

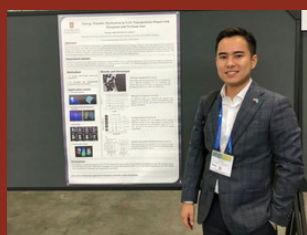
Research Newsletter

OFFICE OF THE PROVOST-RESEARCH ADMINISTRATION
QUARTERLY NEWSLETTER

ACS Student Award

SHARED BY PROF. TIMUR ATABAYEV

Congratulations to Mr. Shynggys Sadyk, the president of the International American Chemical Society Students Chapter at Nazarbayev University, for winning an ACS travel grant worth \$2,500. Every year ACS organizes two national meetings & expositions bringing together up to 13,000 chemists, chemical engineers, academicians, students, and other related professionals from all over the globe. Mr. Shynggys Sadyk presented his research results at the 256th ACS National Meeting & Exposition (August 19-23, 2018) in Boston, USA.



AWARDS

NU wins prizes at international events



NEWS

Research news of NU Schools and NLA



SCIVAL.COM

Up-to-date NU research performance evaluation using SciVal system



GRANTS

70+ international funding opportunities that NU faculty may apply for

Research News from Advanced Nanomaterials Lab

11th International Conference on Advanced Nanomaterials



4th grade students from the Department of Chemistry at School of Science and Technology Dimaral Aben, Yerkezhan Amangeldinova and Aktanberdi Askerbay, and a postdoctoral scholar Dr. Anara Molkenova from Advanced Nanomaterials Lab attended the 11th International Conference on Advanced Nanomaterials (ANM) in July 18-20, 2018.



ANM is considered as one of the most prestigious conferences in the field of Nanotechnology and Nanomaterials and held annually at the University of Aveiro in Portugal. The conference hosted participants from over 50 countries with 400 technical presentations. Our students had a great opportunity to showcase the research being conducted at Nazarbayev University. In addition, their research results will be published in a special issue of *Materials Today: Proceedings* (Scopus).

BY PROF. TIMUR ATABAYEV

School of Humanities & Social Sciences School news

SHSS faculty publish in the top-ranking academic press

SHARED BY DR. ANDREY
FILCHENKO

Okan Yilankaya published his paper "*Equilibria in Second Price Auctions with Private Participation Costs*" in *Economic Theory* (65, 231-249, 2018). The paper co-authored with Xiaoyong Cao, Guofu Tan and Guoqiang Tian, was recently published in *Economic Theory*, one of the top microeconomic theory journals. The main objective of this paper is to further our understanding of the consequences of endogenizing bidders' costly participation decisions in auctions. In particular, this paper studies the nature of equilibria in second-price auctions when both valuations and participation costs are private information of bidders.



In Kyung Kim published the paper "*Do MSRPs Decrease Prices?*" in *International Journal of Industrial Organization* (59, 429-457, 2018), one of the top journals on industrial economics. Kyung's paper co-authored with Babur I. De los Santos and Dmitry Lubensky exploits a policy experiment in which a ban on MSRPs (manufacturer's suggested retail prices) was imposed and then lifted a year later, and find suggestive evidence that MSRPs are aimed at consumers, possibly providing a benchmark by which consumers can evaluate prices.

Karine Yenokyan's paper "*Factor Augmentation, Factor Elimination, and Economic Growth*" has recently been accepted for publication in *Economic Inquiry*, one of prestigious Economics journals. The paper co-authored with John Seater develops a theoretical framework that helps to explain some current developments in the occupational employment occurring in the United States and other developed countries, such as displacement of middle-skill jobs and polarization of job opportunities between high-skill and low-skill occupational employment.

SHSS faculty presentation was accepted for a prestigious international Economics event

SHSS faculty presentation was accepted for a prestigious international Economics event. Professor Giulio Seccia's paper "*The role of trade credit and bankruptcy in business fluctuations*" with Prof. Mateos-Planas (Queen Mary University), was accepted for presentation at the American Economic Association meetings that will take place in Atlanta (GA) in January 2019. The paper is part of the project with the same title that was awarded research fundings under the NU Small Grant Program.



Environmental Science & Technology Group News

PREPARED BY DR. VASILEIOS
INGLEZAKIS

New Project – new opportunities

Prof. Inglezakis got a European Project under Erasmus+ Programme International credit mobility Key Action 1: Learning mobility of Individuals, promoting the international exchange of students and staff between higher education institutions in Erasmus+ Programme and Partner Countries.



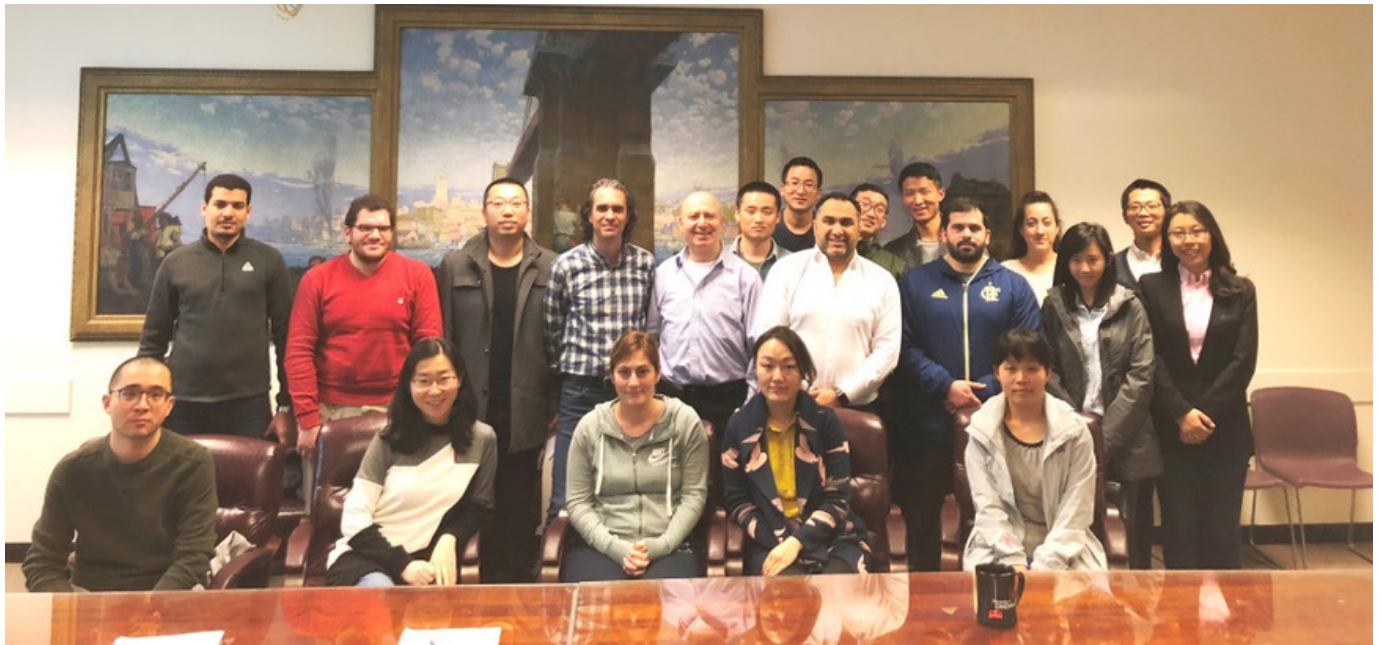
Erasmus+ now opens up the opportunities, allowing for mobility from other parts of the world to "Programme Countries", and for outgoing mobility for European students to go to "Partner Countries".

Credit mobility can be defined as a limited period of study or traineeship abroad (in the framework of on-going studies at a home institution) for the purpose of gaining credits. After the mobility phase, students return to their home institution, where the credits are recognised and they complete their studies.

How does it work?

Students and doctoral candidates are able to study abroad for a period of three months (or one academic term or trimester), up to a maximum of 12 months in each study cycle and may benefit from an Erasmus+ grant. Staff can spend a teaching and/or training period abroad from five days (excluding travel) to a maximum of two months and may also benefit from a grant. The grant for staff may provide funding for two additional days of travel (one before and one after the mobility).

Guest lecture of Prof. Inglezakis at the University of Cincinnati



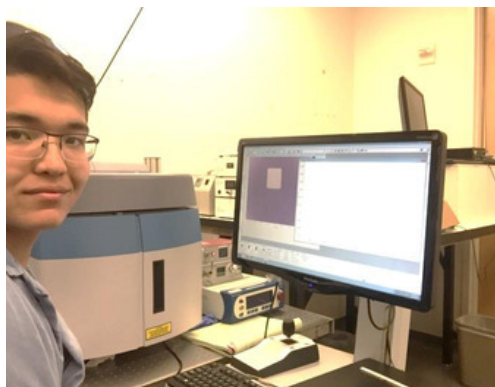
Prof. Inglezakis delivered an invited lecture on “Free and supported nanoparticles in the environment and medical applications” at the University of Cincinnati, US. On the photo with the distinguished Prof. Dionysiou of Department of Chemical & Environmental Engineering.

With a lot of luggage from Berkeley! With a baggage of knowledge

Aldiyar Kuntubek, a BEng in Chemical Engineering student, participated in a 2-month internship at The Molecular Foundry, Lawrence Berkeley National Lab, starting June 2018. The Molecular Foundry (<http://foundry.lbl.gov/>) is a US Department of Energy-funded nanoscience research facility that provides users from around the world with access to cutting-edge expertise and instrumentation in a collaborative, multidisciplinary environment.



The internship position, which was sponsored by Dr. Vasileios Inglezakis in the Chemical Engineering Department at Nazarbayev University, and hosted by Dr. Tevye Kuykendall, a Senior Scientific Engineer at The Molecular Foundry. The research project focused on the synthesis of 2D transition metal dichalcogenides (TMDs).



The project explored and optimized different synthetic conditions using a novel technique for synthesizing 2D TMDs through conversion of metal-oxide thin films formed by atomic layer deposition (ALD). Aldiyar made a significant progress in this research, which will likely lead to a publication. During the final weeks of the internship, Aldiyar prepared a poster presentation that he presented at the annual Molecular Foundry User Meeting. He also participated in the Foundry Poster

Slam at the User Meeting, where he presented a single slide summary of his poster in a 60-second pitch to all the meeting attendees.

How to spend summer effectively for your future career?

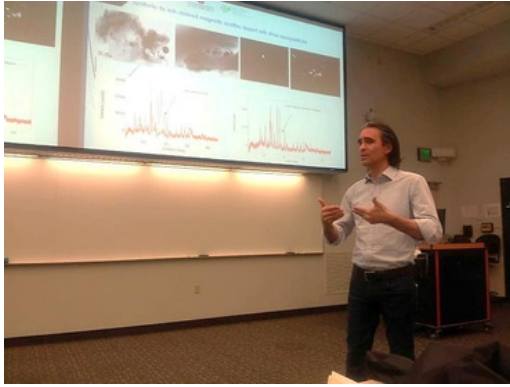
A young researcher Botagoz Kuspangalieva went to Japan for the University of Tokyo Summer Internship program (UTSIP) in Kashiwa.

This program aims to expose the undergraduates to the world-leading research activities in the field of natural science for 6-weeks and its scholarship is awarded only to 30 students through a competitive process around the world.



Botagoz is assigned to a laboratory of Professor Yoshito Oshima in the Department of Environmental Studies and will conduct a research project on organic synthesis using “supercritical water” as an environmental technology under his guidance.





Guest lecture of Prof. Inglezakis at Purdue University

Prof. Inglezakis delivered an invited lecture on “Free and supported nanoparticles for the environment and medical applications” at Purdue University, Neil Armstrong Hall of Engineering.

With a good mood and new like-minded people from Greece!



From the 11th to 16th June our just graduated student Bexultan Abylkhan have participated in NAXOS 2018 6th International Conference on Sustainable Solid Waste Management, Naxos, Greece. He successfully presented a paper entitled “Astana city Municipal Solid Waste Characterization”.



Another story about proactive summertime of our members! #ESTgmembersachievement



Our ESTg member, Almira Yagofarova is participating in a 2-month traineeship in the framework of Nanoporous and Nanostructured Materials for Medical Applications (NanoMed) project at the Universidad de Alicante, Spain. Almira has already characterized the adsorption properties and adsorption capacity of various types of cryogels and zeolites (modified and non modified) by scanning electron microscope (SEM) and measured the surface area of absorbents by Gas adsorption method. Moreover, she has aimed to determine the materials adsorption efficiency by using X-ray diffraction (XRD).

Site visits to municipal waste management facilities in the US

Prof. Inglezakis in collaboration with the University of Wisconsin-Madison organised a number of site visits to municipal waste management facilities in the US. During his 2-week stay Prof. Inglezakis visited the Dane County Solid Waste Management (Wisconsin), the South Milwaukee Landfill (Wisconsin), the Columbia County Recycling and Waste Processing Facility (Wisconsin), Calumet Industrial Waste Management Facility and Materials Recovery Facility (Illinois) and the Portage Materials Recovery Facility and Composting Facility (Wisconsin).



Zhandos Tauanov at 3rd EWaS International Conference, Lefkada Island, Greece

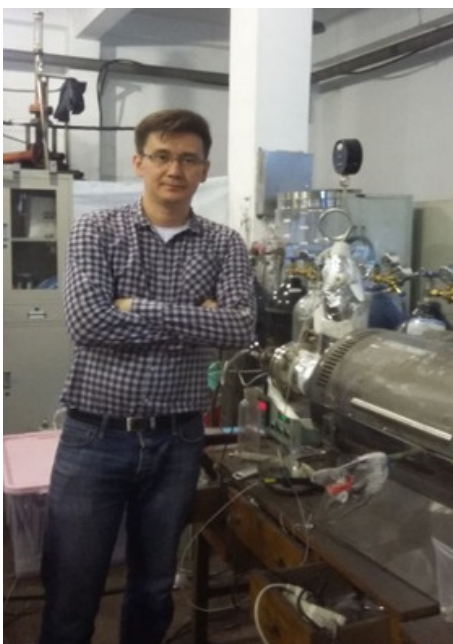
Our PhD candidate Zhandos Tauanov participated in the 3rd EWaS International Conference entitled “Insights on the Water-Energy-Food Nexus”, which was held in Lefkada Island, Greece, from 27th to 30th of June 2018.



Zhandos successfully introduced the paper, named as “*Silver nanoparticles impregnated zeolites derived from coal fly ash: Effect of the silver loading on adsorption of mercury (II)*” (Authors: Zhandos Tauanov, Dhawal Shah, Grigorios Itskos, Vasileios Inglezakis). The Conference’s topics deal with hydraulics, hydrology, water resources systems management, urban water management,

riverine systems, hydrodynamics and waves, global changes & smart cities, hydrology, raw and waste water treatment, waste management, groundwater and irrigation systems and advanced methods for environmental system analysis.

Another story about proactive summertime of our members



Dr. Yerbol Sarbassov (post-doctoral scholar) has made his first visit to School of Energy and Environment of Southeast University (Nanjing, China) under Social Policy Grant-2018 to participate in the research project “SO₃ formation mechanisms during oxy-fuel combustion at high pressure”.

New Publications:

Journal papers

1. Daniele Tosi, Sanzhar Korganbayev, Madina Jelbuldina, Kanat Dukenbayev, Alina Korobeinyk, Vasileios Inglezakis, "Real time Temperature Monitoring in Liver during Magnetite Nanoparticle-enhanced Microwave Ablation with Fiber Bragg Grating sensors: Ex Vivo Analysis" , IEEE Sensors Journal
2. Z.Tauanov, P.E.Tsakiridis, S.V.Mikhailovsky, V.J.Inglezakis, "Synthetic coal fly ash-derived zeolites doped with silver nanoparticles for mercury (II) removal from water", Journal of Environmental Management.
3. Noya, V. Inglezakis, S. González-García, E. Katsou, G. Feijoo, M.T.Moreira, "Comparative environmental assessment of alternative waste management strategies in developing regions: a case study in Kazakhstan", Waste Management & Research Journal
4. Vassilis J. Inglezakis, Stavros G. Pouloupoulos and Hossein Kazemian, "Insights into the S-shaped sorption isotherms and their dimensionless forms", Microporous and Mesoporous Materials Journal
5. Madina Jelbuldina, Alina Korobeinyk, Sanzhar Korganbayev, Vassilis Inglezakis, Daniele Tosi, "Fiber Bragg Grating Based Temperature Profiling in Ferromagnetic Nanoparticles-Enhanced Radiofrequency Ablation", Optical Fiber Technology Journal
6. Theoni Maria Massara, Alper Erdem Yilmaz, Ibrahim Cengiz, Simos Malamis, Murat Tolga Yilmaz, Okan Tarik Komesli, , Peyo Stanchev, Vasileios J. Inglezakis, Evina Katsou, "The effect of initial pH and retention time on boron removal by continuous electrocoagulation process", Desalination and Water treatment Journal

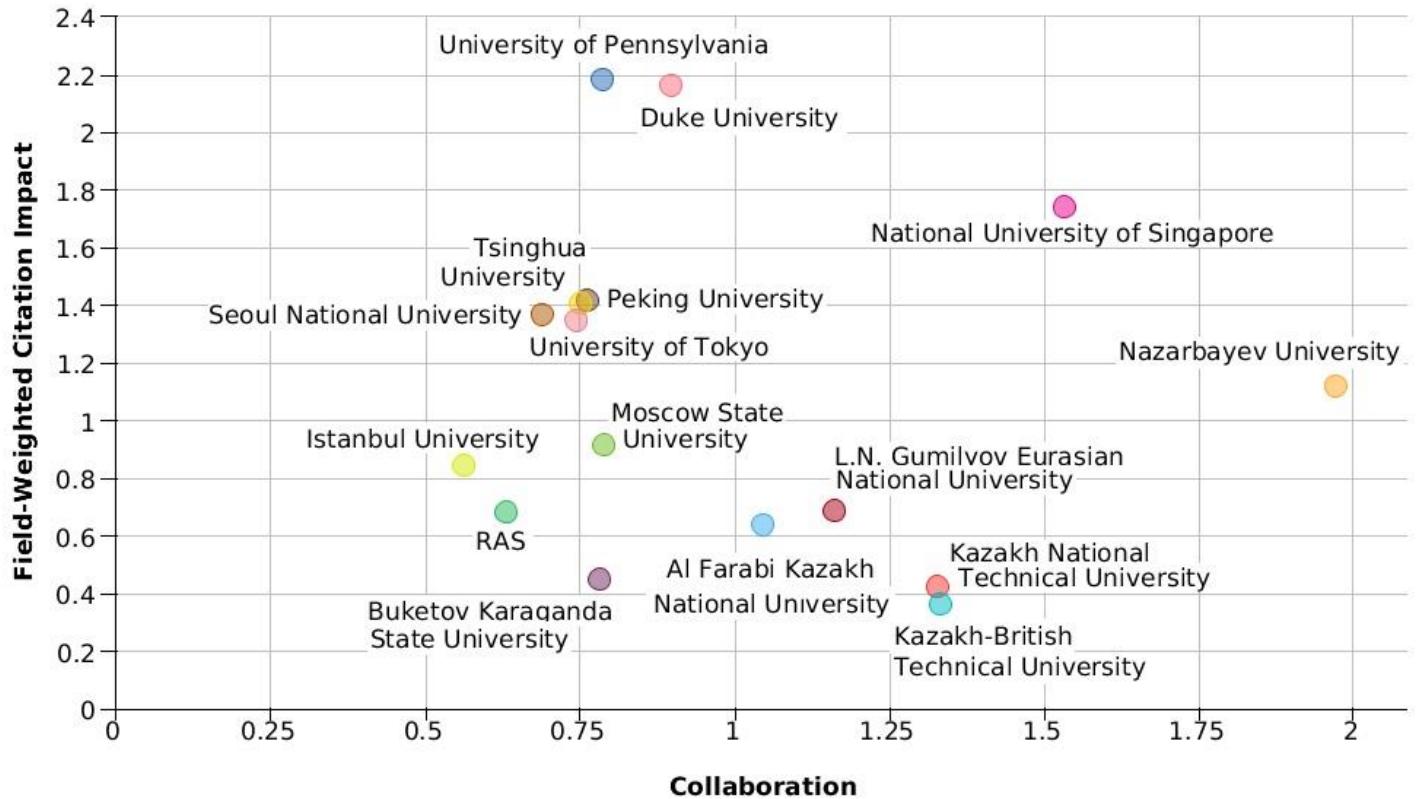
Conference papers

1. Ardak Makhatova, Vassilis J. Inglezakis and Stavros G. Pouloupoulos, Photochemical treatment of a municipal solid waste landfill leachate, 2018 3rd International Conference on Environmental Engineering and Sustainable Development (CEESD 2018), November 30, 2018, Penang, Malaysia. Link: <http://www.ceesd.net/>
2. Vassilis J. Inglezakis, A Critical Review on the Merits and Fallacies of Adsorption Kinetics Models, AIChE Annual Conference, October 30, 2018, Pittsburgh, USA (Plenary lecture). Link: <https://www.aiche.org/conferences/aiche-annual-meeting/2018>
3. Gaukhar Balbayeva, Yerbol Sarbassov, Christos Venetis, Tolkyn Sagalova, Diyar Tokmurzin, Berik Aiymbetov, Bexultan Abylkhani, Almira Yagofarova, Edward Anthony and Vassilis J. Inglezakis, Waste Management in International Airports: A Case Study of Astana Airport, October 30, 2018, Pittsburgh, USA (Oral Presentation). Link: <https://www.aiche.org/conferences/aiche-annual-meeting/2018>

4. Alina Korobeinyk, Stavros Pouloupoulos, Aliya Sataeva, Aigerim Chinakulova and Vassilis J. Inglezakis, Decolouration of Dye Solutions By Oxidation with H₂O₂ in the Presence of Modified Natural Zeolites, AIChE Annual Conference, October 31, 2018, Pittsburgh, USA (Poster session). Link: <https://www.aiche.org/conferences/aiche-annual-meeting/2018>
5. Vassilis J. Inglezakis, Stavros Pouloupoulos, Alzhan Baimenov, Dmitry Berillo, Novel Amphoteric Cryogels for Sr²⁺ and Cs²⁺ Ions Removal from Aqueous Solutions, AIChE Annual Conference, November 2, 2018, Pittsburgh, USA (Oral Presentation). Link: <https://www.aiche.org/conferences/aiche-annual-meeting/2018>
6. A.V Korobeinyk, V.R Yapyiev, S.Azat and V. J Inglezakis, Assessment of total mercury content in water of the Balkyldak Lake-reservoir, Pavlodar, Kazakhstan, 8th International Conference on Environment Science and Engineering (ICESE 2018), 11-13 March 2018, Barcelona, Spain. Link: <http://iopscience.iop.org/article/10.1088/1755-1315/167/1/012006/pdf>
7. Kalyvas T., Pouloupoulos S., Zervas E., Spatial and temporal temperature variability in Greece, 14th International Conference on Meteorology, Climatology and Atmospheric Physics, October 15-17, 2018, Alexandroupolis, Greece. Link: <http://comecap2018.gr/>
8. Kalyvas T., Pouloupoulos S., Zervas E., PCA analysis of temperature variability in Greece, 14th International Conference on Meteorology, Climatology and Atmospheric Physics, October 15-17, 2018, Alexandroupolis, Greece. Link: <http://comecap2018.gr/>
9. E Zervas, C Tzalonikou, K Konstantopoulos, S Pouloupoulos, E Litsiou, K Glynos, P Katsaounou, Smoking habits of EU15 countries citizens under the view of Environmental Kuznets Curve (EKC), 49th Union World Conference on Lung Health, 24-27 October, 2018, The Hague, The Netherlands. Link: <https://thehague.worldlunghealth.org/>
10. Madina Jelbuldina, Sanzhar Korganbayev, Alina V. Korobeinyk, Vassilis J. Inglezakis, Daniele Tosi, Fiber Bragg Grating Sensors for Temperature Monitoring during Nanoparticle-assisted Microwave Ablation, 26th International Conference on Optical Fibre Sensors, September 24-28, 2018, Switzerland. Link: <https://www.ofs26.org/>
11. Varvitsioti A., Alegras S., Mikeli D., Pouloupoulos S., Zervas E., Development of an Index of Air Quality in Athens, 14th International Conference on Meteorology, Climatology and Atmospheric Physics, October 15-17, 2018, Alexandroupolis, Greece. Link: <http://comecap2018.gr/>
12. Kalyvas T., Pouloupoulos S., Zervas E., World trend of the scientific production on climate change, 14th International Conference on Meteorology, Climatology and Atmospheric Physics, October 15-17, 2018, Alexandroupolis, Greece. Link: <http://comecap2018.gr/>

13. Stavros G. Pouloupoulos, Aphrodite Totorou, Constantine J. Philippopoulos, Photochemical Degradation of Ibuprofen in Aqueous Solutions, 20th International Conference on Chemistry, Chemical Engineering and Chemical Process, April 12–13, 2018, Venice, Italy. Link: <https://waset.org/conference/2018/04/venice/ICCCECP>
14. Stavros G. Pouloupoulos, Azat Yerkinova, Gaukhar Balbayeva, Vassilis J. Inglezakis, Photocatalytic Treatment of Organic Pollutants in a Synthetic Wastewater Using UV light and Combinations of TiO₂, H₂O₂ and Fe(III), 25th International Conference on Chemical Reaction Engineering, ISCRE25, 20–23 May, Florence, Italy, 2018. Link: <http://www.aidic.it/iscre25/>
15. A.V. Korobeinyk, A.R. Satayeva, A.N. Chinakulova and V.J. Inglezakis, Iodide removal by use of Ag-modified natural zeolites, 9th International Conference on Environmental Science and Technology, June 20–22, Prague, Czech Republic, 2018 (Oral). Link: <http://www.icest.org/cfp.html>
16. A.V. Korobeinyk and V.J. Inglezakis, Silver nanoparticles synthesised within the silica matrix in hyperstoichiometrical of mercury from aqueous solutions, 9th International Conference on Environmental Science and Technology, June 20–22, Prague, Czech Republic, 2018. Link: <http://www.icest.org/cfp.html>
17. Madina Jelbuldina, Sanzhar Korganbayev, Alina V. Korobeinyk, Vassilis J. Inglezakis, and Daniele Tosi, Temperature Profiling of ex-vivo Organs during Ferromagnetic Nanoparticles-Enhanced Radiofrequency Ablation by Fiber Bragg Grating Arrays, 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'18), Honolulu, HI, USA, July 17–21, 2018 (Oral). Link: <https://embc.embs.org/2018/>
18. Z.Tauanov, V.Inglezakis, S.Mikhailovsky, Coal fly ash derived nanocomposite for mercury removal from wastewater, Carbon 2018, July 1–6, Madrid, Spain (2018) (Keynote lecture). Link: <https://carbon2018.org/>
19. Diyar Tokmurzin, Berik Aiymbetov, Bexultan Abylkhani, Almira Yagofarova, Yerbol Sarbassov, Vasilis Inglezakis, Christos Venetis, Desmond Adair, Stavros G. Pouloupoulos, Characterization, pyrolysis and gasification of refuse derived fuel, organic fraction of municipal solid waste, coal and their mixture blends in fixed bed, 4th International Conference on Low Carbon Asia and Beyond (ICLCA2018), Johor Bahru, Malaysia, 24 – 26 October, 2018. Link: <http://www.utm.my/iclca/>

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 1,965 peer-reviewed publications indexed by Scopus, and have been cited 6,628 times (Source: SciVal, September 25). The approximate number of citations per peer-reviewed publication is 3.4.

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	Source	Award ceiling	Deadline	Direct
1	SFS-37-2019: Integrated approaches to food safety controls across the food chain	Horizon 2020 Framework Programme	8,000,000 EUR	2019-01-23	Link
2	Research fellowship grant program	Tree Research and Education Endowment Fund	100,000 USD	2019-03-15	Link
3	Molecular separations	National Science Foundation	Up to 100,000 USD	N/A	Link
4	Catalysis	National Science Foundation	Up to 150,000 USD	N/A	Link
5	LC-BAT-7-2019: Network of Li-ion cell pilot lines	Horizon 2020 Framework Programme	2,000,000 EUR	2019-04-25	Link
6	Human clinical trial grant	Muscular Dystrophy Association	N/A	2018-11-30	Link
7	The role of epitranscriptomics in development and disease	National Institutes of Health	Up to 499,999 USD	2018-11-07	Link
8	Ocular gene therapy	National Institutes of Health	N/A	N/A	Link
9	SC1-BHC-07-2019 : Regenerative medicine: from new insights to new applications	Horizon 2020 Framework Programme	50,000,000 EUR	2019-04-16	Link
10	BIOTEC-02-2019: Boosting the efficiency of photosynthesis (RIA)	Horizon 2020 Framework Programme	31,000,000 EUR	2019-01-22	Link
11	Biosensing	National Science Foundation	Up to 180,000 USD	N/A	Link
12	Process systems, Reaction engineering and Molecular thermodynamics	National Science Foundation	Up to 100,000 USD	N/A	Link
13	Model based development of electrodes structures of anion exchange membrane water electrolyser	Deutscher Akademischer Austauschdienst	N/A	N/A	Link
14	Roger Taylor award	Society of Chemical Industry	Up to 800 GBP	2019-03-20	Link

#	Program	Source	Award ceiling	Deadline	Direct
15	ICT-30-2019-2020: An empowering, inclusive Next Generation Internet	Horizon 2020 Framework Programme	7,000,000 EUR	2019-03-28	Link
16	WIDESPREAD-04-2019 - ERA Chairs	Horizon 2020 Framework Programme	30,000,000 EUR	2018-11-15	Link
17	Advanced Technologies and Instrumentation	National Science Foundation	8,000,000 USD	2018-11-15	Link
18	SC1-HCO-15-2019: Support for the functioning of the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R)	Horizon 2020 Framework Programme	1,000,000 EUR	2019-04-16	Link
19	Project Grants	Kay Kendall Leukaemia Fund	N/A	2019-02-28	Link
20	BRAIN Initiative: Targeted BRAIN Circuits planning projects - TargetedBCPP	National Institutes of Health	Up to 450,000 USD with total funding of 2,500,000 USD	2019-07-15	Link
21	MSCA-RISE-2019: Research and innovation staff exchange	Horizon 2020 Framework Programme	80,000,000 EUR	2019-04-02	Link
22	Research and Training Grants	Federation of European Microbiological Societies	Up to 4,000 EUR	2019-01-01	Link
23	Collaborative Innovation Development Grant	Saskatchewan Health Research Foundation	Up to 50,000 CAD with total funding of 450,000 CAD	2018-11-15	Link
24	New Investigator Grants	Economic and Social Research Council	Up to 300,000 GBP	N/A	Link
25	2018 Tailored collaboration program	Water Research Foundation	Up to 100,000 USD	N/A	Link
26	PCRF Award project grants	Pancreatic Cancer Research Fund	Up to 200,000 GBP	2019-04-09	Link
27	RUR-15-2018-2019-2020 - Thematic networks compiling knowledge ready for practice	Horizon 2020 Framework Programme	10,000,000 EUR	2019-01-23	Link
28	DT-ICT-01-2019 : Smart anything everywhere	Horizon 2020 Framework Programme	48,000,000 EUR	2019-04-02	Link

#	Program	Source	Award ceiling	Deadline	Direct
29	DT-FOF-05-2019: Open Innovation for collaborative production engineering (IA)	Horizon 2020 Framework Programme	106,600,000 EUR	2019-02-21	Link
30	LC-SC3-NZE-5-2019-2020: Low carbon industrial production using CCUS	Horizon 2020 Framework Programme	33,000,000 EUR	2019-09-27	Link
31	LC-SC3-JA-3-2019: European Pre-Commercial Procurement Programme for Wave Energy Research &Development	Horizon 2020 Framework Programme	20,000,000 EUR	2019-08-27	Link
32	SC5-16-2019: Development of commercial activities and services through the use of GEOSS and Copernicus data - IA Innovation action	Horizon 2020 Framework Programme	15,000,000 EUR	2019-02-19	Link
33	DT-ICT-07-2018-2019 : Digital manufacturing platforms for connected smart factories - CSA Coordination and support action , IA Innovation action - single-stage	Horizon 2020 Framework Programme	45,000,000 EUR	2019-04-02	Link
34	TRANSFORMATIONS-04-2019-2020: Innovative approaches to urban and regional development through cultural tourism	Horizon 2020 Framework Programme	9,000,000 EUR	2019-03-14	Link
35	MSCA-COFUND-2019: Co-funding of regional, national and international programmes	Horizon 2020 Framework Programme	55,000,000 EUR	2019-09-26	Link
36	SU-DRS04-2019-2020: Chemical, Biological, Radiological And Nuclear (CBRN) Cluster	Horizon 2020 Framework Programme	10,500,000 EUR	2019-08-22	Link
37	Biological oceanography	National Science Foundation	N/A	2019-02-15	Link
38	SU-SPACE-23-SEC-2019: Advanced research in Near Earth Objects (NEOs) and new payload technologies for planetary defence	Horizon 2020 Framework Programme	6,000,000 EUR	2019-03-12	Link
39	Chemical oceanography	National Science Foundation	N/A	2019-02-15	Link
40	Physical oceanography	National Science Foundation	N/A	2019-02-15	Link

#	Program	Source	Award ceiling	Deadline	Direct
41	Geospace Facilities (GF)	National Science Foundation	N/A	N/A	Link
42	Magnetospheric physics	National Science Foundation	N/A	N/A	Link
43	SC5-10-2019-2020: Raw materials innovation actions: exploration and Earth observation in support of sustainable mining	Horizon 2020 Framework Programme	20,000,000 EUR	2019-02-19	Link
44	LC-SPACE-05-EO-2019 : Copernicus evolution – Research activities in support to a European operational monitoring system for fossil CO2 emissions	Horizon 2020 Framework Programme	9,000,000 EUR	2019-03-12	Link
45	BG-07-2019-2020 - The future of seas and oceans flagship initiative	Horizon 2020 Framework Programme	18,000,000 EUR	2019-01-23	Link
46	DT-SPACE-01-EO-2018-2020 : International Cooperation Copernicus - Designing EO downstream applications with international partners	Horizon 2020 Framework Programme	5,000,000 EUR	2019-03-12	Link
47	LC-SC3-NZE-4-2019: Integrated solutions for flexible operation of fossil fuel power plants through power-to-X-to-power and/or energy storage	Horizon 2020 Framework Programme	20,000,000 EUR	2019-09-27	Link
48	LC-SC3-ES-6-2019: Research on advanced tools and technological development - RIA Research and Innovation action	Horizon 2020 Framework Programme	25,350,000 EUR	2019-02-05	Link
49	LC-SC3-ES-1-2019: Flexibility and retail market options for the distribution grid	Horizon 2020 Framework Programme	37,300,000 EUR	2019-02-05	Link
50	LC-SC3-RES-23-2019: Development of next generation biofuel and alternative renewable fuel technologies for aviation and shipping	Horizon 2020 Framework Programme	20,000,000 EUR	2019-08-27	Link
51	LC-SPACE-05-EO-2019 : Copernicus evolution – Research activities in support to a European operational monitoring system for fossil CO2 emissions	Horizon 2020 Framework Programme	9,000,000 EUR	2019-03-12	Link

#	Program	Source	Award ceiling	Deadline	Direct
52	LC-NMBP-29-2019: Materials for non-battery based energy storage (RIA)	Horizon 2020 Framework Programme	65,100,000 EUR	2019-01-22	Link
53	CE-NMBP-25-2019: Photocatalytic synthesis (RIA)	Horizon 2020 Framework Programme	18,460,000 EUR	2019-01-22	Link
54	LCE-07-2016-2017: Developing the next generation technologies of renewable electricity and heating/cooling	Horizon 2020 Framework Programme	64,500,000 EUR	N/A	Link
55	LC-SC3-EE-5-2018-2019-2020:Next-generation of energy performance assessment and certification - IA Innovation action	Horizon 2020 Framework Programme	10,000,000 EUR	2019-09-03	Link
56	LC-GV-04-2019: Low-emissions propulsion for long-distance trucks and coaches	Horizon 2020 Framework Programme	25,000,000 EUR	2019-04-25	Link
57	DT-FOF-08-2019: Pilot lines for modular factories (IA 50)	Horizon 2020 Framework Programme	106,600,000 EUR	2019-02-21	Link
58	LC-MG-1-7-2019: Future propulsion and integration: Towards a hybrid/electric aircraft (InCo flagship)	Horizon 2020 Framework Programme	15,000,000 EUR	2019-04-25	Link
59	ICT-08-2019: Security and resilience for collaborative manufacturing environments	Horizon 2020 Framework Programme	11,000,000 EUR	2019-03-28	Link
60	LC-BAT-5-2019: Research and innovation for advanced Li-ion cells (generation 3b)	Horizon 2020 Framework Programme	30,000,000 EUR	2019-04-25	Link
61	Combustion and fire systems	National Science Foundation	Up to 100,000 USD	N/A	Link
62	Mechanics of Materials and Structures (MOMS)	National Science Foundation	N/A	N/A	Link
63	Dynamics, Control and Systems Diagnostics (DCSD)	National Science Foundation	N/A	N/A	Link
64	Advanced Manufacturing (AM)	National Science Foundation	N/A	N/A	Link

#	Program	Source	Award ceiling	Deadline	Direct
65	Civil Infrastructure Systems (CIS)	National Science Foundation	N/A	N/A	Link
66	Energy, Power, Control, and Networks (EPCN)	National Science Foundation	N/A	N/A	Link
67	ICT-06-2019: Unconventional Nanoelectronics	Horizon 2020 Framework Programme	30,000,000 EUR	2019-03-28	Link
68	CE-RUR-10-2019 - Circular bio-based business models for rural communities	Horizon 2020 Framework Programme	20,000,000 EUR	2019-01-23	Link
69	CE-BIOTEC-05-2019: Microorganism communities for plastics biodegradation (RIA)	Horizon 2020 Framework Programme	10,000,000 EUR	2019-03-05	Link
70	Atmospheric chemistry	National Science Foundation	N/A	N/A	Link
71	LC-CLA-05-2019 - Human dynamics of climate change	Horizon 2020 Framework Programme	23,000,000 EUR	2019-02-19	Link
72	LC-CLA-02-2019 - Negative emissions and land-use based mitigation assessment	Horizon 2020 Framework Programme	22,000,000 EUR	2019-02-19	Link
73	CE-BG-06-2019 - Sustainable solutions for bio-based plastics on land and sea	Horizon 2020 Framework Programme	18,000,000 EUR	2019-01-23	Link
74	SC5-21-2019-2020: ERA-NET Cofund action(s) for climate action, environment, resource efficiency and raw materials	Horizon 2020 Framework Programme	10,000,000 EUR	2019-02-19	Link
75	SFS-23-2019: Integrated water management in small agricultural catchments	Horizon 2020 Framework Programme	14,000,000 EUR	2019-01-23	Link
76	CE-RUR-08-2018-2019-2020 - Closing nutrient cycles: IA Innovation action	Horizon 2020 Framework Programme	8,000,000 EUR	2019-01-23	Link
77	SFS-04-2019-2020: Integrated health approaches and alternatives to pesticide use	Horizon 2020 Framework Programme	15,000,000 EUR	2019-01-23	Link

#	Program	Source	Award ceiling	Deadline	Direct
78	LC-CLA-07-2019 - The changing cryosphere: uncertainties, risks and opportunities - CSA Coordination and support action	Horizon 2020 Framework Programme	2,000,000 EUR	2019-02-19	Link
79	LC-CLA-07-2019 - The changing cryosphere: uncertainties, risks and opportunities - RIA Research and Innovation Action	Horizon 2020 Framework Programme	39,000,000 EUR	2019-02-19	Link
80	LC-CLA-06-2019 - Inter-relationships between climate change, biodiversity and ecosystem services	Horizon 2020 Framework Programme	25,000,000 EUR	2019-02-19	Link
81	LC-MG-1-6-2019: Aviation operations impact on climate change (InCo flagship)	Horizon 2020 Framework Programme	10,000,000 EUR	2019-04-24	Link
82	CE-SFS-39-2019: High-quality organic fertilisers from biogas digestate	Horizon 2020 Framework Programme	5,000,000 EUR	2019-01-23	Link
83	SwafS-17-2019: Consolidating and expanding the knowledge base on citizen science	Horizon 2020 Framework Programme	2,500,000 EUR	2019-04-02	Link
84	The USAID Biodiversity BAA for Global forestry and biodiversity conservation	United States Agency for International Development	N/A	N/A	Link
85	Nutrition innovations in complex environments	United States Agency for International Development	N/A	2019-05-02	Link
86	Innovations for improving health system performance	United States Agency for International Development	N/A	2019-03-07	Link
87	Equilibrium states for dynamical systems arising from geometry	American Institute of Mathematics	N/A	2019-01-16	Link
88	LC-BAT-6-2019: Li-ion cell materials & transport modelling	Horizon 2020 Framework Programme	13,000,000 EUR	2019-04-25	Link
89	Modeling and Simulation to Optimize HIV Prevention Research (MS OPR)	National Institutes of Health	Up to 400,000 USD with total funding of 2,400,000 USD	2018-12-13	Link
90	Modeling, simulation, and training fellowships	Link Foundation	Up to 29,000 USD	2019-01-15	Link