DILIYA MURTAZINA

EDUCATION

University of Tennessee, Knoxville 2017-present
Ph.D. in Energy Science and Engineering

University of Illinois, Urbana-Champaign 2015-2017
Master of Engineering in Energy Systems G.P.A.: 3.79/4.00

Lomonosov Moscow State University, Moscow, Russian Federation 2009-2014
Bachelor of Ecology and Environmental Management, *Diploma with Honors* G.P.A.: 4.77/5.00

WORK EXPERIENCE

Oak Ridge National Laboratory Oak Ridge, TN
10/2018-present
Graduate Research Fellow
- Researched greenhouse gas emission estimates from hydropower reservoirs
- Conducted research for HydroWIRES (Water Innovation for a Resilient Electricity System) project funded by the U.S. Department of Energy (DOE) Water Power Technology Office's (WPTO)-Sub-daily flow hydropower impact research
- Performed state-specific water quality standards research for hydropower development (Regulatory Project for U.S. DOE)
- Worked on Spatial distribution of hydropower water quality regulations for hydropower facilities
- Researched Global hydropower assessment and impacts on biodiversity

University of Tennessee Knoxville, TN
08/2017-present
Graduate Research Assistant
- Studying effects of short-term pulsed flows (minutes to seconds) from hydroelectric dams on the environment

Institute for Sustainability, Energy, and Environment (iSEE) Urbana, IL
08/2016-05/2017
Sustainability Intern
- Assisted with the preparation of the recommendations for energy conservation
- Developed the building level energy consumption report of the UIUC campus

Aray Holding Lisakovsk, Kazakhstan
01/2015-08/2015
Environmental Protection Engineer
- Facilitated preparation of monthly, quarterly and annual environmental reports, site environmental permits, and permit renewals
- Developed passport inventory of greenhouse gas emissions, hazardous waste passports, municipal solid waste passports, instructions, and other technical documentation
- Supervised ISO 14001 and waste management programs
- Helped to conclude contracts for the development of the enterprise's environmental projects

Ecology Department of Kostanayskaya region, Control and State Inspection in the Oil and Gas Complex of the Ministry of Energy, Government Institution Kostanay, Kazakhstan
06/2012-08/2012
Auditor Intern
- Performed greenhouse gas emissions accounting for Kostanayskaya region

SKILLS

Software – R programming language, ArcView G.I.S. 3.2a, ArcMap 10.6, STATISTICA 10, eQUEST, S.A.S. Planet, Landsat 8, S.A.M., NDVI, ZEROs, Adobe Illustrator, Minitab 19, J.M.P. Pro.
Languages - English (Full professional proficiency), Russian (Native or bilingual proficiency), Tatar, Kazakh (functional)

PROJECTS

Researching greenhouse gas emission estimates from hydropower reservoirs
Oak Ridge National Laboratory
11/2020-10/2021
Conducting research on spatial and temporal variations of GHG emissions

Examination of the Hydropower Licensing and Federal Authorization Process for U.S. DOE
Oak Ridge National Laboratory
05/2019-10/2021
Assisting the U.S. Department of Energy (DOE) Water Power Technology Office's (WPTO) Hydropower Regulatory study entitled "Examination of the Hydropower Licensing and Federal Authorization Process" co-led by National Renewable Energy Laboratory and Oak Ridge National Laboratory
Working on the spatial distribution of hydropower water quality regulations for hydropower facilities by the Water Power Program (funded by the DOE)
Worked on conducting a global resource assessment of energy potential at non-powered dams and potential biological effects

Global hydropower assessment and impacts on biodiversity
Oak Ridge National Laboratory
10/2018-03/2019
Studied environmental effects of hydroelectric and non-powered dams on the habitats

Building level energy consumption report (Illinois Climate Action Plan)
Institute for Sustainability, Energy, and Environment (iSEE) UIUC
08/2016-05/2017
The goal of the report was to display "past-current-new" patterns of energy conservation change. The result was a paper with recommendations on how to motivate people to be more sustainable. The data for FY08-FY2016 was used. The scope of the project is 175 buildings at the UIUC campus. Then there was a pilot project about the Lincoln Hall. After Lincoln Hall, the work was started with the Soybean National Laboratory and the Illini Union

Analysis of environmental effects of the operation of Space-Based Solar Power System
The University of Illinois at Urbana-Champaign
09/2015-12/2015
Assessed effects redirecting sunlight from outer space to Earth as energy through microwaves

Landscape-Ecological factors for Agricultural Production L.L.P. Saryagash
Lomonosov Moscow State University
08/2013-05/2014
Built a model to monitor the influence of various factors on annual yield of hard and soft wheat (ArcView G.I.S. 3.2a, Landsat 8 (American Earth observation satellite), STATISTICA 10, S.A.S.
Planet, Google Earth)

RESEARCH INTERESTS

Landscape Ecology, Renewable Energy, Conservation Biology, Data Mining, Data Science, Hydrology, Sustainability

PUBLICATIONS

- A. Khoroshev, K. Tkach, **D. Murtazina**. Influence of landscape pattern on the productivity of grain crops in the steppe zone of northern Kazakhstan. *Ambassador of Moscow University*. Series 5. Geography. 2018. № 3. p.62-69 (Moscow, Russian Federation)
- 2014 X International Conference for Students and Young Scientists Lomonosov (Astana, Kazakhstan) Ecology publication - Landscape-Ecological Factors for Agricultural Production
- 2012 VIII International Conference for Students and Young Scientists Lomonosov (Astana, Kazakhstan) Ecology publication - Projecting Landscaping Opportunities Around District Water Reservoir (Kostanayskaya region)

AWARDS, FELLOWSHIPS, GRANTS

- **Bredesen Center Graduate Research Fellowship**, with tuition waiver and stipend- ($47,155/year) 2017-present
- **State Grant of the Republic of Kazakhstan**, with tuition waiver and stipend - ($5,750/year) 2009-2014

HONORS

- Gamma Beta Phi Honor Society member 2018
- Diploma with Honors, Bachelor of Ecology and Environmental Management, Lomonosov Moscow State University 2014
- Invited as the Moscow State University's student representative in the meeting with President of the Republic of Kazakhstan, Nursultan Nazarbayev, during his visit to Moscow, Russian Federation 2013

PROFESSIONAL CERTIFICATIONS/TRAINING

NASA's Applied Remote Sensing Training Program
"Hyperspectral Data for Land and Coastal Systems"
Issued date and expiration date of the certification - Issued Mar 2021, No Expiration Date

Using Descriptive Statistics to Analyze Data in R
Issuing authority: Coursera
Issued date and expiration date of the certification - Issued Sep 2020, No Expiration Date
Credential ID: 993XF7T87EH8

Building and analyzing linear regression model in R
Issuing authority: Coursera
Issued date and expiration date of the certification - Issued Sep 2020, No Expiration Date
Credential ID: 247CEUS6ED3H

Build Data Analysis tools using R and DPLYR
Issuing authority: Coursera
Issued date and expiration date of the certification - Issued Sep 2020, No Expiration Date
Credential ID: P8ZZ4T7P2Z6L

Certificate of Completion - Advanced Analytics and Data Mining
Issuing authority: Center for Renewable Carbon, The University of Tennessee, Knoxville
Issued date and expiration date of the certification - Issued Feb 2020, No Expiration Date

PROFESSIONAL ORGANIZATIONS

- Association for Women in Science (AWIS)
- American Association for the Advancement of Science
- The Association for the Sciences of Limnology and Oceanography (ASLO)
- Ecological Society of America
- Gamma Beta Phi - Honor Society
- WiSTAR3 at UTK-Women in STEM Advancing Research Readiness and Retention
- American Academy of Environmental Engineers and Scientists

PUBLIC SERVICE

Gamma Beta Phi National Honor Society Convention   February 2020

- Created attire for kids from Children Centers in South Carolina
- Painted bandanas and leashes for Animal Centers in South Carolina