Personal information

Name	Dmitriy N. Karamov
Date of Birth	14.05.1990
Gender	Male
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Affiliation # 1

University	Irkutsk National Research Technical University (Irkutsk, Russia)
Dates	2016 – present
Position	Assistant professor
Subjects	Theoretical Foundations of Electrical Engineering, energy economics, energy conversion, adequacy of power supply systems

Affiliation # 2

Institute	Melentiev Energy Systems Institute of Siberian Branch of the Russian Academy of Sciences (Irkutsk, Russia)
Dates	2012 – present
Position	Senior Researcher
Department	Thermal Power Systems

Education

Dates	2007 – 2012
Degree	Engineer
Specialty	Power supply
University	Irkutsk National Research Technical University (Irkutsk, Russia)
Dates	2012 – 2016
Degree	PhD (engineering)
Specialty	Electrical Power Engineering Systems and Complexes
Institute	Melentiev Energy Systems Institute of Siberian Branch of the Russian Academy of Sciences (Irkutsk, Russia)
Dates	2016 – 2018
Degree	Master degree (Thermal Engineering)
Specialty	Mathematical modeling and optimization of advanced thermal power plants and machines
University	Irkutsk National Research Technical University (Irkutsk, Russia)

Research Interests

Renewable energy sources (Sun, wind,), autonomous and centralized energy systems, integrated energy systems, energy storage, equipment optimization problems, reliability problems of power supply systems, reconstruction of existing energy systems, energy service contracts, feed-in tariff, climate models, short-term forecasting

Main publications

1. Karamov D.N. Methodology for calculating the lifetime of storage batteries in autonomous energy systems with renewable power generation. Energy Reports, 2020, V. 6, Suppl. 9: pp. 15-24.
2. Karamov D.N. Autonomous renewable energy systems in Russia. Critical review of the current situation. Energy Reports, 2020, V. 6, Suppl. 9: pp. 31-37.
3. Karamov D.N., Naumov I.V. Modeling a Solar Power Plant with Regard to Changes in Environmental Parameters. Power Technology and Engineering, 2020, no. 4: pp. 448-454.
4. Karamov D.N. Integration of the storage battery categorization process into the task of optimizing the equipment of stand-alone energy systems with renewable energy sources. Bulletin of the Tomsk Polytechnic University. Geo Assets Engineering, 2019, vol. 330, no. 5, pp. 113–130.
5. Karamov D.N., Naumov I.V., Perzhabinsky S.M. Mathematical modelling of failures of electrical grid (10 kV) of autonomous energy systems with renewable distributed generation.

Bulletin of the Tomsk Polytechnic University. Geo Assets Engineering, 2018, vol. 329, no. 7, pp. 116-130.
6. Karamov D.N. Formation of initial meteorological arrays with the use of long-term series FM 12 Synop and METAR in systems energy studies. Bulletin of the Tomsk Polytechnic University. Geo Assets Engineering, 2018, vol. 329, no. 1. 69–88.
7. Karamov D.N. Mathematical modeling of solar irradiance based on open access long-term meteorological observation data. Bulletin of the Tomsk Polytechnic University. Geo Assets Engineering, 2017, vol. 328, no. 6, pp. 28–37.
8. Denis Sidorov, Qing Tao, Ildar Muftahov, Aleksei Zhukov, Dmitriy Karamov, Aliona Dreglea, Fang Liu. Energy balancing using charge/discharge storages control and load forecasts in a renewable-energy-based grids. 2019 Chinese Control Conference (CCC), Guangzhou, China, 2019, pp. 6865-6870.
9. Denis Sidorov, Ildar Muftahov, Nikita Tomin, Dmitriy Karamov, Daniil Panasetsky, Aliona Dreglea, Fang Liu, Aoife Foley. A Dynamic Analysis of Energy Storage with Renewable and Diesel Generation using Volterra Equations, IEEE Transactions on Industrial Informatics.
10. Sidorov D., Panasetsky D., Tomin N., Karamov D., Zhukov A., Muftahov I., Dreglea A., Liu F., Li Y. Toward zero-emission hybrid AC/DC power systems with renewable energy sources and storages: A case study from Lake Baikal region // Energies. Vol.13. No.5. ID: 1226. 2020.

Website https://www.researchgate.net/profile/Dmitriy_Karamov

https://www.scopus.com/authid/detail.uri?authorId=57194682820

Participation in international projects

Dates	1. 2019 – 2020 2. 2020 – 2023
Funds	1. Russian Foundation for Basic Research (RFBR) and National Natural Science Foundation of China (NSFC) 2. Russian Foundation for Basic Research (RFBR)
Project	1. Nonlinear dynamical models for wind power system: forecasting and storages control 2. Intelligent integrated energy systems with renewable energy sources and storages: creation of a methodology for the functioning and development of nonlinear dynamic models

Practical experience Development of autonomous photovoltaic systems with storage batteries
settlement: Verhnyaya Amga (Far East, Russia)
settlement: Batamay (Far East, Russia)