of Electrical Equipment with 0.4 kV Operating Voltage	<i>Oleg V. Vorkunov, Alexander M. Makletsov, Dmitry I. Feoktistov</i>
2. Digital transformation of the electric power industry: project management using AI	<i>Alsu I. Khabibrakhmanova, Anna A. Alekseeva</i>
3. Influence of Operating Parameters on Thermal Capacity of Closed Cooling Tower with Bundle of Finned Tubes	<i>Ilnur N. Madyshev, Vitaly V. Kharkov, Anna O. Mayasova, Vadim E. Zinurov</i>
4. Creating ion-selective electrodes for determining the concentration of ions in the process water of TPPs and NPPs using additive technologies	<i>Antonina A. Filimonova, Egor S. Mayorov, Andrey A. Filimonov</i>
5. Development of a resource to automate the process of categorisation of critical information infrastructure objects	<i>Alexandr M. Sadykov, Anna A. Alekseeva, Alsu I. Khabibrakhmanova</i>
6. Development and study of zinc oxide-based compositions to ensure dynamic sorption capacity at low temperatures	<i>Antonina A. Filimonova, Alena Yu. Vlasova, Ruzina F. Kamalievna, Natalia D. Chichirova</i>
7. Analysis of the operation of remote backup protection on 110 kV overhead lines when connecting an intermediate power source	<i>Ruslan G. Isakov, Vildan R. Sagirov</i>
8. Specifics of using the stability margins monitoring system in the planning and management of electric power regimes in the Tatarstan branch of JSC "SO UES" RDM	<i>Efim Shirobokov, Yuliya Zatsarinnaya, Rustem Gainullin</i>
9. Short-circuit fault location method on 10(6) kV overhead power lines using existing relay protection terminals terminals and intelligent electricity metering devices	<i>Ayrat M. Tuityarov, Ruslan G. Isakov</i>
10. The method of obtaining deposits on the heat exchange surface of heat exchangers	<i>Litvinenko Anna Alekseevna, Vankov Yuri Vitalievich, Timershin Azat Robertovich, Sharafiev Dmitry Evgenievich, Ponomarev Roman Andreevich</i>

Section B: Power, Energy and Industry Applications

1.	Development of input circuits for the converter of DC charging stations electric power	<i>Bulat Safiullin, Artyom Starodubets, Khalil Vakhitov, Aver Aukhadeev, Ruslan Litvinenko, Shamil Sagirov</i>
2.	Constructive solutions and efficiency of electrolyzers for hydrogen production in laboratory and industrial conditions	<i>Artur M. Khayrutdinov, Antonina A. Filimonova, Dilyara F. Gaynutdinova</i>
3.	Estimation of the charge time of a periodic thermal energy storage device with a high-temperature heat accumulator	<i>Vadim E. Zinurov, Andrey V. Dmitriev, Azaliya A. Abdullina, Alexey N. Chadaev, Oksana S. Dmitrieva</i>
4.	Investigation of heat exchange between a pipe in the ground and the surrounding air using numerical methods	<i>Maksim O. Utkin, Irina A. Mutugullina, Guzel R. Badretdinova</i>
5.	Acoustic control methods for detecting defects in PU insulation	<i>Ilgiz M. Gazizullin, Grigory D. Rusakov, Andrey V. Dmitriev</i>
6.	Assessment of the influence of support material on the characteristics of the electric field along an insulator string	<i>Ruslan N. Balobanov, Elena V. Dmitrieva</i>
7.	Consideration of the voltage regulating capacity of transformers when optimizing sectionalization in the distribution network	<i>Artem Alekseevich Pigalin, Ramil Ilgizovich Galiev, Ilgiz Fanzilevich Galiev</i>
8.	Hybrid energy projects in Tatarstan	<i>Farit R. Gainutdinov, Antonina A. Filimonova, Dilyara F. Gaynutdinova</i>
9.	Thermal energy transfer to a high-temperature working substance as a function of its structure in a thermal energy storage	<i>Vadim E. Zinurov, Arslan M. Muginov, Irina G. Akhmetova, Nguyen Vu Linh, Damir T Khaliullin.</i>
10.	Simulation Modeling of Trolley Busbar Line Operation Modes	<i>Shamil F. Rakhmankulov, Rail R. Salihov, Oleg V. Vorkunov, Marcel Sh. Garifullin, Dinara R. Khalikova</i>
11.	Study of the Process of Thermal Decomposition of Sewage Sludge	<i>Mahal M. Muradov, Mushkunaz K. Nazarova, Matanat S. Pirkulieva, Hadir M. Gadgilbaev, Azat N. Husnutdinov, Konstantin G. Bakulin</i>

Section C: Components, Circuits, Devices and Systems; Computing, Signal Processing and Analysis; Fields, Waves, and Electromagnetics; Engineering Management and Financial Engineering; Transportation

1.	The system of automation for the positioning of an auto operator of a galvanic line using inductive sensors and a frequency converter	<i>Rustem N. Mukhametzhonov, Semen O. Kaminsky, Albina T. Galiakhmetova, Elena A. Andreeva, Rafael R. Askarov</i>
2.	Determination of the characteristics of the wing of an unmanned aerial vehicle for conducting inspections at energy facilities	<i>Ivan A. Mishchuk, Aleksandr V. Soloviev, Andrey V. Dmitriev</i>
3.	Analysis of visual information to determine the emotional state of people	<i>Svetlana M. Kutsenko, Elena A. Saltanaeva, Tatiana V. Lapteva, Nikolay S. Kiselev</i>
4.	Leukocyte formula elements determination in blood smear images using deep learning techniques	<i>Tatiana V. Lapteva, Egor D. Ushakov, Svetlana M. Kutsenko, Elena A. Saltanaeva</i>
5.	Adaptive VR Systems Based on EEG and Machine Learning Algorithms	<i>Alexander Yu. Tychkov, Robert N. Khizbullin, Radik N. Khizbullin, Alexander D. Ivanov, Alan K. Alimuradov, Denis S. Chernyshov</i>
6.	Organization of HF Communications over Overhead Power Lines Without using Connection Devices	<i>Ramil G. Mustafin, Vasil A. Kasimov, Samat S. Rahmatullin, Anna A. Granskaya</i>
7.	Optimal methods of primary information processing of the CCD-based emission spectrometer registration system	<i>Vladimir S. Sukhomlinov, Rimma S. Zaripova, Anna N. Popova</i>
8.	Application of COMSOL Multiphysics for modeling wireless charging systems	<i>Yulian R. Kadyrmjatov, Alfred R. Safin, Timur I. Petrov, Vasily R. Basenko</i>
9.	Financial engineering as an enterprise management tool	<i>Serkina Nina Anatolevna Timergazizova Emina Romanovna</i>
10.	Construction of automated traffic control systems for ground rail urban electric transport	<i>Aver Aukhadeev, Thihn Le, Leylya Kisneeva, Ruslan Litvinenko, Khalil Vakhitov, Valeriy Butakov</i>
11.	Development of unmanned traffic technologies in the subway system	<i>Aver Aukhadeev, Thihn Le, Leylya Kisneeva, Ruslan Litvinenko, Khalil Vakhitov, Irina Antipanova</i>