



RESEARCH NEWSLETTER

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Institute of Smart Systems
and Artificial Intelligence

Institute of Smart Systems and Artificial Intelligence (ISSAI) Expands AI Computation Capacity with Two New Nvidia DGX-2 Servers



The Institute of Smart Systems and Artificial Intelligence (ISSAI) received two NVIDIA DGX-2 servers. The server specializes in General-purpose computing on graphics processing units (GPGPU) to accelerate deep-learning applications. It is considered as the world's fastest workstation for leading-edge AI development. These systems have become the de-facto standard for AI research.

Designed to meet the computing needs of deep learning and data analysis, NVIDIA DGX systems are built on the revolutionary NVIDIA Volta GPU architecture. Thanks to innovative GPU-optimized software and simplified management, these solutions provide revolutionary productivity and speed. NVIDIA DGX Systems are designed to provide scientists with the most powerful tools for developing AI on any platform, from the desktop system to the data center and the cloud.

The ISSAI research team was the first to operationalize the DGX systems in Kazakhstan, and has garnered substantial know-how and expertise in the use of these systems. The expanding deep computation capacity of ISSAI will allow faculty members of Nazarbayev University and collaborators from other Kazakh universities to intensify their research efforts in artificial intelligence.

For more information, please visit the [ISSAI website](#).

Follow ISSAI on Social Media:



Advanced Centre for PhD Students and Young Researchers in Informatics

INTERNATIONAL OUTREACH FOR PHD AND YOUNG KAZAKH RESEARCHERS



On January 15, 2020, Advanced Centre for PhD Students and Young Researchers in Informatics (ACeSYRI) was started to provide an innovative infrastructure for international cooperation among students, researchers and teaching lecturers of Kazakh and European universities. This project will bring the education of graduate students closer to the generally accepted international rules and norms based on the internationalization of postgraduate education.

ACeSYRI is co-funded by the Erasmus+ Programme of the EU. This partnership involves EU universities (Žilinská Univerzita (UNIZA), Slovakia, University of Łódź (ULO), Poland, Université de Lorraine (UL), France) and Kazakhstani institutions (Nazarbayev University, Kazakh National Technical University after K.I.Satbayev, Zhangir Khan West Kazakhstan Agrarian-Technical University, Korkyt Ata Kyzylorda State University, Manash Kozybayev North Kazakhstan State University, Suleyman Demirel University, Almaty University of Power Engineering and Telecommunications, Bologna process and academic mobility center, Kazakhstan Information Security Association).

On Monday, March 16, 2020 the first monitoring meeting was held in Nur-Sultan, Kazakhstan. During this meeting there were personal introductions of partners' representatives, role discussions and project's plan discussion.

This center aims to:

- To improve the research conditions of young researchers in Kazakhstan
- To provide an innovative infrastructure for international cooperation among young researchers and teaching staff of Kazakh and European universities
- To provide electronic platform for PhD students to find consultants in domains related to their research areas outside of Kazakhstan and involve them in international projects

Expected results:

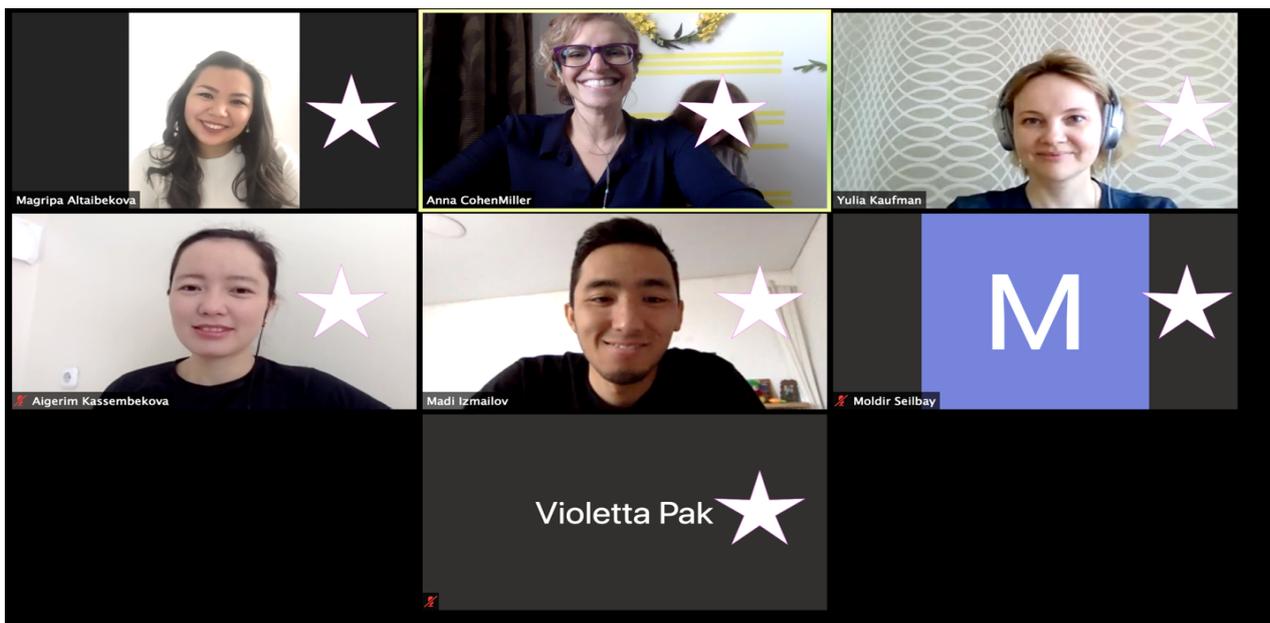
- The creation of long-term cooperation platform for Kazakh and EU universities
- The development of virtual online portal
- Conducting conferences, workshops, meetings to share the scientific experience of young researchers

For more information, please visit the [website](#)



Graduate School of Education News

Higher Ed Learning Collective: Kazakhstan leads the way in aiding educators worldwide



Starting with a handful of founding members, including [Anna CohenMiller](#) of [Nazarbayev University's Graduate School of Education](#), the Higher Ed Learning Collective began as a support for teaching facing a move to online learning. The Collective now includes over 24,000 members, representing over 99 countries, with over a hundred members in Kazakhstan.

Responding to the needs of the University, CohenMiller first wrote a short piece about [how to jump into online teaching](#), then created a document with [practical tips for online learning](#) integrating insights from her work with the Innovative Learning Hub at NU prior to creating the Learning Collective. Working hand-in-hand with [John Broome](#) in the United States and internationally, the Collective provides a space to discuss the major shifts occurring in higher education worldwide.

CohenMiller's work has now been highlighted and promoted for tips and resources across disciplines and international outlets. For example, the resultant set of resources are promoting opportunities for collective support and ideas for the future of higher education at [NU](#) and internationally, such as in collected repositories for [sociology](#) and [education](#).

PREPARED BY PROF. ANNA COHENMILLER



School of Sciences and Humanities News

Revealing nano- and micro- scale thermal transport in ion irradiated materials by advanced laser metrology



Prof. Zhandos Utegulov

Associate Professor Zhandos Utegulov and Postdoctoral Research Scholar Azat Abdullaev of NU SSH Department of Physics have assembled non-contact femtosecond pulse laser-based pump-probe technique called time-domain thermoreflectance (TDTR) to enable nano- and micro-scale thermal transport measurements in solid-state materials and structures. Using TDTR, in collaboration with scientists from the USA, South Africa and Russia, for the first time they have revealed two distinct regions



Azat Abdullaev

of thermal conductivity degradation in sapphire after irradiation with swift heavy ions derived from high-energy accelerator.

Controlling thermal conductivity of materials on nanometer and micron scales is extremely important for tailoring materials to various thermal management applications ranging from nuclear and fusion reactors to thermoelectrics, nanoelectronics, electrochemical storage devices and biomedical technology. One way to adjust thermal transport properties on a small spatial depth scale is to bombard a material with high energy particles. While in general this method damages the material, irradiation with swift heavy ions (SHI) forms an aligned array of ion tracks, altering materials' thermal conductivity.

In radiation material science, SHIs are a special form of particle radiation for which electronic stopping dominates over nuclear stopping. However, the impact of damage resulting from inelastic electronic stopping of energetic ions on thermal transport is practically unknown. Unlike irradiations with low energy ions where electronic and nuclear stopping regimes are overlapped, in SHI irradiated insulators these two regimes are spatially separated with subsurface structural damage exhibited across nanoscale subsurface region.

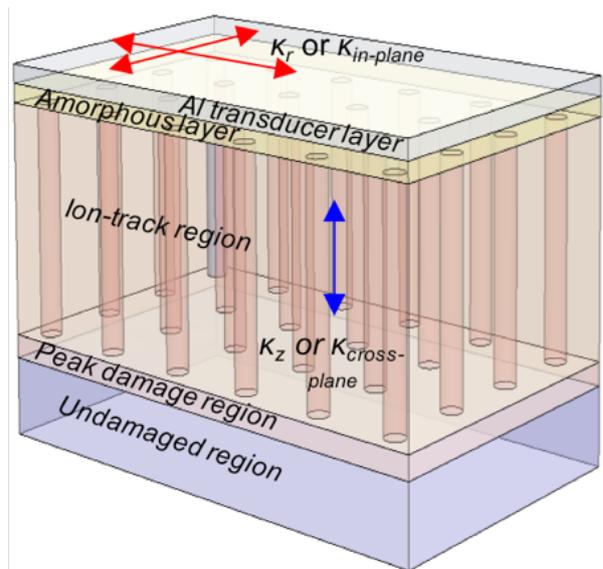
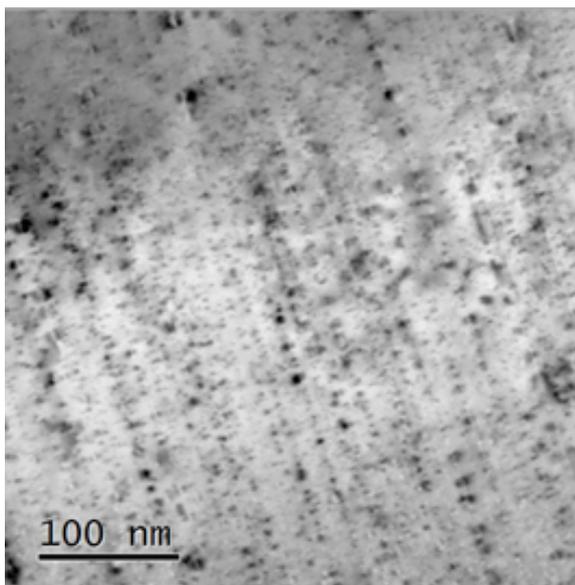
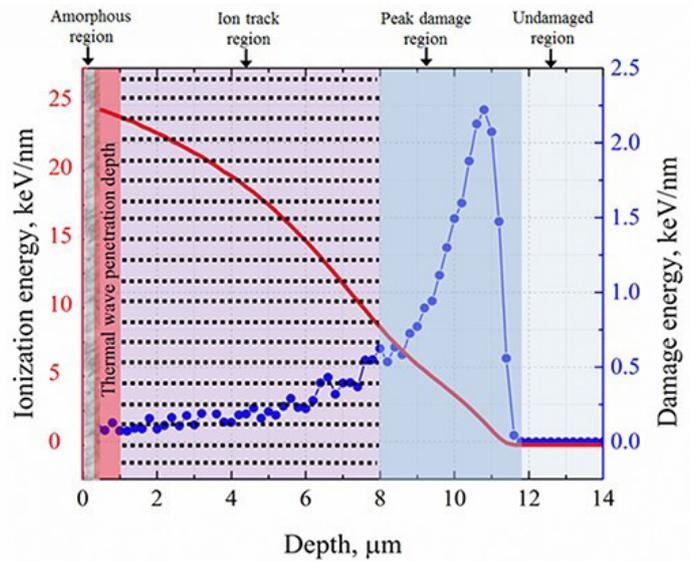
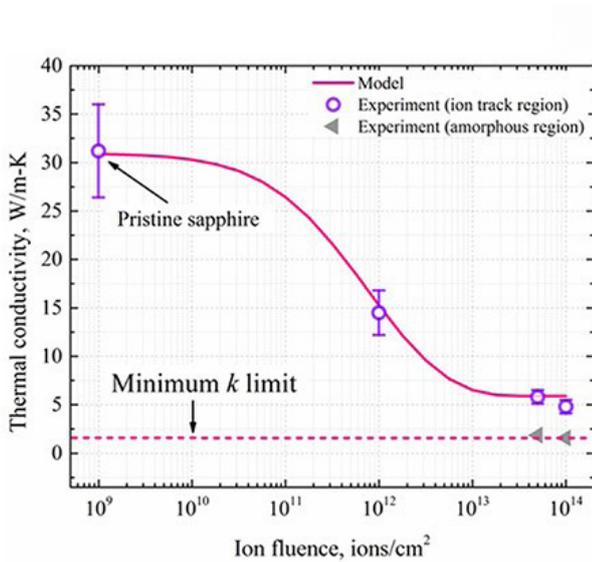
The authors demonstrated TDTR's capability to measure ion damaged materials' thermal transport behavior on the nanometer scale. This technique could aid in future studies of irradiated materials' nanoscale and microscale thermal transport. They investigated this method by determining how highly oriented ion tracks due to SHI irradiation modified thermal conductivity of sapphire samples. They identified two regions with distinct reduced thermal conductivity values consistent with thermal transport models. One is an ion track region that is several micrometers thick. The other is sub-surface amorphous layer that only forms with high dose irradiation, and is only several tens of nanometers thick. They confirmed their TDTR results on the existence of these two regions with high resolution transmission electron microscopy.

This study addresses the knowledge gap in understanding the effect of SHI irradiation on thermal transport. The work is important for further investigation in the general field of ion beam modification where thermal transport, electronic, optical, magnetic and electrochemical properties of insulating, dielectric, semiconductors and ceramics are tailored to meet the requirements of their respective applications.

The authors also shed light on unique thermal anisotropy present in studied irradiated materials by employing modulated continuum wave laser-based thermoreflectance technique for simultaneous characterization of cross- and in-plane thermal transport properties.

The research has been published in the following international peer-reviewed journals:

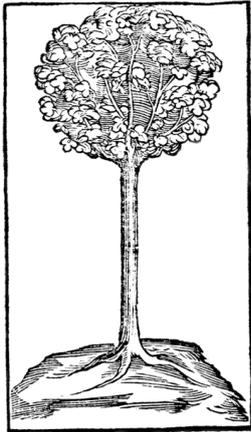
- A. Abdullaev, V. S. Chauhan, B. Muminov, J. O’Connell, V. A. Skuratov, M. Khafizov and Z. N. Utegulov «Thermal transport across nanoscale damage profile in sapphire irradiated by swift heavy ions», Journal of Applied Physics, 127, 035108 (2020). Editor’s pick at AIP Scilight.
- Vinay Chauhan, Azat Abdullaev, Zhandos Utegulov, Jacques O’Connell, V. Skuratov and Marat Khafizov «Simultaneous characterization of cross- and in-plane thermal transport in insulator patterned by directionally aligned nano-channels», AIP Advances 10, 015304 (2020).



SHARED BY PROF. ZHANDOS UTEGULOV



EL SASSAFRAS.

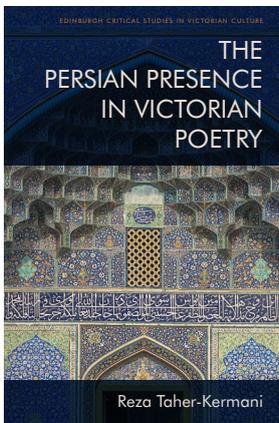


PROFESSOR GRIFFIN PUBLISHES IN LEADING GLOBAL HISTORY JOURNAL

In March of this year, SSH Assistant Professor Clare Griffin published in the *Journal of Global History*, a leading history journal publishing work on global connections. The article, entitled «disentangling commodity histories: pauame and sassafras in the early modern global world» looks at the global history of one American medicinal plant, known to the Timucua Native Americans as pauame, to early modern Europeans as sassafras, and today called *sassafras albidum*. This plant was originally only known to Native Americans, but after the European invasions of the Americas from 1492 onwards its root quickly became a popular medicinal substance in Eurasia, being used across Western Europe, in the Ottoman Empire, and reaching the Russian Empire by the early seventeenth century. As well as telling a thus-far unknown story of early Russian-American exchanges, this article also provides a model for understanding complex global exchanges of materials and ideas. As *sassafras albidum* was moved through different contexts, different parts of the plant were valued, the plant was given different names, and it was associated with various ideas about medicine and local or exotic plants. We can thus understand such global commodities not as single objects, but rather as shifting entanglements of names, objects, and ideas.

The full article can be read in open access [here](#).

SHARED BY PROF. CLARE GRIFFIN



THE UPCOMING BOOK BY PROF. REZA TAHERKERMANI TO BE PUBLISHED BY EDINBURGH UNIVERSITY PRESS

Prof. Reza Taherkermani from Languages, Linguistics and Literature Department publishes a book titled «The Persian Presence in Victorian Poetry» that will be released in May 2020. The book surveys the variety of ways in which Persia, and the multitude of ideological, historical, cultural and political notions that it embodied, were received, circulated and appropriated. Providing the first systematic index of nineteenth-century poems that were in any way involved with Persia, the book explores its presence across a broad range of works incorporating literary, historical and cultural material.

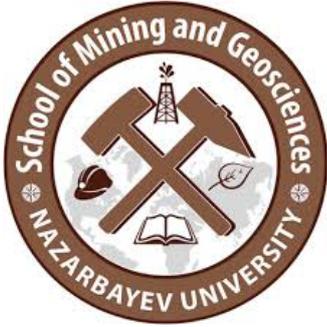
PREPARED BY PROF. REZA TAHERKERMANI



PROF. MICHAEL RYAN CO-EDITED A BOOK ON GENDER DYNAMICS IN THE MIDDLE EAST AND NORTH AFRICA

SSH prof. Michael Ryan and Dr. Helen Rizzo from the American University in Cairo co-edited a book titled «Gender in the Middle East and North Africa: Contemporary Issues and Challenges». The role of gender in the Middle East and North Africa is widely discussed—but often little understood. Seeking to close that gap, the authors of this comprehensive study explore a wide range of issues related to gender in the region as they have been unfolding since the Arab Spring.

SHARED BY PROF. MICHAEL RYAN



School of Mining and Geosciences

Associate Professor Saffet Yagiz and his Master of Science student published a joint manuscript in one of the most prestigious journal in mining engineering discipline



Prof. Saffet Yagiz



Aitolkyn Yazitova (M.Sc.)



Dr. Halil Karahan

SMG Prof. Saffet Yagiz and his Master of Science student Aitolkyn Yazitova published a joint manuscript in International Journal of Mining Reclamation and Environment, one of the most prestigious journal in mining engineering discipline.

In this manuscript, authors applied differential evaluation (DE) algorithm and compare its performance with the most common artificial intelligence techniques in the literature to assess rock brittleness and to develop rock brittleness classification (RBC) for excavatability. They stated that the DE algorithm can be applied for examining the rock brittleness (BI), the results shown that the obtained model and RBC system offered can be used in practice to estimate the BI for excavatability. This manuscript is the first publication of the SMG in 2020 and offering the RBC that will be used in worldwide rock excavation operation in mining geotechnical and civil engineering practices.

Rock Brittleness Classification (RBC) for Excavatability

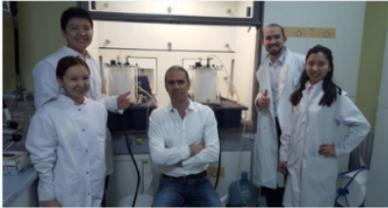
Brittleness Index	Description	Excavatability
>45	Extremely high	Extremely difficult
40-45	Very high	Very difficult
35-39	High	Difficult
30-34	Medium	Medium
25-29	Low	Easy
20-24	Very low	Very easy
<20	Extremely low (Ductile)	Extremely easy

Dr. Yagiz also reported that the manuscript is one of the main references for future studies to develop worldwide rock classification system to estimate and optimize the time and cost for mechanized rock excavation projects in both mining and civil engineering applications.

PREPARED BY PROF. SAFFET YAGIZ

PREPARED BY ESTG GROUP

ESTg appears in the international media



Thermal ablation therapy for cancer using nanomaterials

Researchers from Nazarbayev University are studying the application of nanomaterials in thermal ablation therapy. The use of nanomaterials could pose an attractive solution to the issue of side-effects and harmful by-products associated with existing methods, such as the damage of non-cancerous surrounding cells when targeting tumours.

M Middle East Medical Portal

Prof. Vasileios Inglezakis gave an interview about his and his colleagues' research projects conducted at NU. The interview is available on the [Middle East Medical Portal](#) - a resource for medical professionals providing educational articles on AI, regenerative medicine, cancer, surgery, and general medicine. This platform is a great outlet for exposure in the Middle East region.

Another international portal Med-Tech Innovation News published an article about the project of Prof. Vasileios Inglezakis. You can find more details by the following this [link](#). Med-Tech Innovation News is the only dedicated media serving the UK and Ireland medical device manufacturing sector. It provides a comprehensive overview for people

involved in the design and serves as a platform for connecting designers and manufacturers across the medical engineering and manufacturing community through the latest innovations.

1st GSPP Water Forum



Prof. Vasileios Inglezakis participated as moderator at the 1st GSPP Water Forum organized by GSPP Associate Professor Stefanos Xenarios with the focus on urban water management.

The Forum included a session on the challenges to be met in urban water management area in the 21st century while a roundtable discussion was concentrating on identifying similarities and differences of urban management in different regions in Europe and Asia. The given discussion involved six experts from IWA, along with representatives from World Bank, Committee of Water Resources and the Committee On Construction, Housing And Utilities Services from Nazarbayev University.

Nanomed secondments in Alicante

Alzhan Baimenov, a PhD candidate from School of Engineering and Digital Sciences, and Zhuldyz Baimenova, a research assistant, continue their scientific research that was conducted at NOVA University Lisbon, Portugal and at the University of Alicante, Spain over October 2019.

The one-month research was fully funded by the Horizon-2020 RISE international project “Novel Nanoporous Materials for Biomedical Applications” (acronym “NANOMED”). Their research is conducted at the Inorganic Chemistry Department under the supervision of Prof. Joaquin Silvestre-Albero (host) and Prof Vasileios Inglezakis (NU). Alzhan and Zhuldyz do experiments on the removal of iodide from natural seawater by Ag-modified cryogels. The XPS, IC, TGA and other analytical instruments were used to characterize the cryogels after the seawater treatment.

January 24th 2020... ESTg goes to Mars!



15 years ago the Mars exploration Rover landed on Mars. 15 years from now NASA plans to send people to Mars. In the meantime, we at NU, are contributing with research to be part of that journey.

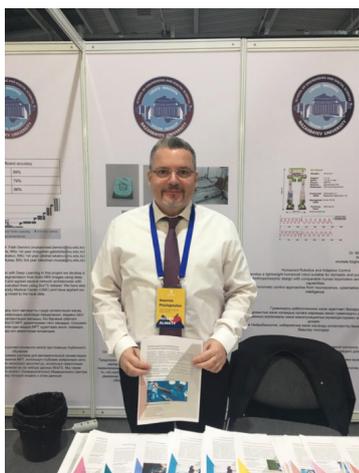
“In all our history we were turning challenges and problems into opportunities. Can we do it again?”

Watch full episodes about our trip to Mars on youtube:

[Episode 1](#)

[Episode 2](#)

NU Almaty Open House Event



Dr. Stavros Pouloupoulos, Associate Professor at the Chemical and Materials Engineering Department, joined the recruitment team for NU Open House event in Almaty. There were many potential applicants interested in all levels of NU programs. Specifically, Dr. Pouloupoulos gave two inspiring speeches on “Chemical and Materials Engineering: Profession, Study at Nazarbayev University and Career Prospects”. The presentation was followed by an Intellectual Game organized by Dr. Pouloupoulos, which was met with a great enthusiasm by the audience. Besides these presentations, ESTg co-Director spoke with tens of prospective students and parents and provided consultation and clarifications about the study in the School of Engineering and Digital Sciences of Nazarbayev University.

Abay-Verne Scholarship Program



Aziza Suleimenova, a MSc student at the Chemical and Materials Engineering Department under the supervision of Dr. Stavros Pouloupoulos, Associate Professor at the Chemical and Materials Engineering Department, was accepted to the University of Grenoble Alpes to join the Master program of Applied Corporate Management after being awarded a scholarship in the context of Abay-Verne (AV) Scholarship Program.

ESTg members are awarded the FRIP grant

Arslan Junissov and Akhmet Bekaliyev joined the Environmental Science and Technology Group as undergraduate researchers and have been working since Fall 2018 on the photocatalytic degradation of emerging pollutants in water under the supervision of Dr. Stavros Pouloupoulos, Associate Professor at the Chemical and Materials Engineering Department. They were recently awarded the Fostering Research and Innovation Potential Grant by Young Researchers Alliance, which amounts to 1,000,000 KZT for six months. Their work will be specifically focused on the preparation and testing of silver nanocomposites for the catalytic reduction of 4-nitrophenol to 4-aminophenol and the photocatalytic degradation of emerging pollutants in water.

#ESTgAlumni are conquering the world: South Korea



We continue to share with you the news about our alumni. Today we want to talk about Zhandos Tauanov, who currently works as a KRF (Korea Research Fellowship) Postdoctoral researcher at Chungnam National University, Research Institute of Materials Chemistry, Daejeon, South Korea. This program is a highly prestigious fellowship in South Korea (success rate 15%). The title of his research topic is “Development of chiral sensing device using chiral nanostructures”. He will work on the synthesis of chiral quantum dots with core-shell structures (FeSe, FeSe/ZnS) for biomedical sensing/imaging and optical applications;

design and optimization of synthesis as well as the advancement of optical properties by applying fundamental studies

Successful Research Proposal in the context of FDCRGP 2020-2022

The research proposal «CoPhoTEP: Cost-Effective Photocatalysts for the Treatment of Wastewaters containing Emerging Pollutants» of Dr. Stavros Pouloupoulos, an Associate Professor at the Chemical and Materials Engineering Department, under the internal grant program FDCRGP 2020-2022 has been officially accepted by NU Managing Council.

Dr. Inglezakis is participating as co-PI. Internationally established scientists will support the action, namely Dr. E. Chatzisyneon (h-index 20) from University of Edinburgh, Dr. D. Mantzavinou (h-index 65) from University of Patras, and Dr. D. Dionysiou (h-index 98) from the University of Cincinnati.



School of Engineering & Digital Sciences News

MARIE CURIE INDIVIDUAL FELLOWSHIP: BENEFITING SCIENCE WHERE NEEDED THE MOST



From Italy through Ireland to Kazakhstan. This has been the journey of a Marie Curie Individual Fellowship alumnus, Daniele Tosi. Daniele is currently an Associate Professor at Nazarbayev University, Kazakhstan who is spearheading a Biosensors group there. His personal life changed with coming to Kazakhstan as well, as he met his better half in this central Asian country. However, 7-8 years ago things were not the same for Daniele. As a fresh Ph.D. graduate he was about to apply for a prestigious Marie Curie fellowship for performing his research. We sat down with Daniele to understand how applying and winning the MC Individual fellowship influenced his later career and to learn about his insights on the scholarship.

Daniele Tosi in his early experienced researcher days. He was successful in applying and obtaining Marie Curie Individual fellowship 3 times.

Marie Curie (MC) individual fellowship is “one of the best projects you can find in Europe [for any fields], particularly as a postdoc, because you select where you would like to go,” says our guest. As a fresh Ph.D. graduate from Politecnico di Torino, Daniele chose to go to Ireland. He “came to choosing the host university step by step”. Having identified his research field, he looked at universities and narrowed down to 2-3 potential host institutions. Sometimes life works in mysterious ways, as one of the Universities, University of Ireland, happened to be collaborating with another University in Italy exactly on what Daniele hoped to work on - fiber optic sensors.

Having identified the host University for his potential project, Daniele found another appealing aspect of the MC fellowship – proposing his own idea from any field as a project, i.e. in a “bottom-up approach”. He talked about a study from Ireland that showed that best research was achieved not by calls for a specific fixed project, but by open calls when applicants suggest their own proposals. “In the top-down approach, funding agency runs research on identifying hot topics, then they make a call for these topics. By the time the proposals are selected in a year and more, and when the project can start, the field can go already obsolete. The technology cycles are so fast, that field can change in uncontrollable ways,” says Daniele. He thinks bottom-up approach of funding results in the best research and tries to apply it in his research group too. He likes when his team can suggest their ideas and experiments rather than being told what to work on.

While applying, with the freedom to choose the topic, however, came some challenges. Writing the proposal for the MC fellowship was the hardest part Daniele says. “Effectively there are three people involved in the proposal: your supervisor, research office, and the applicant. An applicant prepares the proposal, which consists of two parts.

Part A is compiled by the University you are going to and part B includes the proposal which is the hardest part [of the application],” he says. However, when asked what made his proposal successful, he says: “It took me 6 months to write the required 12 pages of the proposal. And every single word was there”. His word of advice on preparation was to start very early and to remember “in MC each word is weighted”. Additionally, an important part in Daniele’s opinion with the MC fellowship for postdocs is “to make a project that fits Marie Curie”. Since the grant is designed for scientists at the beginning of their careers, “training” part should be clear he says. The scholarship’s purpose is to help researchers by giving them training. For potential applicants, “identifying how Marie Curie helps to go to the next level of your career is key” Daniele adds. Once the proposal is crafted, the host university supervisor and research office usually check it for further improvements.

Besides writing the proposal, another challenge of application process is waiting for results. Evaluation process on European Union grants to this day takes long, ranging to 6 months. After 6 months, when the results came out, Daniele was one of the successful applicants, since his proposal earned more than 90% mark. Daniele says the advantage of passing the cut is not only “that you get funded, but also you can decide your starting date”. Usually awardees have about 1 year from the time of application, but also it is possible to defer it further with the project manager’s agreement. For those who have maternity/paternity leaves, the scholarship also “waits” for an applicant. The first time Daniele got awarded the fellowship he was allowed to defer the start date and stay in Torino due to personal matters for a year. Afterwards, his MC fellow years started in Limerick, Ireland.

Daniele’s fellowship in Ireland brought him independence in research, freedom and a good CV. “They treat you as an independent researcher, which you eventually become. And having the budget, which is only for you, is the main advantage,” he says about the fellowship. During his two years in Limerick, Daniele started “working at a completely different level” as he puts it. For example, once he was sitting on Friday night and deciding that he was to fly to the US to a conference on the Monday morning. Freedom of making your decisions and managing your funding is what attracts many researchers in MC fellowships. “During MC fellowship everything happened faster without having had to justify to anyone your decisions. Additionally, the project is flexible, if something is not working, it is not the end of the world” he reminisces. I ask him about the non-professional advantages he saw in MC. He added that “his university was proud of him and his name was even used as an advertising program to research fellows”. Daniele equates MC fellowship in Europe to Royal Society fellowship in the UK, which both of which are good to have on your resume.

When the project ended, however, like many other MC fellows, Daniele had a difficulty in finding a suitable job opportunity due to contrast in offered salaries and the one during his postdoc. He says as a postdoc he was saving 60% of his salary with not so lavish but also not cheap lifestyle in Limerick. The rent in Limerick was about 500 pounds. When the postdoc was ending he was offered to stay. “I liked Ireland, but I did not like the idea that my salary would have been cut by 40% if I were to continue at other offered positions there”. Going through interviews in Australia, Europe, Kazakhstan, Daniele finally decided to go for a faculty job at the fairly new university in Kazakhstan which he is part of up to this day.

Daniele nowadays works on optical fibers, biosensors for biomedical diagnostics, and nanomaterials. He says he is “at his best career years, which he would like to dedicate to research more”. He adds: “I enjoy the people I work with who are very smart and ambitious.” Reflecting on his past MC fellowship experience, Daniele is convinced that he wouldn’t have developed such independence as a researcher without it. Since he has come to Kazakhstan, he has been involved in moving a budget of 1.5 million dollars in equipment and grants. With all the challenges, he was able to build up his laboratory. “Here I was able to buy an instrument which cost was prohibitive for a purchase back in Ireland. The freedom of purchasing and setting up a lab here independently was a major advantage for me here.

I saw early how my field was developing and decided to take responsibility to buy whatever I needed to move my research forward,” he says. “Taking responsibility is important,” he adds and looks like his actions are paying off.

Looking back, Daniele is grateful for the MC fellowship and how his career turned out. I ask him to advice to potential MC fellowship applicants, and his advice was to “just apply”. “Many people spend too much time thinking about what they want to do, choosing the field. You should just go for it. The world moves fast. When you decide where you want to go, just go for it, don’t think too much”. MC fellowship is one of the prestigious, but also one of the most competitive ones too. Daniele has embraced failure as part of his academic life. “When you start applying, you fail. But when you fail, you understand how you should apply and you get better. It is a learning process. Even the best project in the world won’t be perfect the first time you put it on paper” he adds.

As Daniele, we also would like to encourage our readers to apply for a Marie Curie Individual Fellowship which is open for scholars and researchers in their early career. More resources below:

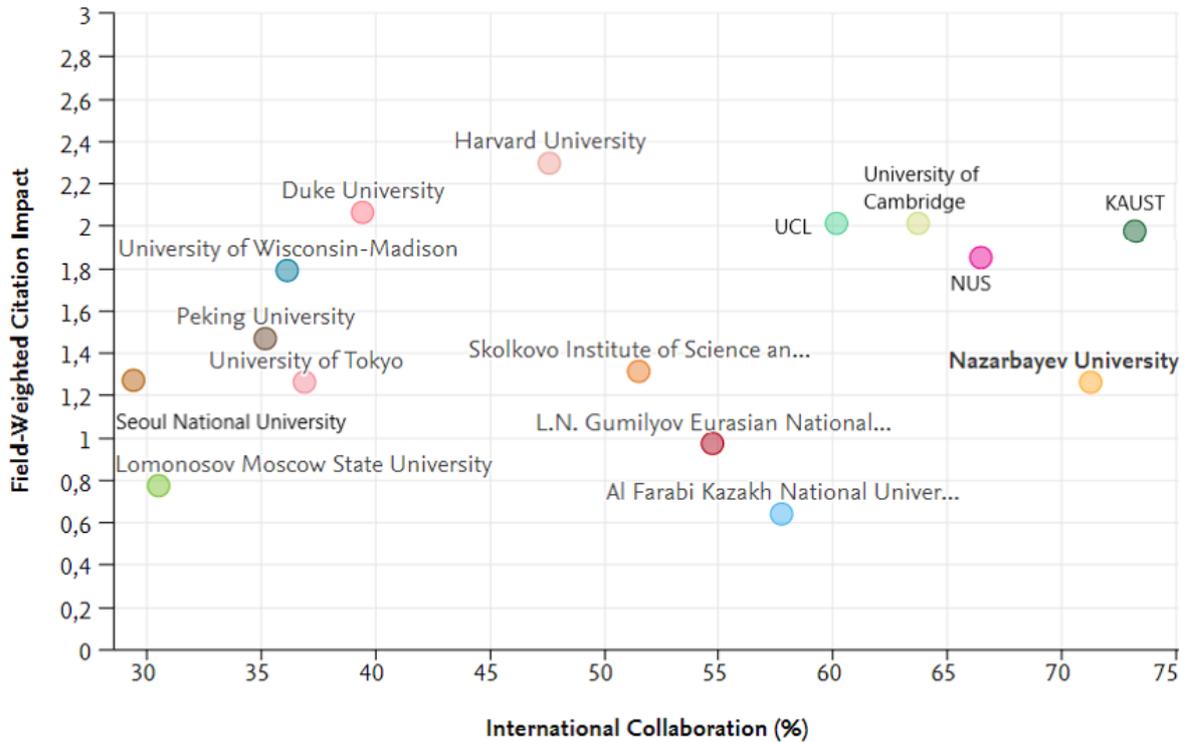
[Official website](#)

[Marie Curie Alumni Association in the UK](#)

WRITTEN BY GULSIM KULSHAROVA

THE ORIGINAL ARTICLE IS TAKEN FROM [KAZAKHSTAN PHD ASSOCIATION IN THE UNITED KINGDOM](#)

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 3,642 peer-reviewed publications indexed by Scopus, and have been cited 19,096 times for 2011-2020 period (Source: Scopus, April 21). The approximate number of citations per peer-reviewed publication is 5.24. The overall H-index of NU is 47, whereas H5-index is 28. The field-weighted citation impact is 1.26, meaning that our publications have been cited 26% more than would be expected based on the world average for similar publications.

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

#	<u>Opportunity</u>	<u>Funder</u>	<u>Deadline</u>	<u>Source link</u>
<u>1</u>	Annual Program Statement	US Embassy's Public Diplomacy Grants program	rolling dead-line	<u>URL</u>
<u>2</u>	Research Grants on Education: COVID-19 Related Special Grant Cycle	Spencer foundation	May 4, May 18, June 8	<u>URL</u>
<u>3</u>	Lyle Spencer Research Awards program	Spencer foundation	TBA	<u>URL</u>
<u>4</u>	The Large Research Grants on Education Program	Spencer foundation	June 18, 2020	<u>URL</u>
<u>5</u>	The Small Research Grants on Education Program	Spencer foundation	1) July 1, 2020 2) November 3, 2020	<u>URL</u>
<u>6</u>	William T. Grant Scholars program	William T. Grant Scholars foundation		<u>URL</u>
<u>7</u>	National Endowment for the humanities	National Endowment for the humanities		<u>URL</u>
<u>8</u>	Research Grants	The Harry Frank Guggenheim Foundation	August 1	<u>URL</u>
<u>9</u>	AWS Cloud Credits for Research	Amazon		<u>URL</u>
<u>10</u>	Elrha	call for research proposals to support the COVID-19 response in humanitarian settings.	Urgent call	<u>URL</u>
<u>11</u>	EDCTP 2020 calls for proposals	EDCTP		<u>URL</u>
<u>12</u>	ISDB-TWAS JOINT RESEARCH & TECHNOLOGY TRANSFER GRANT 2020: QUICK-RESPONSE RESEARCH ON COVID-19	Islamic Development Bank	June 4, 2020	<u>URL</u>
<u>13</u>	Knowledge SUCCESS (Strengthening Use, Capacity, Collaboration, Exchange, Synthesis, and Sharing) APS	US Agency for International Development	June 18, 2028	<u>URL</u>
<u>14</u>	Research Opportunities in Space Biology (ROSBio)	National Aeronautics and Space Administration	June 31, 2023	<u>URL</u>
<u>15</u>	Use of the NASA Physical Sciences Informatics System	National Aeronautics and Space Administration	September 14, 2022	<u>URL</u>
<u>16</u>	Broad Agency Announcement (BAA) for Energy Sector Self-Reliance (ESSR)	US Agency for International Development	February 5, 2022	<u>URL</u>
<u>17</u>	Pollution Prevention & Mitigation BAA	US Agency for International Development	February 5, 2022	<u>URL</u>
<u>18</u>	New Partnerships Initiative (NPI): Conflict Prevention & Recovery Program (CPRP)	US Agency for International Development	April 29, 2021	<u>URL</u>
<u>19</u>	NuSTAR Guest Observer - Cycle 6 (ROSES 2020)	National Aeronautics and Space Administration	January 22, 2021	<u>URL</u>

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