**Irina Tsiryapkina**

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90 Brentwood St, Lakewood, CO, 80226

**Education**

**Master of Energy Systems Engineering** May 2019

* **Fulbright Scholar** GPA (4.0/ 4.0)

University of North Dakota (UND),Grand Forks, ND

**Master of Information Systems and Technologies** Aug. 2016

**Bachelor of Information Systems**  GPA (5.0/ 5.0)

Siberian State Industrial University**,** Novokuznetsk, RussiaJuly 2014

GPA (5.0/ 5.0)

**Relevant coursework:**

* Master thesis “Technology and Economy Analysis of Waste Truck Tires Management for a Coal Transportation Company”
* Air Pollution Control, Geothermics, Fuel Technologies, Energy Systems Engineering, System Dynamics - UND

**Related Experience**

**Intern at Strategic Energy Analysis Center** June 2019 – present time

* I work on the documentation for a new NREL model “Waste-to-Energy Systems” (WESyS)
* Conducted the sensitivity analysis for WESyS to understand influence of multiple-technology investments, oil price and maturity multipliers on Hydrothermal Liquefaction (HTL) take off
* I work on implementation of carbon price concept in Biomass Scenario Model (BSM)
* I work on harmonization of BSM and Global Change Assessment Model (GCAM) for the future analysis done by two models

**Temporary Research Lab Assistant** June 2018 – Aug. 2018

Institute for Energy Studies, University of North Dakota, Grand Forks, ND

* Displayed the adaptability to operate in a new sphere while working on a geothermal energy project
* Demonstrated the ability to work within an international team while collaborating with a foreign graduate student on economical evaluation of Enhanced Geothermal System for Williston Basin, North Dakota
* Conducted sensitivity analysis of CREST economic model for a geothermal energy project, resulting in different values of cost of energy

**Engineer**

University R&D Center of Control Systems**,** Novokuznetsk, Russia Aug. 2014 – June 2017

* Illustrated teamwork skills when preparing project and working documentation alongside engineering colleagues for employees of coal enrichment plants
* Designed connecting diagrams and links-up in control cabinets
* Took part in the commissioning of two coal enrichment fabrics in Kemerovo region
* Developed modules installation schemes in PLC
* PLC programming

**Research Assistant** Jan. 2015- June 2016

**Laboratory Assistant** Nov. 2012-Apr. 2013

Siberian State Industrial University,Novokuznetsk, Russia

* showed problem solving skills when cooperated with a team of people having different background and sphere of interests, resulting in obtaining a registration of a software complex for identification of full-scale material structures (samples of steel) with fractal models
* analyzed methods of full-scale material structures identification with fractal models
* preparation of raw data on steel samples into suitable format for model identification
* wrote publications and report’s section
* illustrated verbal communication skills when presented the results of the project at the international exhibitions “Russian Coal and Mining”, “EXPO Ugol”, resulting in receiving diplomas and gold medal.

**Skills**

**Language skills:** Russian (Native); English (C2 - Proficient); Spanish (A1 - Beginner)

**Computer skills:** Microsoft Office products (Word, Excel, PowerPoint, Outlook, Teams);

Visualization: Tableau, OmniGraffle

Programming languages: Python, C# (Visual Studio);

System Dynamics: Ventity;

Omron CX-One, See Electrical;

Wonderware Intouch; ERwin Data Modeler r7

**Leadership Experience**

**Group Monitor**  2010 - 2016

Siberian State Industrial University**,** Novokuznetsk, Russia

**Stretching Instructor**  2015 - 2017

Dance group “BeOneDance”**,** Novokuznetsk, Russia

**Rhythmic Gymnastic coach** 2012 - 2017

Dance studio “Igra”**,** Novokuznetsk, Russia

**Community Involvement**

**Clubs:** Toastmasters at NREL, Golden, CO June 2019- present time

Learn Spanish over the lunch at NREL, Golden, CO January 2020- present time

**Volunteer**: Tango festival “Tango on the Rocks”, Denver, CO Sept 2019

North Dakota Museum of Art, Grand Forks, ND June 2018-present

“Feed the Children”, Oklahoma City March 2018

UND Aerospace Anniversary, Grand Forks, ND fall 2017, winter 2019

Dancer at Musical Theatre “7 Utro”, Novokuznetsk, Russia 2014 - 2017

International tour to Israel as a Dancer of Musical Theatre “7 Utro” June 2014; Dec. 2016

**Awards**

**Fulbright Scholarship winner 2017-2019 (VGS)** 2017

**The Russian President scholarship winner** 2015

**2nd place at the regional competition “The best original research work”** 2015

**Gold medal and diploma at the contest**

**«The best exhibit» of XXI International specialized exhibition “Russian Coal and Mining”**  2014

**Certification**

**Professional retraining program “Interpreter in the sphere of professional**  2012 - 2015

**communication (English Language)”**. GPA (4.8/ 5.0)

Siberian State Industrial University,Novokuznetsk, Russia

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| **Master of sport of the Russian Federation in Rhythmic Gymnastics** | since 2006 |

**USA**

Presentations:

1. “Geothermal And Electric Power Analysis Of Horizontal Well Fields”, authors: Will Gosnold, Sidike Abudureyimu, Irina Tsiryapkina, Dongmei Wang, Hossein Salehfar, and Michael Mann, data/place: April 9-10, 2019 – AAPG European Region, 3rd Hydrocarbon Geothermal Cross Over Technology Workshop, Geneva, Switzerland

2. “Geothermal and Electric Power Analysis of Horizontal Well Fields”, authors: Will Gosnold, Sidike Abudureyimu, Irina Tsiryapkina,

Dongmei Wang, and Mark Ballesteros, data/place: Sept 15-18, 2019 - Geothermal Resource Council Annual Meeting & EXPO, Palm Springs, CA

**Russia**

List of publications:

1. Starovatskaya S.N., Myshlyaev L.P., Tsiryapkina I.V. Materials structure description by fractal complex; External fields processing and treatment technology and preparation of nanostructure of metalls and alloys: Book of the International seminar articles; Novokuznetsk; 2014. – Pp. 348.

2. Problem statements of material structure identification by fractals; Proceeding of IX Russian scientific and practical conference “Automation systems in education, science and industry”. – Novokuznetsk, 2013. – Pp. 400-403.

http://library.sibsiu.ru/LibrPublicationsSectionsPublicationsFiles.asp?lngSection=70&lngPublication=161

3. Starovatskaya S.N., Myshlyaev L.P., Tsiryapkina I.V. Fundamental problems of modern material science; Methods of structure identification by fractals; Barnaul; – No. 3, part 11, 2014. – Pp. 290-293;

http://www.nsmds.ru/journal/706.html

4. Fryanov V.N., Myshlyaev L.P., Tsiryapkina I.V. Application of fractal models in natural structure properties estimation // Proceeding of XVI International scientific and practical conference “Energy security of Russia. New methods of development in coal industry”. – Kemerovo, 2014. – Pp.157-160.

http://www.spsl.nsc.ru/FullText/konfe/%D0%9A%D0%9C%D0%A3%D0%A4-2014prg.pdf

5. Myshlyaev L.P., Tsiryapkina I.V. Development of identification procedure for full-scale structures based on fractal generation// Proceeding of X Russian scientific and practical conference “Automation systems in education, science and industry”. Novokuznetsk; 2015;

http://library.sibsiu.ru/LibrPublicationsSectionsPublicationsFiles.asp?lngSection=70&lngPublication=221

6. Myshlyaev L.P., Tsiryapkina I.V. Methods of full-scale structures identification. Proceeding of IV Russian scientific and practical conference involving international partnership “Modeling and high-end information technologies in education, science and industry”, Novokuznetsk, 2016;

http://library.sibsiu.ru/LibrPublicationsSectionsPublicationsFiles.asp?lngSection=92&lngPublication=226

7. Myshlyaev L.P., Tsiryapkina I.V. Identification of dynamic pattern of fractal dimension at failure of rock. High technologies of development and use of mineral resources: proceedings of International scientific and practical conference”. Novokuznetsk; 2016.- Pp.101-105.;

8. Myshlyaev L.P., Tsiryapkina I.V., Tsiryapkina A.V. Identification of full-scaled structures based on closed-loop dynamic systems. High technologies of development and use of mineral resources: proceedings of International scientific and practical conference”. Novokuznetsk; 2016.- Pp.135-138.

9. Myshlyaev L.P., Tsiryapkina I.V. Procedure of identification of full-scaled structures based on fractal generation. High technologies of development and use of mineral resources: proceedings of International scientific and practical conference”. Novokuznetsk; 2017.- Pp.97-101.

Projects:

1. On-going project No. 15-07-02231 funded by the Russian Foundation for Basic Research. Project name “Development of the approach, methods and algorithms for identification of complex objects structures based on closed dynamic systems”. Member of the research team. Position – engineer.

2. Project No.14.B37.21.0391 funded by the Russian Foundation for Basic Research. Project name “Models and methods of service and project process control for information systems and automation”. Member of the research group. Position – laboratory assistant.

Patent:

1. Registration of computer program “Identification of full-scale structures of materials by fractal models” No 2014661562.The right-holder: Federal state budget educational institution of high professional education “Siberian State Industrial University”. Authors: Tsiryapkina Irina Vladimirovna (RU), Starovackaya Svetlana Nikolaevna (RU), Myshlyaev Leonid Pavlovich (RU). Application No 2014619064. Receipt date of the application September 9,2014. Date of State Registration in the Register of Computer Programs October 30, 2014.

Other Awards:

2016

* Certificate of IV Russian scientific and practical conference involving international partnership “Modeling and high-end information technologies in education, science and industry” for the report “Methods of full-scale structures identification”, 12-15 April;
* Certificate for granted journey Moscow and Saint-Petersburg from administration of Kemerovo Region for active civil position, excellence in studies and creative activities;

2015

* Awarded scholarship of the Russian President for excellence in studies.

Certificate of honor for the 2nd place at the regional competition “The best original research work” in the category “Information technologies”.

* Certificate of honor from administration of Kemerovo Region for achievements in studies, active scientific work and development of student government.
* Certificate of honor from the Rector of Siberian State Industrial University for excellence in scientific research.

2014

• Gold medal and diploma at the contest «The best exhibit» of XXI International specialized exhibition “Russian Coal and Mining” (Novokuznetsk) for development of the hardware and softwarecomplex for monitoring and forecasting parameters of interacting gasdynamic and geomechanical processes in underground mining of coal deposits.

• Diploma of International exhibition “EXPO-Ugol” (Kemerovo) for the report “Fractal models in the problems of estimation of rock structural properties”.

• Diploma of II degree from the administration of Novokuznetsk at the competition “The best student of the year 2014” in the category “R&D work” held by city administration.

• Diploma of 1st place winner at the university competition “The best student of the year 2014” in the category “R&D work in technical sciences” held by Siberian State Industrial University.

• Certificate of honor from the Rector of Siberian State Industrial University for achievements in scientific research.

2013

* Gratitude letter from the Governor of Kemerovo Region for professionalism, active civil position, excellence in studies and creative activities, sport and personal contribution into realization of non-government initiatives in Kemerovo region and the celebration of the Russian Youth Day.
* Certificate of honor from the Rector of Siberian State Industrial University for achievements in scientific research.
* Certificate of honor from the Rector of Siberian State Industrial University for excellence in studies.

2012

* Diploma of Siberian State Industrial University for creative initiative and active participation in cultural life of the university.

2011

* Certificate of honor from administration of Kemerovo Region for hardworking, achievements in research, creative work and social activities, for personal contribution into development of the youth initiatives in Kemerovo Region.

Letter of Gratitude from Siberian State Industrial University for excellence in studies.