



S. SEIFULLIN KAZAKH AGROTECHNICAL RESEARCH UNIVERSITY
ENERGY FACULTY
DEPARTMENT OF ELECTRIC POWER SUPPLY

SCHEDULE

OF THE II INTERNATIONAL SUMMER SCHOOL – 2023

**ON THE TOPIC: "INNOVATIVE TECHNOLOGIES AND DIGITALIZATION IN POWER SUPPLY
SYSTEMS"**

from MAY 10 to MAY 22, 2023

S. Seifullin Kazakh Agrotechnical Research University
invites you to participate in the II International Summer School-2023
on the topic "**INNOVATIVE TECHNOLOGIES AND DIGITALIZATION IN POWER SUPPLY
SYSTEMS**", organized by the Faculty of Energy from May 10 to May 22, 2023

Purpose	Acquaintance with innovative knowledge and technologies in the field of energy, automation and digitalization, IT in production, aimed at solving problems in the energy sector
Form of participation	Mixed format: in person and remotely via Zoom platform (lectures, seminars, master classes, round tables), in the first week - on-line lectures based at S.Seifullin Kazakh Agrotechnical Research University, and in the second week - offline, based at JSC «Training Center of Energoinform» (KEGOC)
Cost of education	Free
Listeners	Undergraduates, Master students, PhD doctoral students, scientific and pedagogical workers
Amount of credits	3 ECTS credits, 2 weeks
Opportunities	For students - to expand the horizons of knowledge beyond the main educational program, an additional transcript to the diploma indicating the discipline and the number of credits. For lecturers - a certificate of participation (certificate of advanced training), a letter of thanks.
Lecturers	Leading professors and specialists in the field of electrical and thermal engineering, automation and digitalization
Participants	The project will involve specialists from Kazakhstan, America, South Africa, Poland, Bulgaria, Russia and Uzbekistan
Languages	Kazakh, English and Russian
Location	1. S.Seifullin Kazakh Agrotechnical Research University - on-line; 2. Akmola region, Burabay district, the territory of the Southern shore of Lake Katarkol, JSC «Training Center of Energoinform» (KEGOC) -offline
Organizers	Faculty of Energy, Department of Electric Power Supply
Contacts of the organizing committee	Tel.: +77015122279, +77003333371, e-mail: g_sahitovna@mail.ru

Organizers of the International Energy Summer School - 2023

Coordinator	Tireuov K.M.	Doctor of Economic Sciences, Professor, Academician of the National Academy of Sciences of the Republic of Kazakhstan, Chairman of the Board-Rector of the NC JSC S.Seifullin Kazakh Agrotechnical Research University
International organization	Meiramova S.A.	Candidate of Pedagogical Sciences, Associate Professor, Director of the Department of International Relations
Organizer - moderator	Tatkeyeva G.G.	Doctor of Technical Sciences, corr. member of NAS RK, Head of the Department of Electric Power Supply
Administrator	Isenov S.S.	Candidate of Technical Sciences, Associate Professor, Dean of the Energy Faculty
Module leaders	Sarsikeev E.Zh.	PhD, Associate Professor, Head of the Department of Electrical Equipment Operation
	Uakhitova A.B.	Candidate of Technical Sciences, Associate Professor of the Department of Electric Power Supply
	Asainov G.Zh.	PhD, Senior Lecturer, Department of Electric Power Supply
Facilitator	Nurmaganbetova G.S.	PhD, Senior Lecturer, Department of Electric Power Supply

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WEDNESDAY, 05/10/2023

Time	KEY SPEAKERS
<p align="center">Opening ceremony of the II International Summer School -2023 Online format: Conference ID: 635 078 1203 access code: 123456 and offline in the M. A. Handelman Conference Hall</p>	
<p align="center">GREETINGS:</p>	
<p>10:00- 10:05</p>	<p>Tireuov Kanat Maratovich Doctor of Economic Sciences, Professor, Academician of the National Academy of Sciences of the Republic of Kazakhstan, Chairman of the Board - Rector of the NC JSC S. Seifullin Kazakh Agrotechnical Research University</p>
<p align="center">CONGRATULATORY WORD</p>	
<p>10:05- 10:10</p>	<p>Serikov Tansaule Gabdymanapuly PhD, Associate Professor, Deputy of the Majilis of the Parliament of the Republic of Kazakhstan</p>
<p>10:10- 10:15</p>	<p>Representative of the Ministry of Agriculture of the Republic of Kazakhstan</p>
<p>10:15- 10:20</p>	<p>Representative of the Ministry of Science and Higher Education of the Republic of Kazakhstan</p>
<p>10:20- 10:25</p>	<p>Representative of the Ministry of Energy of the Republic of Kazakhstan</p>
<p>10:25- 10:30</p>	<p>Zhumashov Daniyar Bimuratovich Acting Chairman of the Board of NASEC</p>
<p>10:35- 10:40</p>	<p>Berdigulov Ernat Kudaibergenovich Managing Director for Strategy and Asset Management of KWF Samruk-Kazyna JSC</p>
<p>10:40- 10:45</p>	<p>Moldabaev Kanysh Tanirbergenovich Chairman of the Management Board of JSC "Kazakhstan Electric Grid Operating Company"</p>
<p>10:45- 10:50</p>	<p>Akhmetova Irina Gareevna Vice-Rector for Development and Innovation, Kazan State Power Engineering University</p>
<p>10:50- 10:55</p>	<p>Denisova Natalia Fedorovna Vice-Rector for Research and Digitalization, D. Serikbayev East Kazakhstan Technical University</p>
<p>10:55- 11:00</p>	<p>Balkishev Serik Turganbekovich Director of the Electric Energy Distribution Department, Karaganda Zharyk LLP</p>
<p>11:00- 11:05</p>	<p>Mitskan Andrey Head of the USAID Energy Project in Central Asia</p>
<p>11:05- 11:50</p>	<p>Poland Guest Lecture Cieslik Jacek, PhD, professor of the Department of Robotics and Mechatronics at AGN University of Science and Technology. AGH UST Coordinator for Contacts with Universities in Kazakhstan and Central Asia. The topic of guest lecture “Acquaintance with innovative knowledge and technologies in the field of energy”</p>
<p>11:50- 12:35</p>	<p>South Africa Guest Lecture Chandima Gomes, PhD, a distinguished professor of high voltage engineering at the University of the Witwatersrand, South Africa. The Chairman of ESKOM Power Plant Engineering Institute-HVAC and the Director of the Centre of Excellence in High</p>

	<p>Voltage Engineering at Wits University. The Chairman of the Energy Storage Chapter of SAIEE and pioneered in developing the “hydrogen-fueled smart village” concept in South Africa.</p> <p>The topic of guest lecture: Future of solar PV & energy storage systems: The role of stakeholders</p>
Break	
14:00-14:30	Guest lecture by Sergey Vasilievich Poleshchuk , General Director of Ergonomics Research and Production Company LLP
14:30-15:00	Guest lecture by Doctor of Technical Sciences, Professor of the Novosibirsk State Technical University Kaluzhskiy Dmitry Leonidovich
15:00-15:30	Guest lecture by Doctor of Technical Sciences, Professor of the Irkutsk National Research Technical University, Naumov Igor Vladimirovich
15:30-16:00	Guest lecture by Doctor PhD, Associate Professor, Head of the Department of Electric Power Supply of the Tashkent State Technical University named after Islam Karimov, Rakhmonov Ikromzhan Usmonovich

THURSDAY, 05/11/2023

Time	Lecturers	Topic
ONLINE FORMAT		
09:00-09:50	US Guest Lecture Adnan Alrubaye, PhD , Assistant Professor of Poultry Microbiology, Associate Director of Graduate Program in Cell and Molecular Biology at Department of Poultry Science, Center of Excellence for Poultry Science of University of Arkansas, Fayetteville city, USA.	The topic of guest lecture: Optimistic perspective into the conversion of broiler wastes into energy source
10:00-10:50	Koshumbaev Marat Bulatovich Doctor of Technical Sciences, Academician of the International Academy of Informatization at the United Nations, Senior lecturer of the Department of Thermal Power Engineering, S. Seifullin Kazakh Agrotechnical Research University	«Hydraulic structures for water supply, energy, irrigation»
11:00-11:50	Yurchenko Alexey Vasilievich Doctor of Technical Sciences, Professor, Research School of Physics of High-Energy Processes, National Research Tomsk Polytechnic University	Breakthrough innovations in the energy sector
12:00-12:50	Sholanov Korganbai Sagnaevich Doctor of Technical Sciences, Associate Professor, Professor of the Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	The current state of wind energy in Kazakhstan and development trends
Break		
14:00-14:50	Kuterbekov Kairat Atazhanovich Doctor of Physical and Mathematical Sciences, Professor, Director of the Scientific Research Institute «Eurasian Institute of Physical and Energy Research and High Technologies» at L.N. Gumilyov Eurasian National University	Highly Efficient Hydrogen Energy Technologies: Creation of an h2 Hub, Nanocomposite Materials for Sodium-Ion Batteries
15:00-15:50	Mirmanov Arman Barlykovich Associate Professor of the Department of Radio Engineering, Electronics and Telecommunications, S. Seifullin Kazakh Agrotechnical Research University	LoRaWAN solutions for energy problems
16:00-16:50	Nabiyev Nabi Kozyevich	CAD for the development of

	Candidate of Technical Sciences, Senior Lecturer of the Department of Radio Engineering, Electronics and Telecommunications, S. Seifullin Kazakh Agrotechnical Research University	electrical circuits and printed circuit boards
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FRIDAY, 05/12/2023

Time	Lecturers	Topic
ONLINE FORMAT		
09:00-09:50	Sheryazov Saken Koishybaevich Doctor of Technical Sciences, Professor, Professor of the Department of Energy Supply and Automation of Technological Processes, South Ural State Agrarian University	Topical issues of the electric power industry in modern conditions
10:00-10:50	Dikhanbaev Bayandy Ibragimovich Doctor of Technical Sciences, Associate Professor of the Department of Thermal Power Engineering, S. Seifullin Kazakh Agrotechnical Research University	On the issue of preserving coal technology
11:00-11:50	Anissimov Yuriy Vasilyevich Candidate of Technical Sciences, Associate Professor of the Department of Electric Power Supply, Kazakh Agrotechnical Research University. S.Seifullin	Multifunctional logic protection of a transformer substation with a voltage of 35/10 kV
12:00-12:50	Dosankulov Zhandarbek Dosankulovich Candidate of Technical Sciences, Associate Professor of the Department of Electric Power Supply, Kazakh Agrotechnical Research University. S.Seifullin	On the issue of digitalization in the power supply system
Break		
14:00-14:50	Battalkhanov Amanbek Zamanbekovich Candidate of Technical Sciences, Associate Professor of the Department of Electric Power Supply, Kazakh Agrotechnical Research University. S.Seifullin	Selected aspects of energy digitalization, basic concepts, necessity, readiness and impact on industry organizations
15:00-15:50	Mehtiyev Ali Dzhumanshirovich Candidate of Technical Sciences, Associate Professor, Acting Professor of the Department of Electrical Equipment Operation, S. Seifullin Kazakh Agrotechnical Research University	Intelligent fiber – optic systems and sensors
16:00-16:50	Zhantlessova Assemgul Beissembaevna Candidate of Technical Sciences, Senior Lecturer Head of the Department of Electrical Equipment Operation S. Seifullin Kazakh Agrotechnical Research University	Identification of the steady-state short-circuit current based on the use of magnetically controlled elements

MONDAY, 05/15/2023

Time	Lecturers	Topic
ONLINE FORMAT, Training Center of 'Energoinform' JSC (KEGOC)		
09:00-10:50	Akhmetbaev Dauren Sadykovich Doctor of Technical Sciences, Associate Professor, Acting Professor of the Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Topological method of analysis and synthesis of steady state modes of electric power systems
11:00-12:50	Daribayev Alexander Sabradinovich Deputy Marketing Director, «Tavrida Electric Astana» LLP	Key technologies of the network of the future. On the way to the "Digital RES"

Break		
14:00-14:50	Tatkeyeva Galina Galimzyanovna Doctor of Technical Sciences, corr. member NAS RK, Head of the Department of Electric Power Supply	Ways of Kazakhstan's transition to carbon neutrality
15:00-16:50	Kenesova Perizat 3rd year doctoral student in D099 – «Power Engineering and Electrical Engineering», Educational program 8D07103 – «Electrical complexes and systems»	The creation of control systems adjustable speed electric drive in the modes of the generator braking

TUESDAY, 05/16/2023

Time	Lecturers	Topic
OFFLINE FORMAT, Training Center of 'Energoinform' JSC (KEGOC)		
09:00-09:50	Utegulov Arman Bolatbekovich PhD, Associate Professor of the Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Interfaces of power equipment and power receiving devices
10:00-10:50	Nogay Artur Adol'fovich PhD, post-doctoral student of the Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Development of technology for obtaining effective piezoelectric material for the creation of competitively capable piezoelectric generators
11:00- 12:50	Kurbanov Nurbek Nurulla ugli 2nd year postgraduate student, specialty 05.05.02 – «Electrical Engineering. Electric power stations, systems. Electrotechnical complexes and installations" of the Department of "Electricity» of the Tashkent State Technical University named after Islam Karimov	Digital energy efficiency assessment system
Break		
14:00-14:50	Asainov Gibrat Zholamanovich PhD, Senior Lecturer, Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Methods of increasing the reliability of electrical networks
15:00-16:50	Report of undergraduates Akopyan Dilyara Ferdinandovna 20-099-21-16	Research and justification of measures to reduce electricity losses in the 110 kV network of the Almaty power plant
	Boranbayeva Zamira Kairbekovna 20-099-21-16	Development of logic protection and automation of a 35 kV line
	Kostyrya Yekaterina Ivanovna 20-099-21-16	Development of relay protection and automation of transformer con- nection with avoltage of 10 kV

WEDNESDAY, 05/17/2023

Time	Lecturers	Topic
OFFLINE FORMAT, Training Center of 'Energoinform' JSC (KEGOC)		

09:00-09:50	Asainov Gibrat Zholamanovich PhD, Senior Lecturer, Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Methods of increasing the reliability of electrical networks
10:00-12:50	Report of undergraduates Kuantayev Nurzhan Kairatuly 20-099-21-16	Development of neural network algorithms for predicting the load of the Eastern MES branch of «KEGOC» JSC
	Kassym Arsen Erkinuly 20-099-21-16	Selection of optimal connection points for wind farms with a capacity of up to 10 MW (having several wind generators in their composition) in the Akmola region of the Republic of Kazakhstan
	Nurbolatkyzy Ayagoz 20-099-21-16	Analysis of the reliability of post-emergency modes of distribution networks Nursaya district of Atyrau
Перерыв		
14:00-14:50	Utegulov Arman Bolatbekovich PhD, Associate Professor of the Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Interfaces of power equipment and power receiving devices
15:00-16:50	Report of undergraduates Allabergenova Assiya Amangel`dyqyzy 20-099-21-17	Optimization of design parameters of 110 kV power transmission lines of JSC «ADGC»
	Amankeldy Amina Bereketovna 20-099-21-17	Research and justification of measures to improve the operational reliability of 35 kV overhead power transmission lines of JSC «ADGC»
	Baizhanov Kairat Amiruly 20-099-21-17	Improving the efficiency of interactions of digital Relay Protection terminals and Automation in the electrical networks of JSC «Astana REC»

THURSDAY, 05/18/2023

Time	Lecturers	Topic
OFFLINE FORMAT, Training Center of 'Energoinform' JSC (KEGOC)		
09:00-10:50	Uakhitova Aigul Botanovna Candidate of Technical Sciences, Associate Professor of the Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Intelligent Technologies in power engineering: neural networks and fuzzy logic.

11:00-12:50	Report of undergraduates Burambayev Yerassyl Aigurgenuly 20-099-21-17	Research and justification of measures to reduce electricity losses in electric networks with a voltage of 10-35 kV of the Arshalyn RES of JSC «ADGC»
	Yerikov Adilbek Nurkhanovich 20-099-21-17	Optimal control of the modes of electric networks with distributed generation of the Northern region of the Republic of Kazakhstan
	Issakov Khalmakhan Eralievich 20-099-21-17	Development of measures to save energy and increase energy efficiency of the enterprise for the production of precast concrete structures and products of LLP "GLB" Astana
	Shakharilaeva Sevda 20-099-21-17	Improving the reliability of the power supply system of the Zhezkazgan Processing Plant by improving the automatic reserve input system
Перерыв		
14:00-15:00	Nurmaganbetova Gulim Sakhitovna PhD, Senior Lecturer, Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Development of indirect temperature protection of an asynchronous electric motor with a squirrel-cage rotor for AC electric drives
15:00-16:50	Baltin Alisher Talgatuly Doctoral student of the 2nd course in D099 – «Power Engineering and Electrical Engineering», Educational program 8D07103 – «Electrical complexes and systems»	Development of approaches and methods for improving the energy efficiency of 20kV distribution networks

FRIDAY, 05/19/2023

Time	Lecturers	Topic
OFFLINE FORMAT, Training Center of «Energoinform» JSC (KEGOC)		
09:00-10:50	Nurmaganbetova Gulim Sakhitovna PhD, Senior Lecturer, Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Development of indirect temperature protection of an asynchronous electric motor with a squirrel-cage rotor for AC electric drives
11:00-12:50	Sharipov Turarbek Doctoral student of the 2nd course in D099 – «Power Engineering and Electrical Engineering», Educational program 8D07103 – «Electrical complexes and systems»	Development of a system that ensures the efficiency of power plants operating in the mode of utilization of heat losses of metallurgical production.
Break		
14:00-14:50	Uakhitova Aigul Botanovna Candidate of Technical Sciences, Associate Professor of the Department of Electric Power Supply, S. Seifullin Kazakh Agrotechnical Research University	Intelligent Technologies in power engineering: neural networks and fuzzy logic.

15:00-16:50 (5 am US EST)	US Guest Lecture Venkataramana Sridhar Ph.D., Professor of the Department of Biological Systems Engineering (MC0303) at Virginia Tech University, USA. P.E. (Civil) Diplomate, American Academy of Water Resources Engineers (D. WRE), Fulbright-Nehru Award for Academic and Professional Excellence, 2021-22.	Hydropower in Kazakhstan: A review
16:50-18:00	Master's students report Kurmagazu Nazerke 20-099-21-17	Justification and research of energy saving and energy efficiency measures of the Kyzylorda cement plant
	Sobolev Vasilii Sergeevich 20-099-21-17	The choice of design solutions for lightning protection means using mathematical models
	Iskakov Batyr Zhumataevich 20-099-21-17	Increasing the reliability of power supply by improving the automated control system on the basis of JSC "Dzharkul elevator" (Kostanay region, Fedorovsky district, village Fedorovka).

MONDAY, 05/22/2023

CLOSING CEREMONY OF II INTERNATIONAL SUMMER SCHOOL -2023	
OFFLINE FROMAT	
Final word	
10:00-10:10	Isenov Sultanbek Sansyzbaevich Candidate of Technical Sciences, Associate Professor, Dean of the Energy Faculty Closing remarks and summing up
10:10-10:20	Tatkeyeva Galina Galimzyanovna Doctor of Technical Sciences, corr. member. of NAS RK, Head of the Department of Electric Power Supply
10:20-10:40	Presentation of certificates to participants of the Summer School
10:40-10:50	Initiative presentation of participants with feedback
10:50-11:00	Photoshoot