



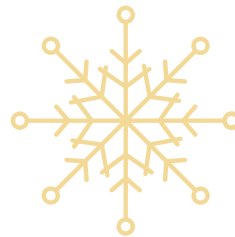
RESEARCH NEWSLETTER

OFFICE OF THE PROVOST - RESEARCH ADMINISTRATION
QUARTERLY NEWSLETTER



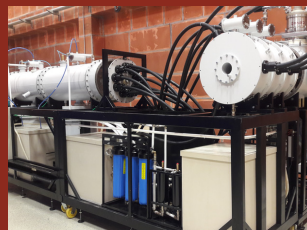
In this issue:

- Excellence Awards 2018 ... 2, 11, 19, 22, 24
- NU researchers publish in prestigious academic press ...3, 4, 9
- Joint research projects ...6, 7, 10, 21
- Collaborative project proposals ...12, 24
- Student Research ...14, 15, 24
- Conferences and Forums ...11, 12, 13, 16, 20, 23, 25, 26
- Travels and site visits ...17, 25
- New publications ...27
- NU research activity overview ...30
- Funding Opportunities ...31



AWARDS

NU wins prizes at national and international events



NEWS

Research news of NU Schools and NLA



SCIVAL.COM

Up-to-date NU research performance evaluation



GRANTS

International funding opportunities to apply for

School of Science & Technology news

Scopus Award Ceremony 2018

On November 13, the «Scopus Award 2018» ceremony was held for the first time in Kazakhstan. The researchers who have demonstrated great results in their research activity over the last year were awarded for their invaluable contributions to the development of science in Kazakhstan. The event was organized by the authoritative academic publisher Elsevier. All candidates were selected on the following criteria:

- Quality and number of publications
- Nature and uniqueness of research
- Outcomes of research
- Impact on society
- Vision of the researcher

In total 26 winners across nine scientific disciplines have been announced, among them 3 awardees are from Nazarbayev University.



Aliya Ospanova, Abay Baigenzhin, Almas Shintemirov, and Tayfun Basal



Almas Shintemirov
1st prize - "Top Researcher in
Engineering and Technology"



Suragan Durvudkhan
2d prize - "Top Researcher in
Natural Sciences"



Timur Atabaev
"Young Researcher Award"

The program aimed to honor researchers who are building their careers in academic research and help them gain recognition for their work.

School of Humanities & Social Sciences news

Dr. Helene Thibault publishes her book



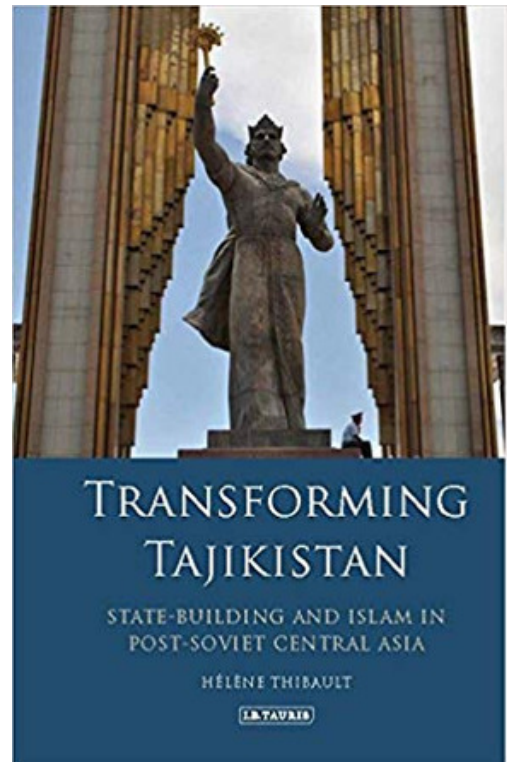
Professor Helene Thibault

SHSS Assistant Professor Helene Thibault authored a book titled “Transforming Tajikistan: State-building and Islam in Post-Soviet Central Asia”. In the book she explores the transformation of the state structures under the influence of Soviet ideology and the formation of national identity in Tajikistan. She particularly concentrates on the coexistence of two ideologies within the country: secularism and religion, which raises several interesting discussion points. On the one hand, the government of contemporary Tajikistan sees religion as a potential threat to social order that might hinder socio-economic development of the country.

On the other hand, religious revival can be totally justified as it provides people a way to survive in a society characterized by poverty, corruption, limited political liberties and economic opportunities. It is important to note that the study can be considered as one of its kind, since it was conducted before the government of Tajikistan imposed restrictions on religion in 2015. Almost over a year, Dr Thibault conducted an ethnographic study in the north of Tajikistan, where she fully immersed in their local communities. She interviewed both religious and non-religious people, as well as conducted formal interviews with representatives of the state, official clergy, and political parties.

The given material is based on the book interview (Voices on Central Asia, 2018)

The full interview is available [here](#).



Professor Helene Thibault

FYI, the book is already in our NU Library.

Political Science professors publish in prestigious academic press

SHARED BY DR. ALEXEI TROCHEV

Dr. Mwita Chacha has co-authored with Jonathan Powell and Gary Smith (both from the University of Central Florida) a research article titled "Failed coups, democratization, and authoritarian entrenchment: Opening up or digging in?" in the journal *African Affairs*. Having analyzed military coup d'état in five African countries, Dr. Chacha and his co-authors argue that failed coups do not provide a significant boost to democratization.



Dr. Mwita Chacha

Instead, failed coups are more likely to reinforce the country's previous political trajectory and provide a policy boost for both incumbent Democrats and autocrats by outing their opponents and providing a pretext for their removal. He also co-authored with Yoshiharu Kobayashi (University of Leeds) a research article titled "Migration and Public Trust in the Commonwealth of Independent States" in the journal *Regional & Federal Studies*. They examine how perceptions towards migrants and employment status affect public trust in the CIS.



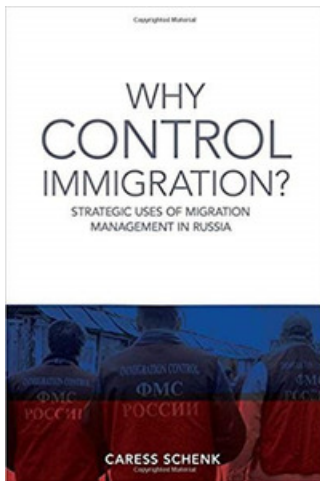
Dr. Alexei Trochev

Dr. Alexei Trochev has recently published a research article "Patronal politics, judicial networks and collective judicial autonomy in post-Soviet Ukraine" in the *International Political Science Review*, a journal of the International Political Science Association. He explores the informational and mobilizing practices of judicial associations in post-Soviet Ukraine, a country with a large number of these associations, varying numbers of ruling patronage networks and two attempts at the abolition of the Supreme Court, in order to explain how and why competitive politics with vibrant judicial associationalism may fail to entrench judicial independence. He has also co-authored with Peter Solomon (University of Toronto) a research article "Authoritarian constitutionalism in Putin's Russia: A pragmatic constitutional court in a dual state" in *Communist and Post-Communist Studies*. It analyzes the successful adaptation of the Russian Constitutional Court to an increasingly authoritarian regime under President Vladimir Putin. It argues that the key to its success lay in its pragmatic approach, whereby the Court decides cases that matter to the regime in a politically expedient way, while giving priority to legal and constitutional considerations in other cases, thereby recognizing the reality of a dual state.



Dr. Charles Sullivan

Dr. Charles Sullivan has recently published an article in the *Asia Policy* entitled "Kazakhstan at a Crossroads". This essay examines Kazakhstan's latest economic modernization campaign, highlights its shortcomings, and proposes how the West could assist the country's ruling elite in carrying out reforms to complement the modernization process.



Dr. Caress Schenk published "Why Control Immigration: Strategic Uses of Migration Management in Russia" with Toronto University Press. In it, she demonstrates how migration politics in Russia utilizes the political rhetoric of a populist social contract alongside patronage relationships to manage countervailing interests throughout the political system. This multi-level balancing act demonstrates the importance of high-level politics, institutional interests and constraints, and the conditions under which government actors at all levels can pursue their own interests as the state seeks political equilibrium.

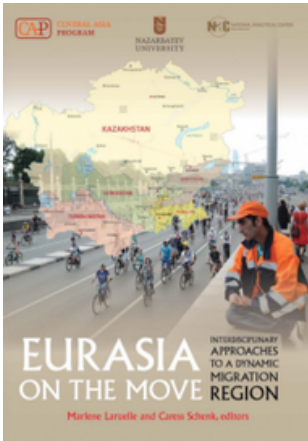
FYI, the book is already in our NU Library

Dr. Schenk also published the "The crisis mentality of Russian migration management" in the *Oxford Handbook of Migration Crises*, edited by Cecilia Menjivar, Marie Ruiz, and Immanuel Ness. The chapter argues that crisis is more of a mindset than a reality in the case of Russian migration. While migration is indeed framed as a crisis, often attention is given to substitute or invented crises which creates continued crisis feedback loops that reinforce short-term policy horizons and fails to address long-standing demographic and labor market problems related to migration.



Dr. Caress Schenk

She also contributed to the book chapter. "Anti-migrant, but not nationalist: Pursuing statist legitimacy through immigration discourse and policy." to the edited volume *Russia Before and After Crimea: Nationalism and Identity, 2010-2017*, edited by Pål Kolstø and Helge Blakkisrud. Edinburgh: Edinburgh University Press. The chapter explores the rhetoric of Russian President Vladimir Putin in relation to migration and argues that he is careful to separate migration from national identity, creating a rhetoric that can be used to enfranchise disparate groups.



Dr. Schenk also co-edited a book "Eurasia on the Move: Interdisciplinary Approaches to a Dynamic Migration Region" with George Washington University Professor Marlene Laruelle, and published a PONARS Policy Memo titled "Russian Immigration Control: Symbol Over Substance." She discussed these complex issues in a video podcast, produced by Voices on Central Asia, where she discussed Central Asian migrants in Russia.

[For more information proceed here](#)



Dr. Schenk at the International seminar

In November 2018, Dr. Schenk spoke at the seminar on the "Issues of Ethnicity and Religiosity in the Modern Mentality: Methodology and Research" which was organized by the Academy of Public Administration with the cooperation of the Assembly of the People of Kazakhstan. She explained the logical mistakes that arise when talking about the relationship between migration and extremism, and how to avoid them.

[For more information proceed here](#)

SHSS faculty begin work on an externally-funded research project on post-Soviet incarceration

Gavin Slade and Alexei Trochev are Co-Investigators in the three-year project "In the Gulag's Shadow: Producing, Consuming and Perceiving Prisons in the Former Soviet Union" which is led by Professor Laura Piacentini (University of Strathclyde) in collaboration with researchers from the Higher School of Economics (St. Petersburg) and funded by the Economic and Social Research Council, the United Kingdom's main funder of research and training in economic and social sciences. This is the first systematic, theoretical and cultural study, in the world, of post-Soviet incarceration. This unique project aims to map prison rates, prison conditions and processes of penal policy in the former Soviet Union; analyze contemporary social attitudes to punishment, and interrogate how representations of punishment constitute a symbolic site through which cultural understandings of history, political power, and citizen-state relationships are formed. Professors Slade and Trochev will collaborate with experts from the Alzhir Memorial and Museum Complex, Karaganda State University and the Almaty-based Legal Policy Research Center.



[For more information on this research proceed here](#)

SHSS faculty complete the first-ever International Crime Victims Survey in Kazakhstan



In October 2018, in collaboration with a team of world-renowned Dutch researchers (Dr. Jan van Dijk and Dr. John van Kesteren) from the University of Tilburg, Gavin Slade and Alexei Trochev have presented to Ministry of Internal Affairs the findings from the International Crime Victims Survey (ICVS) in Kazakhstan. This survey, the first of its kind in the country, is a part of standardized surveys analyzing the household experience of common crime in different countries. The survey was funded by the European Union project on Enhancing Criminal Justice in Kazakhstan and was conducted in June 2018 by the Almaty-based BRIF polling company. Based on the analysis of a stratified random sample of 4,000 respondents, the researchers found that only one out of five crime victims had reported about it to police and that only a third of those who had reported had been satisfied with the way police had dealt with them. These findings have important implications for the challenges facing Kazakhstan's police reforms as announced by President Nazarbayev in November 2018.

[ICVS in Russian is available here](#)

SHARED BY DR. ALEXEI TROCHEV

Planting Trees in the Steppe: A Long History

Considerable efforts are being made to plant trees in and around Astana to make life in the city more comfortable. In a recently published essay for a major American university press, David Moon, a visiting professor of History of the School of Humanities and Social Sciences, explores the prehistory of efforts to plant trees in the steppes in the Russian Empire in the eighteenth and first half of the nineteenth centuries.

Professor Moon's essay investigates why, in the wake of the Russian annexation of the Eurasian steppe, the Russian imperial authorities and the settlers they sponsored insisted on and persisted in planting trees in the region in spite of the unsuitable environment (Moon, 2018). The Eurasian steppe was immense, largely flat, semi-arid, windy grassland with alkaline subsoils, where few trees grew naturally outside river valleys and ravines. In explaining the insistence on tree planting in such conditions, Moon considers both cultural factors—trees and forests are central to Russian identity—and practical reasons—Russians and other Slavic peoples have used wood and timber for many everyday needs. The settlers in the steppe included Germanic peoples, for whom trees and forests have also been important.

Moon argues that, when people from largely forested environments—the Russian heartland, the north of present-day Ukraine and German lands—moved to the treeless steppe in large numbers from the turn of the eighteenth century, they took with them their practices of using forest products to meet many practical needs, and also a preference for wooded landscapes. They were further influenced by contemporary arguments that forests had wider environmental benefits in moderating the climate.



Botanical Garden, Astana

Over time and with considerable effort and research, forestry scientists identified which species of trees are best suited to steppe conditions and worked out appropriate techniques to plant and cultivate trees. The difficulties remain, but we can see the results of more recent tree planting on the campus of Nazarbayev University, in the nearby Astana Botanical Garden, the boulevards of the city, and the greenbelt that surrounds the capital of Kazakhstan.



Monument to Tsar Peter I of Russia in Taganrog, Russia, where he is reputed to have ordered an oak forest to be planted in 1696.

PREPARED BY DR. DAVID MOON
VISITING PROFESSOR, HPRS,
SHSS

School of Mining & Geosciences News

Hydrothermal systems, water-rock interactions, and the emergence of life on Earth



*Carbonate chimneys of the Lost City
Hydrothermal Field*

Following the discovery of the first hydrothermal vents on the Galápagos Ridge in 1977, Corliss et al. (1981) formulated a hypothesis according to which ancient marine hydrothermal systems on the primitive Earth may have been the site for the emergence of life. Subsequent experimental and theoretical studies have come into support of this hypothesis. The abiotic synthesis of organic compounds from inorganic precursors (CO_2 , NH_3 , H_2S) in hydrothermal systems requires conditions that are both reducing and alkaline. The discovery of the Lost City hydrothermal field on the mid-Atlantic Ridge in 2000 provided a unique opportunity to sample rocks and fluids with such characteristics. This week, a publication in *Nature* by Professor Bénédicte Ménez (Institut de Physique du Globe de Paris), reports the discovery of abiotic amino acids in hydrothermally altered ultramafic rocks of the Lost City massif.

Using high-resolution microscopy techniques, tryptophan and other amino acids have been identified in an iron-rich saponite (a clay mineral), which may have catalyzed the abiotic formation of these amino acids.

Laurent Richard, an Associate Professor at the School of Mining and Geosciences and a co-author on this paper, is collaborating with Bénédicte Ménez on the stability of organic compounds in deep crustal rocks, as part of a project sponsored by the Deep Carbon Observatory. <https://deepcarbon.net/>

An article describing this research in more details can be viewed [here](#)

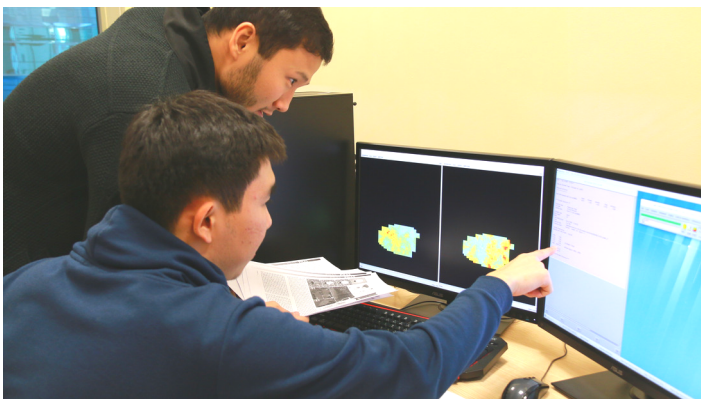
SHARED BY DR. LAURENT
RICHARD

A joint project between SMG researchers and ERG

Dr. Nasser Madani, Dr. Laurent Richard and two graduate students from the School of Mining and Geosciences, Nurassyl Battalgazy and Yerniyaz Abildin, will be engaged in a research project with the Research and Development Engineering Center of Eurasian Resources Group.

The team will start conducting a 3D spatial estimation and modeling of the distribution of iron in the Shubarkol coal deposits from October 29th, 2018 to July 29th, 2019. Data provided by ERG, including geological reports, cross-sections, legacy borehole data, and elemental compositions and densities of coal samples, will be used to develop the 3D model. The research will be carried out using the ISATIS and DATAMINE software already available at the School of Mining and Geosciences.

The outcomes of this research will be used by ERG for the development of mine planning.



SMG students working on the project



Dr. Nasser Madani

Nazarbayev University School of Mining and Geosciences was founded in 2016. The aim of the School is to educate specialists in the fields of mining engineering, petroleum engineering, and exploration geology. The School of Mining and Geosciences offers both undergraduate and graduate programs.

PREPARED BY GULNAZ ABISHEVA

School of Engineering News

Research Excellence Award for Early Career from Korea Concrete Institute



Dr. Deuckhang Lee receiving the award

Dr. Deuckhang Lee (DK Lee), an Assistant Professor in the Department of Civil and Environmental Engineering at NU, received the Research Excellence Award for Early Career from Korea Concrete Institute (KCI) in Nov. 2018. This award is given to a project that demonstrates excellence in concrete engineering, and stands out above all other entries.

Joint NU - SNU Mini-Symposium on the Design and Analysis of Innovative Structural and Geotechnical Systems



List of participants:

*Deuckhang (DK) Lee, Assistant Professor
Jong Kim, Professor
Dichuan Zhang, Assistant Professor
Sung Moon, Assistant Professor
Didier Talamona, Associate Professor
Enlana Satekenova, Research Assistant
Saule Tulebekova, Research Assistant
Meirzhan Yezhanov, MS Student
Aidana Agibayeva, MS Student*

Joint NU - SNU (Seoul National University) Mini-Symposium on the Design and Analysis of Innovative Structural and Geotechnical Systems was held at the international conference titled ACEM18/STRUCTURE18 in Songdo, South Korea. This big event provided a great opportunity to introduce our research conducted at the Department of Civil and Environmental Engineering and was also one of the most successful sessions in this conference. During this event, NU Faculty members and graduate students delivered seven presentations sharing their research findings.

PREPARED BY DR. DK LEE

The VI Forum of Mechanical Engineers of Kazakhstan

On September 20, a delegation from Nazarbayev University participated in the VI Forum of Mechanical Engineers of Kazakhstan. Prof. Christos Spitas was invited to open the session on Defence and Optoelectronic Engineering, where he presented the research agenda of the Smart Structures and Machine Systems/Space Technology Research Group at Nazarbayev University. The session was chaired by the Vice-Minister for Defence and Aerospace Industry, Prof. Marat Nurguzhin.



Vice-Minister of the MDAI Marat Nurguzhin (left) and Christos Spitas (right) at the end of the session



Ph.D. candidate Andas Amrin (left), Director of the Electronics Industry Development Department of the MDAI Janibek Mukhamedzhanov (middle) and Christos Spitas (right) before the event

Collaborative project proposals

In collaboration with the Kazakh Defence and Space Industry, in the recent grant calls by the Ministry of Defence and the Ministry of Defence and Aerospace Industry in November 2018 the research group prepared and submitted four research grant proposals, headed by Boris Golman, Zhandos Utegulov and Christos Spitas, with participation of 17 members of faculties from the disciplines of materials science, physics, mechanical engineering, electrical engineering, civil engineering and chemical engineering.

The topics of the proposals were as follows:

- Development of tunable-frequency lasers for range-finding, 3-d mapping and telecommunications and supporting systems for attitude control, aiming and vibration suppression
- Development of centrifugal additive manufacturing and self-sintering technologies for the synthesis of fine ultra-high temperature ceramic powder composites for military applications
- Development of advanced laser-driven and ballistic technology for comprehensive multi-scale testing of armor materials
- Development of engineering model and multiscale composite structure for Earth Remote Sensing Satellites (RSS) of ultrahigh resolution

These project proposals were co-developed with industrial partners Ghalam, Paramount, and Tynys, attracting a co-funding by the partners of 110 million KZT in addition to the requested state funding.

Currently, the group is running several more projects funded by Nazarbayev University and the Ministry of Education and Science on novel smart materials and structures, novel characterization methods, manufacturing methods, and space technologies.

Discussions with Kazakhstan Engineering

After an invitation by the Ministry of Defence and Aerospace Industry, in late November 2018, the group has entered talks with the major state holding company Kazakhstan Engineering, having companies such as Paramount and Tynys in its portfolio, with the prospect to establish a long-term funded research programme at Nazarbayev University. The programme will focus on Smart Structures and Machine Systems, including novel multifunctional structural materials, honeycombs and armours, self-sensing structures and machines, integrated earth remote sensing satellite systems, mechanisms and powertrains, novel manufacturing methods, and a host of enabling technologies, building on the multidisciplinary expertise and research agendas of the 25 members of the group.

[More information about the research group's profile and activities can be found here](#)

SHARED BY PROF. CHRISTOS SPITAS

Researchers at the School of Engineering aim to mimic Anterior Cruciate Ligament (ACL) structure at the knee



Ainur Zhanbassynova

Ainur Zhanbassynova, an undergraduate student in the Department of Chemical and Materials Engineering, under the supervision of Associate Prof. Cevat Erisken characterizes anterior cruciate ligament (ACL) tissue harvested from cow using transmission electron microscopy (TEM). Anatomically, bovine ACL tissue is similar to that of the human and represents a reliable model.



Prof. Cevat Erisken

ACL is the most commonly injured knee ligament, with more than 200,000 ACL ruptures observed annually in the United States only. Unfortunately, ACL injuries do not heal themselves due to avascular structure and extended motion. Current clinical approaches (grafting is the gold standard) do not regenerate the tissue, yet only serve as a mechanical support. Regenerative engineering is seen as an alternative approach to solve this significant clinical problem. Several previous studies performed on ACL demonstrated that ACL injuries are followed by significant structural deformations, including reduced collagen fiber diameter and a shift of fiber diameter distribution from bimodal to unimodal distribution. We, at the School of Engineering, aim to fabricate fibrous structures to serve as scaffolds that will mimic the structure of healthy and injured ACL tissues and eventually host ligament cells, namely, fibroblasts. To this end, Ainur harvested a healthy ACL tissue from bovine, and measured collagen fibril diameter as part of her coursework (Figure 1 below).

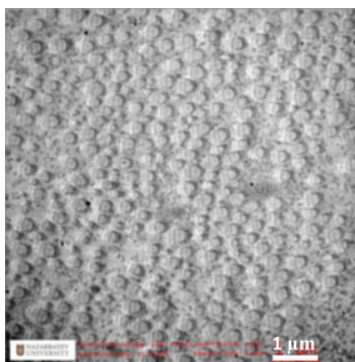
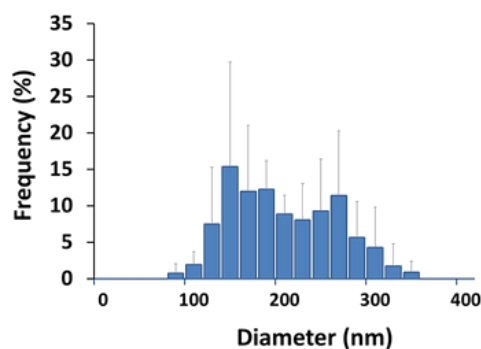


Figure 1. TEM image of ACL tissue harvested from cow and respective collagen fibril diameter distribution.



The team will also develop an animal model for injured ACL tissue and evaluate collagen fibril diameter distribution. Next, biomimetic nanofiber scaffolds will be produced by electrospinning and fibroblasts will be cultured on these scaffolds to understand how the cells behave differently in injured tissues.

This will provide valuable information to direct cell behavior in the case of ACL injuries for healing or regeneration.

Electrical and Computer Engineering Students Achievements

SHARED BY PROF. ALEXANDER RUDERMAN

The paper titled "Dual Output Switched Capacitor Converter Model for Cross Regulation Effects" co-authored by NU 2nd and 4th year (at the submission time) undergraduate students Yerzhan Mustafa and Ainur Zhaikhan was published in prestigious IET Electronics Letters journal, that provides a rapid and competitive forum for the latest, significant research advances.

The final decisions on manuscripts were made in six weeks. Two to four weeks after the decision, the paper was published in print and online versions, and had an acceptance rate of 25%.

In 2018, Yerzhan Mustafa spent his summer interning at the University of Macau, where he was working in Key State (China) Analog and Mixed-Signal VLSI Lab under the supervision of Prof. Yan Lu. He recently attended a conference TENCON'18 in Jeju, South Korea, to give an oral presentation on Algorithm Steps to Solve Coupled Case for Dual Input Dual Output SCC.



The Best Paper Award at TENCON 17

In 2017, Ainur Zhaikhan had a summer internship at the National Institute of Technology Surathkal Karnataka in India under the leadership of Prof. Debashisha Jena Group. There she worked on the paper "Design, Modeling and Analysis of A New Dual Input-Output Switched Capacitor Converter" that won the Best Paper Award at IEEE Region 10 Conference (TENCON'17) in Penang, Malaysia.

Ainur has been conducting a research on Switched Capacitor Converters at NU Power Electronics Research Lab (PERL) since her 2nd year (August 2015). So far she has co-authored 4 conference papers. After her graduation in 2018, Ainur was accepted to KAUST MSc Program in Telecommunication Engineering.

Two NU PERL alumni - Nurzhan Zhuldassov and Anvar Khamitov - after their graduation in 2018 were accepted to Ph.D. programmes at the University of Rochester, NY, and the University of Wisconsin-Madison, WI, respectively.

To conclude, in 2018, NU Power Electronics Research Lab published 3 journal and 7 conference papers (see page 27)

Prof. Alexander Ruderman delivers tutorials at IEEE Conferences

Dr. Alexander Ruderman was invited to deliver the following Tutorials at IEEE Conferences:

- "Time Domain Evaluation of Power Quality for Grid-Tied Inverters", IEEE 9th Int. Symposium on Power Electronics for Distributed Generation Systems (PEDG'18), Charlotte, NC, June 2018. (Click to proceed to the tutorial)
- "Time Domain Power Quality Evaluation for Grid-Tied Inverters", 18th Int. Conference on Power Electronics and Motion Control (IEEE-PEMC'18), Budapest, Hungary, August 2018. (Click to proceed to the tutorial)

In addition, Prof. Alexander Ruderman has been invited to serve as a Guest Co-Editor for the Energies journal Special Issue on Multilevel Converters.

After serving as an Associate Editor for the IET Journal of Power Electronics for 5 years, Prof. Alexander Ruderman was promoted to Senior Associate Editor.

During the Library Roadshow 2018 that was a part of the NU Research Day, NU Library recognized Prof. Alexander Ruderman as the most cited single author at NU for 2017 (19 Web of Science citations). His most cited NU journal article - A. Ruderman, "About Voltage Total Harmonic Distortion for Single- and Three-Phase Multilevel Inverters", IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, Volume: 62, Issue: 3, Pages: 1548-1551, Mar. 2015, - has 26 citations as of Nov. 2018.



The NU 2017 most cited single author award

Graduate School of Education News

Enhancing Research and Intellectual Capacity of PhD Students

As an integral part of the Ph.D. program at NUGSE, students have a very exciting opportunity to visit and spend about eight weeks at one of the partner universities, University of Cambridge (Ucam), UK or University of Pennsylvania (Upenn), USA. The purpose of this study abroad module in the PhD Program is to provide the students with an exposure to a different academic and scholarly environment at one of the world's leading universities in order to expand and enrich their scholarly pursuits, broaden their horizons, enhance their cultural intelligence, and experience life and studies in an international context.



NUGSE PhD Students at University of Pennsylvania, USA



NUGSE PhD Students at University of Cambridge, UK

This year, five students of the Ph.D. Cohort 2017 (Serik Ivatov, Botagoz Ispambetova, Assem Seitkadyrova, Altynay Musstafina, and Olga Bainova) went to UPenn and studied there from September 21st to November 19th, 2018. These students have research interests in the field of higher education and therefore they chose to go to Upenn which has strong expertise and impressive research in higher education. The other four students of the same cohort (Moldir Ablayeva, Altyn Baigazina, Gulnara Namyssova, and Gulmira Tussupbekova) went to UCam and studied there from September 29th to November 24th, 2018. These students pursue their research in school education and therefore went to UCam which has a strong pool of faculty in school education.

During the study abroad module, these students participated in a variety of research activities including doctoral research seminars, one-on-one consultations with their co-supervisors from the partner universities, guided study/literature review in libraries and interactions with other professors and doctoral students from all over the world. Based on their learning from these activities, the students were able to refine their research topics/questions, articulate the purpose and significance of their studies, develop a problem statement, theoretical framework and methodology of their doctoral studies.

In addition to the above-mentioned activities, the visiting students also participated in conferences and special guest lectures on critical educational issues organized at the partner universities. This year, the following conferences and guest lectures were held:

- Beyond the Walls: The University of the Future, 2018 Penn India Research Symposium;
- The Future of Higher Education: A Conversation with College Leaders at Upenn;
- Teaching for the Future Professional Partnership: Building Expertise and Innovative Practice at UCam;
- What is a thesis? Criticality and purpose of a thesis, at Ucam.

Apart from these conferences and lectures, the NUGSE students at the University of Cambridge also attended a course on Educational Research Methods held for all Ph.D. and Master's degree students.

Upon their return from the study abroad module, each group of students made a presentation to the NUGSE students and faculty in which they shared their learning experiences, reflections, and suggestions for further improvement of this important component of their Ph.D. Program. While sharing their experiences, the students mentioned that the study abroad module provided them with a transformative and enriching learning experience. For many of them, it was the first time to go to Europe and North America and study at a well-known university. They particularly appreciated that the study abroad module enabled them to meet and exchange ideas, experiences, and reflections with a community of international scholars, intellectuals, researchers, and doctoral and master students from around the globe. As researchers and emerging scholars, the visiting students believe that this study has made valuable contributions to their personal and professional development as it had a positive impact on their outlook on life, critical thinking, understanding of research and educational issues, confidence and communication skills, networking, and understanding of different cultures. They also believe that the study abroad was very timely as it took place just before they develop their thesis research proposals. Their learning experiences from the study abroad will help them articulate well the design, conceptual frameworks, and methodologies for their studies. The students would like to extend their gratitude and appreciations to NU, NUGSE and the host universities (UPenn and UCam) for organizing this very relevant, timely, rigorous and most enriching international study program.

SHARED BY PROF. MIR AFZAL TAJIK

National Laboratory of Astana News

SHARED BY ZHAZIRA BUKINA

NLA researchers win National Competition on Innovations



The team of Sholpan Askarova was awarded the 2nd place in the nomination "The best technological solution among startups".

The initiative scientific research results of NLA researchers from the Laboratory of Bioengineering and Regenerative Medicine was recognized as one of the most innovative by the results of the 2018 National Competition of Innovations and the rating of innovative companies. The cash prize as the second placeholders in the amount of 800 thousand kzt was awarded to our scientists in the nomination "The best technological solution among startups".

The national innovation competition was held under the auspices of the National Agency for Technological Development,

JSC with the support of the Ministry of Investment and Development of the Republic of Kazakhstan.

The winners of the competition were determined by an independent commission from among the authoritative leaders of the startup ecosystem of Kazakhstan, as well as a commission from among the heads of republican mass-media.

According to Sholpan Askarova, Head of the Laboratory of Bioengineering and Regenerative Medicine, who is also the head of the start-up team of the "AstanaBiomedGroup", they won the jury awards for developing the topical remedy for psoriasis "A-psorin".

-Psoriasis is a chronic and widespread skin disease that affects both men and women of all ages, regardless of ethnicity, in all countries of the world. We developed and tested a thermosensitive hydrogel for the treatment of vulgar (simple) psoriasis, containing poloxamer 407 and polyethylene glycol as the basis for and auxiliary substances, characterized in that 6-aminohexanoic acid, belonging to the group of fibrinolysis inhibitors, is used as an active substance,- said Sholpan Askarova.

In the near future, as scientists expect, "A-psorin" will be released not only in Kazakhstan but also in the Eurasian market. Now they are actively working on this in "AstanaBiomedGroup".

UMC holds the international conference on the formation of an academic medical center

On November 1, University Medical Center (UMC) corporate fund at NU hosted the international conference “Academic Medical Center: Transformation Challenges and Development Prospects.” The conference was dedicated to the 10th anniversary of the Republican Diagnostic Center and the National Scientific Center of Oncology and Transplantology.

More than 200 leading domestic and foreign experts in the field of oncology, surgery, urology, radiology, nuclear medicine attended this year’s conference.

Olzhas Abishev, Vice-Minister of Health of the Republic of Kazakhstan, Bruno Gridelli, Medical and Scientific Director of University of Pittsburgh Medical Center (UPMC International), U.S.A, Ilesanmi Adesida, Provost, Nazarbayev University, Massimo Pignatelli, Vice President for Medicine – Dean of the School of Medicine, Nazarbayev University, Zhaxybay Zhumadilov, Chairman of the Board of UMC corporate fund and Director General, NLA, Zhaksylyk Doskaliev, Head of the Republican Coordination Center on Transplantation and others were among the invited speakers of the conference.



Participants of the international conference “Academic Medical Center: Transformation Challenges and Development Prospects”

During the conference, the large group of medical workers of UMC corporate fund were conferred breastplates “Денсаулық сақтау ісінің үздігі” and “Денсаулық сақтау ісіне қосқан үлесі үшін” for their merits and significant contribution to the medical development of the country, as well as honorary diplomas and letters of thanks from Minister of Health of the Republic of Kazakhstan and President of NU.



Group of medical workers of UMC corporate fund was conferred breastplates “Денсаулық сақтау ісінің үздігі” and “Денсаулық сақтау ісіне қосқан үлесі үшін” for their merits and significant contribution to the medical development of the country.

The conference was moderated by renowned experts. Highlights included sections on topical issues of surgery and organ transplantation, modern technologies in nuclear medicine, anesthesiology, intensive care, and oncology. Participants also exchanged views on the achievements in the diagnosis and treatment of severe allergic syndromes. Following the results of the international conference, a resolution was adopted, which outlined the prospects for the development of UMC as an advanced academic medical center where high-level medical care will be provided, taking into account the synergy of research, educational and clinical activities.

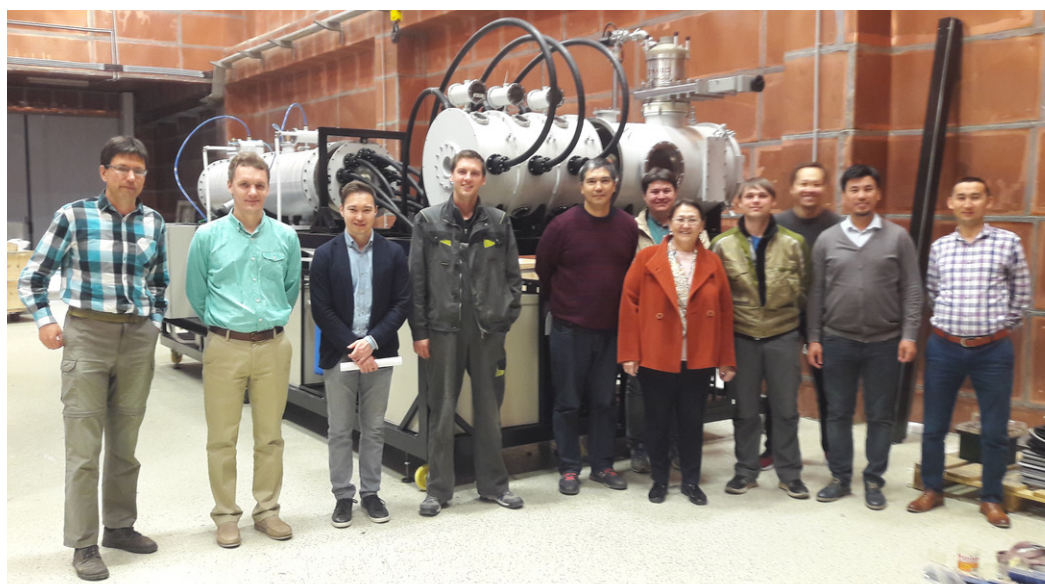
A launch of the high-current pulsed ion accelerator INURA at NU

The novel ion accelerator facility INURA (Innovative Nazarbayev University's Research Accelerator) was recently installed on the 1st floor of the C4 building at Nazarbayev University and produced the first ion beam. It was built as a result of 5 years effort, funded through the state target program "NU-Berkeley strategic initiative in warm-dense matter, advanced materials and energy sources", funded by the Ministry of Education and Science of the Republic of Kazakhstan.



Innovative Nazarbayev University's Research Accelerator (INURA)

The accelerator was designed and fabricated in collaboration with an LBNL (Lawrence Berkeley National Laboratory) and TPU (Tomsk Polytechnic University). At NU side, the project was envisioned and generally directed by Dr. Kanat Baigarin, and executed by a team guided by SST Physics assistant professor Alexander Tikhonov and NLA Senior Researcher Dr. Marat Kaikanov.



INURA execution team guided by Dr. Alexander Tikhonov and NLA Senior Researcher Dr. Marat Kaikanov

Accelerator INURA is a pulsed high current ion accelerator. It provides a 10 000 Amperes ion current in 80 nanoseconds, with the ion energy of 400 keV.

INURA is a multi-purpose ion accelerator, developed both for fundamental and applied research. It will be used to modify and fabricate new advanced materials, from the solid bulk to nanomaterials, as a high-current ion beam is able to modify materials structure and properties. It will be also used for plasma and charged particles beams studies. Future uses of INURA include developing of commercialized technologies, such as materials hardening/wear resistance improvement, fabricating nanopowders, bio-agricultural applications.

The INURA capabilities have already attracted large interest and collaboration activities from several research groups at NU, Kazakhstan, and international research centers. Several research projects have already been started, among them: fabrication of transparent conductive coatings; ion beam transport and focusing in plasma; fabrication of nano-powders and modification of nanostructures.

Arailym Nurpeissova, CEAMS, NLA wins TechWomen grant in Silicon Valley

This year five girls from Kazakhstan, among them is Arailym Nurpeissova, were selected out of 3 300 applicants from Central Asia, the Middle East, and Africa by experts of Institute of International Education (IIE), which is managing TechWomen.

During the five-week program, all participants engaged in project-based mentorships at leading companies in the San Francisco Bay Area and Silicon Valley participated in professional development workshops and networking events and traveled to Washington, D.C. for targeted meetings and special events to conclude the program.

On October 19, all participants presented their projects in Silicon Valley on solving socially significant problems in their countries like poverty, illiteracy, poor quality of medical services, environmental pollution and so on. The team from Kazakhstan came up with the idea of creating an online platform “uki.kz” on the issue of domestic violence. The goal of the Kazakhstani project is to create an information environment for raising public awareness of victims of domestic violence, obtaining legal and psychological assistance for victims, and creating a society of mutual support.

The girls analyzed that annually in Kazakhstan the number of deaths of women from domestic violence ranges from 400 to 500 people, so girls decided to take as an example the experience of the American company “Madre” in California. This organization, which protects victims of violence, has been able to reduce the mortality rate of women over the past 10 years and bring it to a minimum so that the number of women who die from domestic violence has become 0.

It is known, that the mission of TechWomen is to empower, connect and support the next generation of women leaders in science, technology, engineering and mathematics (STEM) by providing them access and opportunity to advance their careers, pursue their dreams, and become role models for women and girls in their communities.

TechWomen is an initiative of the U.S. Department of State’s Bureau of Educational and Cultural Affairs (ECA). TechWomen, launched in 2011, supports the United States’ global commitment toward advancing the rights and participation of women and girls around the world by enabling them to reach their full potential in the tech industry.



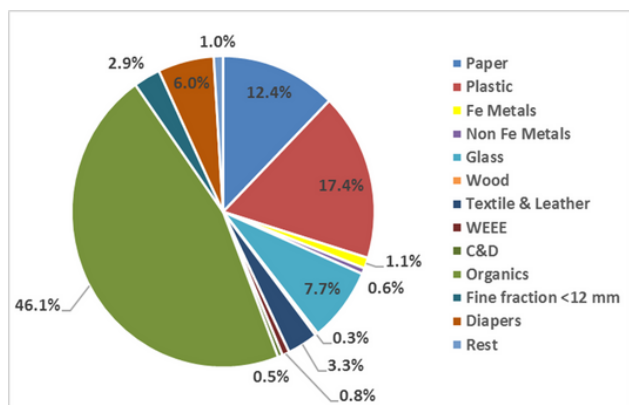
TechWomen 2018 participants

Green Energy and Municipal Solid Waste Solutions



Prof. Ben Anthony, Cranfield University, UK

On September 12, 2018, NLA and Chemical Engineering Department of School of Engineering, NU hosted the one-day workshop entitled: "Green Energy and Municipal Solid Waste Solutions." The workshop was dedicated to the utilization of solid waste in fluidized bed technologies, co-firing in fluidized beds technologies and environmental aspects of municipal solid waste generation. Scientists from leading universities of neighboring countries and far abroad from the United Kingdom, Russia and Germany, senior management of research organizations, educational institutions, industry representatives, Kazakhstani officials attended this year's seminar. The workshop was moderated by renowned scientists like prof. Ben Anthony, Cranfield University, UK; prof. Georgy Ryabov, All-Russia Thermal Engineering Institute, Russian Federation; Sergey Urcha, LTD "ROP" Waste utility company, Kazakhstan; Christos Venetis, Ingenieurgesellschaft Prof. Czurda und Partner mbH (ICP), Germany and others.



Autumn sampling in Astana

Researchers from NLA and NU presented their project on characterization and investigation of the energy potential of municipal solid waste in Astana. The objective of this project is to develop fluidized bed co-gasification/combustion technology for refuse-derived fuel and coal. The wider impact of the project is the elimination of technical uncertainty barriers preventing correct development of techno-economic feasibility studies necessary for investment in waste recycling and waste-to-energy facilities in Kazakhstan.



Waste landfill in Astana

Environmental Science & Technology Group News

AIChE Recognition prize to Nazarbayev University chapter



Prof. Inglezakis

On behalf of ESTg, we wish to congratulate AIChE Student chapter of Nazarbayev University and their advisor Prof. Inglezakis on their selection as an Outstanding Student Chapter for the 2017-2018 academic year! This prize is a recognition of the efforts and hard work of students, as well as their active involvement and development of their chapter. We wish AIChE students further prosperity, greater recognition throughout the world, a lot of prizes and awards!

Traineeship at the Universidad de Alicante, Spain



Aliya Kudarova

Our ESTg member, Aliya Kudarova was participating in a 1-month traineeship in the framework of Nanoporous and Nanostructured Materials for Medical Applications (NanoMed) project at the Universidad de Alicante, Spain. Aliya continued the work on the characterization of modified and non-modified forms of zeolite by scanning electron microscope (SEM) and transmission electron microscope (TEM). Aliya performed the synthesis of a modified form of zeolites from the raw material on site. Aliya completed the measurements of iodide removal from water solutions under different conditions on UV-VIS spectrophotometer.

Site visit to Pavlodar refinery #ESTgvisits



Prof. Inglezakis and 2nd year students

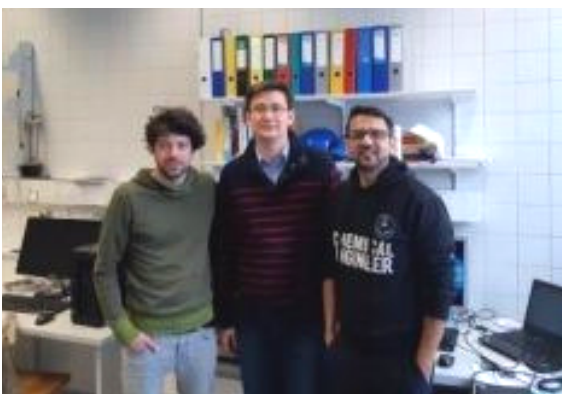
Professor Inglezakis and group of 2nd-year students visited Pavlodar refinery. During the visit, students were able to familiarize themselves with the main processes and important units at the plant, learn more about the remote operation of the control room, as well as get answers to their questions about the company.



Prof. Inglezakis and students at Pavlodar refinery

Note: Pavlodar Oil Chemistry Refinery (POCR LLP) is the largest enterprise in the northeast of Kazakhstan for oil refining and production of oil products and one of the three oil refineries of the Republic, 100% of shares are owned by "National Company "KazMunayGas" JSC.

Annual conference "Waste to Energy" in Austria



Yerbol Sarbassov and Ph.D. students of Prof. Franz Winter

On October 1-2, our postdoctoral researcher Yerbol Sarbassov attended the annual conference "Waste to Energy" in Vienna, Austria, where he delivered his poster presentation entitled as "Characterization of Refuse Derived Fuel from Municipal Solid Waste". The conference was organized by IRRIC. In addition, Yerbol also visited Vienna University of Technology, Institute of Chemical, Environmental and Bioscience Engineering, Research Division of Chemical Process Engineering and Energy Technology and meet with Ph.D. students of Prof. Franz Winter.

ESTg at NU Research day



Zhandos Tauanov giving a tour to visitors

ESTg is the cornerstone of The Environment and Research Efficiency Cluster (EREC) a newly founded research cluster. In this event, our researcher Zhandos Tauanov gave a tour to our new labs in block C4 and presented the existing projects of our group.

SHARED BY DR. VASILEIOS
INGLEZAKIS

Research News from Advanced Nanomaterials Lab

SHARED BY ANARA
MOLKENOVA

International Conferences

4th-grade students from Chemistry Department of School of Science and Technology, Dimaral Aben, Yerkezhan Amangeldinova, and postdoctoral scholar Dr. Anara Molkenova from Advanced Nanomaterials Lab attended the 5th International conference & exhibition for Nanotechnology (NANOPIA) between November 7-9, 2018 in Changwon Exhibition Convention Center in South Korea. There were 6 parallel sessions: Nanodevice & Processing, Nanomolding & Applications, Nanomaterials & Energy, Nanosensing & Spectroscopy, Nanobiotechnology, and Nanomedicine. The conference provided an excellent platform for building research and academic network for future research collaborations and finding scholarships.

Students had a great opportunity to showcase the research being conducted at Nazarbayev University. In addition, their research results will be used to prepare a manuscript for publishing in a Scopus indexed journal.



Dimaral Aben, Yerkezhan Amangeldinova, and Dr. Anara Molkenova

International Meetings

The following international meetings were organized in 2018 through the efforts of Prof. Timur Atabaev:

- Symposium co-organizer - Materials Challenges in Alternative and Renewable Energy (MCARE 2018) - August 20-23, Vancouver, Canada
- Technical Committee Member - The 7th Global Conference on Materials Science and Engineering (CMSE 2018) November 1-4, Xi'an, China
- Technical Committee Member - The 3rd International Conference on Smart Materials Technologies (ICSMT 2018) June 21-23, Moscow, Russian Federation
- Technical Committee Member - 4th Annual International Workshop on Materials Science and Engineering (IWMSE 2018), May 18-20, Xi'an, China

New Publications

Books and book chapters

1. Arkhangelsky, E., Inglezakis, V., Gitis, V., Korobeinyk, A.V. (2019). "Gold and Silver Nanoparticles as a Powerful Tool for Membrane Pore Size Determination and Mercury Removal", *Nanotechnology in Water and Wastewater Treatment: theory and applications*", Elsevier, 1st edition.
2. Laruelle, M., & Schenk, C. (Eds.) (2018). *Eurasia on the Move: Interdisciplinary Approaches to a Dynamic Migration Region*. George Washington University.
3. Schenk, C. (2018). *Why control immigration?*. University of Toronto Press.
4. Thibault, H. (2018). *Transforming Tajikistan: State-building and Islam in post-Soviet Central Asia*. London: I.B. Tauris.

Journal articles and Conference papers

1. Chacha, M. and Kobayashi, Y. (2018). Migration and public trust in the commonwealth of independent states. *Regional & Federal Studies*, 28(4), pp.523-541.
2. Doskaliyev, D., Pouloupoulos, S.G., Yeshmuratova, A., Aldyngurova, F., Zorpas, A.A., Inglezakis, V.J. "Effects of 2-Chlorophenol and 2,4,6-Trichlorophenol on an Activated Sludge Sequencing Batch Reactor", *Desalination and Water Treatment Journal*
3. Goudouva, G., Loizia, P., Inglezakis, V., Zorpas, A. "Quarries Environmental Footprint in the Framework of Sustainable Development. The case study of Milos Island", *Desalination and Water Treatment Journal*
4. Khamitov, A., A. Semydjarov, R. Polichshuk, A. Ruderman. (2018). Time Domain Constrained Optimization of Low Switching Frequency Synchronous Modulation for a Two-Level Three-Phase Inverter. *IEEE Power Electronics and Motion Control Conference (IEEE-PEMC)*, Budapest, Hungary
5. Ménez, B., Pisapia, C., Andreani, M., Jamme, F., Vanbellinghen, Q., & Brunelle, A. et al. (2018). Abiotic synthesis of amino acids in the recesses of the oceanic lithosphere. *Nature*, 564(7734), 59-63. doi: 10.1038/s41586-018-0684-z
6. Moon, D. G. (2018). Planting Trees in Unsuitable Places: Russian Steppe Forestry, 1696-1850. In N. Breyfogle (Ed.), *Eurasian Environments: Nature and Ecology in Imperial Russian and Soviet History* (pp. 23-42). Pittsburgh, PA: University of Pittsburgh Press.
7. Mustafa Y.; Zhaikhan A.; Ruderman A. (2018). Dual Output Switched Capacitor Converter Model for Cross Regulation Effects. *Electronics Letters*, (IF 1.232).
8. Polichshuk, R., B. Reznikov, A. Ruderman A. (2018). Six-level DC-DC flying capacitor converter voltage balancing dynamics analysis for different carrier-based modulation strategies. *IEEE SPEEDAM Symposium*, Amalfi Coast, Italy.
9. Polichshuk, R., N. Zhuldassov, A. Ruderman, B. Reznikov. (2018). On Current THD Extreme Switching Sequences for a Single-Phase Cascade H-Bridge Inverter with Phase-Shifted PWM and Non-Equal DC Sources. *IEEE Power Electronics and Motion Control Conference (IEEE-PEMC)*, Budapest, Hungary

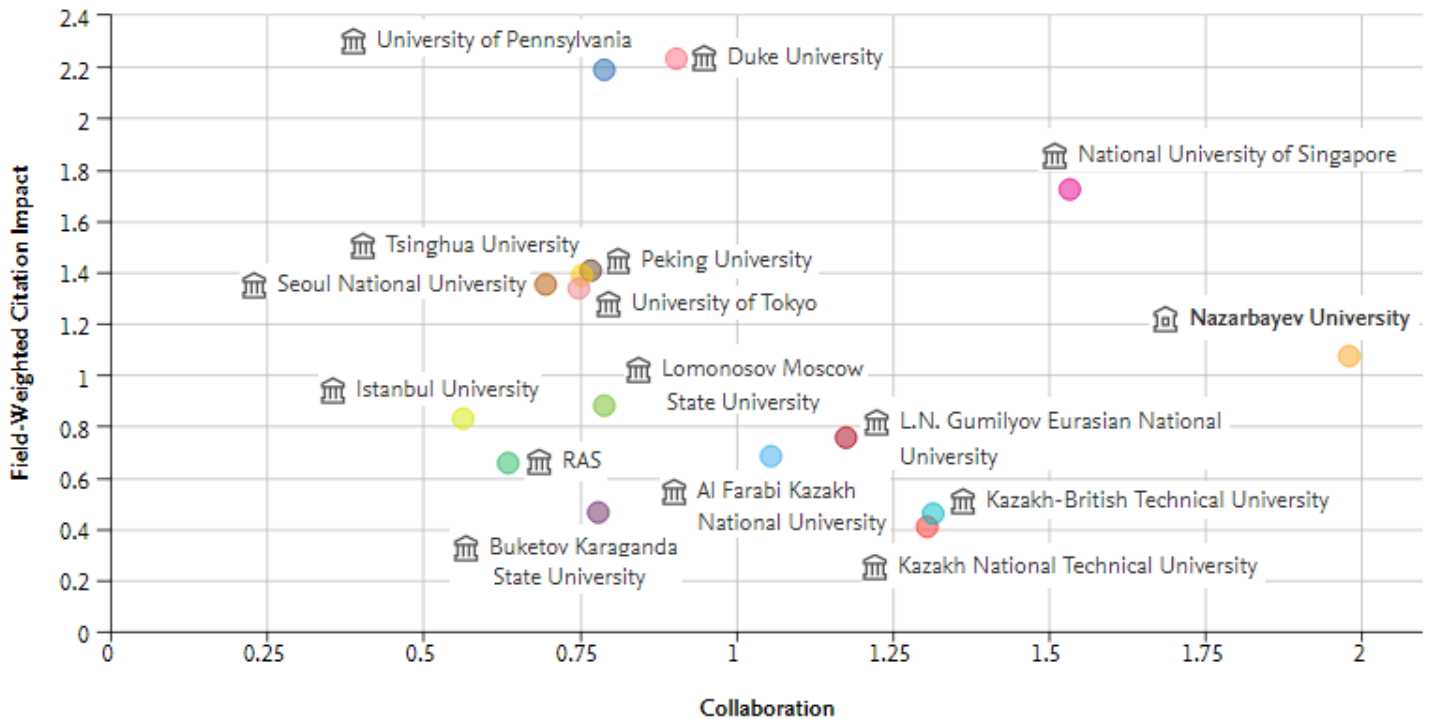
10. Pouloupoulos, S., Makhatova, A., Mazhit, B., Inglezakis, V. (2018) "Removal of total organic carbon and color from Astana municipal landfill leachate by Uv-Fenton, UV-H₂O₂ and Fenton reaction", SGEM Vienna Green, Vienna, Austria, Link: <https://www.sgemviennagreen.org/>
11. Powell, J., Chacha, M. and Smith, G. (2018). Failed coups, democratization, and authoritarian entrenchment: Opening up or digging in?. African Affairs.
12. Rassilo P.; Martinez W.; Fujisaki K.; Kyyra J.; Ruderman A. (2018). Simulink Model for PWM-Supplied Laminated Magnetic Cores Including Hysteresis, Eddy-Current and Excess Losses. IEEE Trans. Power Electronics (IF 7.151).
13. Schenk, C. (2018). The Crisis Mentality of Russian Migration Management. Oxford Handbooks Online.
14. Schenk, C. (2018). Russia Before and After Crimea: Nationalism and Identity, 2010-17. Kolstø, P. & Blakkisrud, H. (eds.). Edinburgh University Press
15. Semydyarov, A., A. Ruderman. (2018). Selective Harmonic Mitigation by Time Domain Constrained Optimization. IEEE International Symposium on Power Electronics for Distributed Generation Systems (PEDG), Charlotte, NC.
16. Srndovic M.; Zhetessov A.; Alizadeh T.; Familiant Y.; Grandi G.; Ruderman A. (2018). Simultaneous Selective Harmonic Elimination and THD Minimization for a Single-Phase Multilevel Inverter with Staircase Modulation. IEEE Trans. Industry Applications (IF 2.937)
17. Sullivan, C. (2018). Kazakhstan at a Crossroads. Asia Policy, 25(2), pp.121-136.
18. Tokmurzin, D., Aiyymbetov, B., Abylkhani, B., Yagofarova, A., Sarbassov, Y., Inglezakis, V., Venetis, C., Pouloupoulos, S.G. (2019). "Fixed-Bed Gasification and Pyrolysis of Organic Fraction of MSW Blended with Coal Samples", Chemical Engineering Transactions, 73.
19. Trochev, A. (2018). Patronal politics, judicial networks and collective judicial autonomy in post-Soviet Ukraine. International Political Science Review, 39(5), pp.662-678.
20. Trochev, A. and Solomon, P. (2018). Authoritarian constitutionalism in Putin's Russia: A pragmatic constitutional court in a dual state. Communist and Post-Communist Studies, 51(3), pp.201-214.
21. Yap, J., & Manabat, A. (2018). When the library steps in. Journal Of Information Literacy, 12(2), 131-141. doi:10.11645/12.2.2514
22. Yapiyev, V., Charles P Gilman, Tolganay Kabdullayeva, Akmaral Suleimenova, Aizhan Shagadatova, Azat Duisembay, Sanzhar Naizabekov, Saule Mussurova, Kamilya Sydykova, Ilyas Raimkulov, Ilyas Kabimoldayev, Ainagul Abdrakhmanova, Symbat Omarkulova, Dastan Nurmukhambetov, Aliya Kudarova, Daniyar Malgazhdar, Christian Schönbach, Vassilis Inglezakis, "Top soil physical and chemical properties in Kazakhstan across a north-south gradient", Scientific Data Journal (IF=5.305)
23. Zhaikhan, A., Y. Mustafa, A. Ruderman. (2018). SCC Equivalent Resistance: the Relationship for Complementary Buck and Boost and Accurate Calculation for 2-Phase Converters. IEEE Power Electronics and Motion Control Conference (IEEE-PEMC), Budapest, Hungary

24. Zhaikhan, A., Y. Mustafa, V. Subburaj, D. Jena, P. Perumal, A. Ruderman. (2018). Algorithm Steps to Solve Coupled Case for Dual Input Dual Output SCC. IEEE Region 10 Conference (TENCON), Jeju, Korea
25. Zhuldassov, N., A. Ruderman. (2018). Single-Phase PS-PWM Cascaded H-Bridge Inverter Current THD Optimization by Unequal DC Sources Switching Sequence Selection. IEEE International Symposium on Power Electronics for Distributed Generation Systems (PEDG), Charlotte, NC.

References:

- Assembly of people of Kazakhstan. (2018). Issues of ethnicity and religionism in the modern mentality were discussed at APA. [online] Available at: <https://assembly.kz/en/news/assembly/issues-ethnicity-and-religionism-modern-mentality-were-discussed-apa> [Accessed 5 Dec. 2018].
- Botanical Garden, Astana. (2018). [image] Available at: <https://informburo.kz/novosti/nursultan-nazarbaev-otkryl-botanicheskiy-sad-v-astane.html> [Accessed 5 Dec. 2018].
- Dijk, J. V., Kesteren, J. V., Trochev, A., & Slade, G. (2018). International Crime Victims Survey in Kazakhstan(Rep.). ISBN:978-601-06-5338-2
- Dr. Caress Schenk. (2018). [Image]. Retrieved from <http://voicesoncentralasia.org/eurasia-on-the-move-interdisciplinary-approaches-to-a-dynamic-migration-region/>
- Dr. Schenk at the International seminar. (2018). [image] Available at: <https://assembly.kz/en/news/assembly/issues-ethnicity-and-religionism-modern-mentality-were-discussed-apa> [Accessed 5 Dec. 2018].
- Eurasia on the Move: Interdisciplinary Approaches to a Dynamic Migration Region. (2018). [Image]. Retrieved from <http://voicesoncentralasia.org/eurasia-on-the-move-interdisciplinary-approaches-to-a-dynamic-migration-region/>
- Gtr.ukri.org. (2018). GtR. [online] Available at: <https://gtr.ukri.org/projects?ref=ES%2FR005192%2F1> [Accessed 5 Dec. 2018].
- Kelley, D. (2018, September). Carbonate chimneys of the Lost City Hydrothermal Field [image]. Retrieved from <https://www.smithsonianmag.com/science-nature/diving-deep-reveal-microbial-mysteries-lost-city-180970234/>
- Monument to Tsar Peter I of Russia in Taganrog. (2018). [image] Available at: [https://ru.wikipedia.org/wiki/%D0%9F%D0%B0%D0%BC%D1%8F%D1%82%D0%BD%D0%B8%D0%BA_%D0%9F%D0%B5%D1%82%D1%80%D1%83_I_\(%D0%A2%D0%B0%D0%B3%D0%B0%D0%BD%D1%80%D0%BE%D0%B3\)#/media/File:2008_Peter_the_Great_Monument.jpg](https://ru.wikipedia.org/wiki/%D0%9F%D0%B0%D0%BC%D1%8F%D1%82%D0%BD%D0%B8%D0%BA_%D0%9F%D0%B5%D1%82%D1%80%D1%83_I_(%D0%A2%D0%B0%D0%B3%D0%B0%D0%BD%D1%80%D0%BE%D0%B3)#/media/File:2008_Peter_the_Great_Monument.jpg) [Accessed 5 Dec. 2018].
- Professor Helene Thibault. (2018). [Image]. Retrieved from <https://shss.nu.edu.kz/faculty/helene-thibault>
- Transforming Tajikistan [Image]. (2018). Retrieved from <https://www.amazon.com/Transforming-Tajikistan-State-building-Post-Soviet-Central/dp/178453921X>
- Voices On Cental Asia. (2018). Eurasia on the Move. Interdisciplinary Approaches to a Dynamic Migration Region. [online] Available at: <http://voicesoncentralasia.org/eurasia-on-the-move-interdisciplinary-approaches-to-a-dynamic-migration-region/> [Accessed 5 Dec. 2018].
- Voices On Cental Asia. (2018). Transforming Post-Soviet Tajikistan: An Interview with Hélène Thibault. [online] Available at: <http://voicesoncentralasia.org/transforming-post-soviet-tajikistan-an-interview-with-helene-thibault/> [Accessed 5 Dec. 2018].

Research Performance Evaluation using SciVal



In this issue, we are delighted to present you an overview of research activities conducted under the auspices of Nazarbayev University.

Since its inception in 2011, Nazarbayev University faculty members and researchers have released 2,195 peer-reviewed publications indexed by Scopus, and have been cited 7,642 times (Source: SciVal, December 6). The approximate number of citations per peer-reviewed publication is 3.6.

For getting more comprehensive information on the research performance at NU, please have a look at the [following presentation](#) prepared using SciVal research evaluation platform.

If you have any questions regarding the provided information, please contact Saule Sadykova (ssadykova@nu.edu.kz).

Funding Opportunities

To see the funding opportunities shared in our previous issue, please [click here](#).

#	Program title	Funder	Award ceiling	Deadline	Link to source
1	Translational research grant	Pediatric Cancer Research Foundation	depends on the grant type (from \$50,000 up to \$250,000)	2019-05-01	link
2	Education and outreach grants	Breast Cancer Alliance	\$125,000	2019-11-30	link
3	Harriet H. Samuelsson Foundation grants	Harriet H. Samuelsson Foundation	partial funding	2019-03-31	link
4	The Bloom's Syndrome Foundation scientific research grant	Bloom's Syndrome Foundation	not specified	not specified	link
5	The Children's Fund for Glycogen Storage Disease research grants	Children's Fund for Glycogen Storage Disease Research	not specified	not specified	link
6	AFSA research grants	American Fibromyalgia Syndrome Association	\$50,000	no deadlines	link
7	World Immunodeficiency Network (WIN) - winMD	Jeffrey Modell Foundation	not specified	not specified	link
8	International traveling scholarship	International Society for Heart and Lung Transplantation	up to \$6,000	2019-06-01	link
9	Ocular Immunology and Uveitis Foundation travel grant	ARVO Foundation for Eye Research	not specified	2019-11-30	link
10	Medical education grant	Boehringer Ingelheim	not specified	not specified	link
11	Radiology investigator initiated research	Bayer	not specified	not specified	link
12	Quality Improvement Education Grants	Boehringer Ingelheim	not specified	not specified	link
13	Scientific Advancement Grants	Boehringer Ingelheim	not specified	not specified	link
14	Ramaciotti biomedical research award	Ramaciotti Foundations	up to \$150,000	not specified	link
15	SC1-DTH-09-2019 - Scaling up the univocal Identification of Medicinal Products	Horizon 2020 Framework Programme	not specified	2019-04-24	link
16	SC1-DTH-11-2019 - Large scale pilots of personalised & outcome based integrated care	Horizon 2020 Framework Programme	up to \$35,000,000	2019-04-24	link
17	SC1-BHC-13-2019 : Mining big data for early detection of infectious disease threats driven by climate change and other factors	Horizon 2020 Framework Programme	up to \$35,000,000	2019-04-16	link
18	SC1-BHC-14-2019: Stratified host-directed approaches to improve prevention, treatment and/or cure of infectious diseases	Horizon 2020 Framework Programme	up to \$35,000,000	2019-04-16	link

#	Program title	Source	Award ceiling	Deadline	Link to source
19	SC1-DTH-01-2019: Big data and artificial intelligence for monitoring health status and quality of life after the cancer treatment	Horizon 2020 Framework Programme	up to \$35,000,000	2019-04-24	link
20	SC1-DTH-05-2019: Large scale implementation of digital innovation for health and care in an ageing society	Horizon 2020 Framework Programme	up to \$35,000,000	2019-04-24	link
21	SU-FCT02-2018-2019-2020 : Technologies to enhance the fight against crime and terrorism	Horizon 2020 Framework Programme	up to \$35,000,000	2019-08-22	link
22	SU-DRS05-2019: Demonstration of novel concepts for the management of pandemic crises	Horizon 2020 Framework Programme	up to \$35,000,000	2019-08-22	link
23	Animal models of serious bacterial infection - CDER	Oak Ridge Associated Universities	not specified	not specified	link
24	Strategic approaches to improving access to quality health care for children and youth with epilepsy	Health Resources and Services Administration	\$3,250,000	2019-03-06	link
25	Human health assessment - Epidemiology	Oak Ridge Associated Universities	not specified	not specified	link
26	Development and demonstration of analytical methods for the characterization and human exposure	Oak Ridge Associated Universities	not specified	not specified	link
27	Exploring the utility of next-generation air quality sensors - Assessment and advanced data analysis	Oak Ridge Associated Universities	not specified	not specified	link
28	Faculty Research Program (FRP)	Oak Ridge Associated Universities	not specified	not specified	link
29	In vitro exposure technology	Oak Ridge Associated Universities	not specified	not specified	link
30	Analytical and/or clinical validation of a candidate biomarker for pain (R61/R33 clinical trial optional)	National Institutes of Health	not specified	2019-03-07	link
31	NIOSH Support for conferences and scientific meetings (R13)	Centers for Disease Control and Prevention	\$20,000	2019-12-12	link
32	Research Project Grants	Leverhulme Trust	depends on the program	2019-03-21	link
33	Efficacy and Mechanism Evaluation; Health Services and Delivery Research; Health Technology Assessment; Invention for Innovation; Public Health Research; Research for Patient Benefit; Systematic Reviews;	National Institute for Health Research	depends on the program	depends on the program	link

#	Program title	Source	Award ceiling	Deadline	Link to source
34	Research grant program - Development grants	Barth Syndrome Foundation	Up to 100,000 USD	2019-09-21	link
35	Between Europe and the Orient – A Focus on Research and Higher Education in/on Central Asia and the Caucasus	Volkswagen Foundation	Not specified	not specified	link
36	Translational Research Project (TRP) Grants	Heart Research UK	Up to 150,000 GBP	2019-06-01	link
37	Foundation research grants	Mucopolipidosis IV Foundation	Not specified	not specified	link
38	Joseph H. Fichter research grant competition	Association for the Sociology of Religion	Up to 12,000 USD	2019-05-01	link
40	New century scholars research grant	American Speech-Language-Hearing Foundation	Up to 25,000 USD	not specified	link
41	Public scholar program	National Endowment for the Humanities	Up to 50,400 USD	2019-02-06	link