RESEARCH

Research Services Office Newsletter

Issue 13, December 30, 2016

NAZARBAYEV UNIVERSITY

NEWSLETTER HIGHLIGHTS

Dear Colleagues and Students!

As the holiday season is once again upon us, we would like to take this opportunity to wish everyone Happy Holidays! We hope your year has been full of valuable research and academic achievements, and that *our newsletter* has helped to play a role in providing useful research information.

We are grateful for the positive interactions we have had with so many of you throughout the year in many venues, including this newsletter, in-person meetings, workshops, seminars and social media. We look forward to continuing to engage with you on research issues in 2017.

In this issue we prepared for you a special interview with Dr. Atakan Varol, School of Science and Technology, who is in our *In the Spotlight* column. You also can find plenty of useful information on the events that were held in the last month of the year, as well as the information on the new funding opportunities.

Don't forget to take a look at our *New Publications* and *Congratulations* sections to congratulate your colleagues on their recent achievements in research activities. Please also take a look at the *Announcement section*, which might contain useful information for you as well.

As we all hopefully slow down to enjoy time with family and friends and ring in a New Year, let's remember to bring the cheer and gratitude we feel back with us to our 2017 newsletter communications.

Happy Holidays!

Sincerely,
Your Research Team

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IN THE SPOTLIGHT

Interview with Atakan Varol, Department Chair, Dept. of Robotics and Mechatronics, School of Science and Technology

Atakan Varol received the B.S. degree in mechatronics engineering from Sabanci University, Turkey, in 2005, and the M.S. and Ph.D. degrees in electrical engineering from Vanderbilt University, USA, in 2007 and 2009, respectively. From 2009 to 2011, he was first a Post-Doctoral Research Associate and then a Research Assistant Professor with the Center for Intelligent Mechatronics, Department of Mechanical Engineering, Vanderbilt University.

In 2011, he joined the faculty of Nazarbayev University as an Associate Professor of Robotics, where he currently chairs the department and directs the Advanced Robotics and Mechatronics Systems (ARMS) Laboratory. His research interests include design and control of biomechatronic systems, variable impedance actuation, machine learning, and embedded systems. He has authored over 50 technical papers on related topics in international journals and conferences.

He was a finalist for the KUKA Innovation Award in 2014. He was also the recipient of the IEEE International Conference on Rehabilitation Robotics Best Paper Award in 2009, and the IEEE Engineering in Medicine and Biology Society Outstanding Paper Award in 2013. He is a technical editor of IEEE/ASME Transactions on Mechatronics and senior member of IEEE.

Research Team: Thank you for agreeing to have an interview with us and to share

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information about your current activities and future plans.

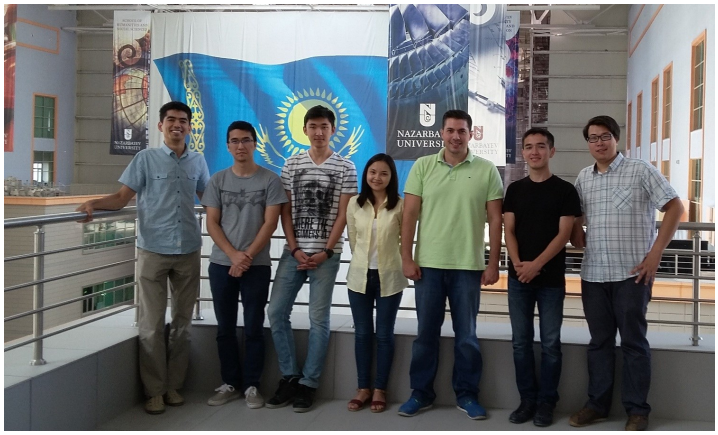
Atakan Varol: It's my pleasure.

RT: This interview will be in the December issues of our Research Newsletter. End of the year is always the best time to sum up the results of year's activities and may be to draw a line under some of them. Please tell us about your projects in 2016. What were the main challenges and the main successes of 2016?

AV: In 2016, we continued our flagship project on the design and control of variable impedance actuated robots with considerable success. Our papers in journals and conferences on this topic are very well-received. Thanks to the inflow of highly-qualified and motivated graduate students, we also started a new project on robotic construction of tensegrity structures. Initial results of my MS students are highly promising. I plan to devote a significant chunk of my effort to this area in the forthcoming years and believe that we can get recognition in world arena through this project. In 2016, I also noticed the positive impact of graduate level teaching to my research. Some of the final course projects in graduate level courses resulted in conference publications at prominent venues.

It will be a long quest to become a full-fledged research university. However, I noticed this year NU and my lab have matured considerably. I can wholeheartedly state that my research group now resembles to one which I would have at any tier-1 research university.

Our lab sent multiple students



abroad for graduate studies this year again. We rejoice this as a validation of the appeal of our students and research to the outside world. However, while we are sending our best and brightest, I cannot yet accept any of the multiple international students and scholars applying to my lab for positions. This limitation in internationalization is the soft underbelly of my research at NU.

RT: What research plans do you have for the coming 2017?

AV: I plan to continue with my research projects in 2017. I intend to get two qualified PhD students such that I can make longer term planning in research and increase the rigor of the projects. With the completion of the research and school extension buildings, I also hope to get proper research space for my laboratory. Currently, in School of Science and Technology, we use our laboratories dual-purpose, both for teaching and research. While this stimulates intellectual interaction to some extent, the labs also look like sardine cans. Only the toughest students can get a bench for their research.

RT: You are one of the few faculty

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members that have been with Nazarbayev University almost from the beginning. You have seen how NU research culture and community were growing up. What do you think has changed at NU in these 5 years? What was NU highest achievement in this period?

AV: Five years ago, NU was a startup university where improvisation was the word of the day. In the last five years, we have developed policies and procedures for all aspects of academic life, hired faculty members with a broad spectrum of backgrounds and research interests, graduated two cohorts of undergraduates, who successfully continue their careers in industry, business and academe. We can say that our biggest achievement so far is creating a top-notch teaching university with its unique culture of doing business, eccentric in Western norms but fully-functional.

RT: What do you think is Nazarbayev University's biggest long-term challenge?

AV: Our university is an integral part of President Nazarbayev's vision for transforming Kazakhstan to a highly competitive innovation based economy leveraging but not solely depending on natural resources. I fully understand and share this vision. To contribute to this goal, NU needs to become a research university. This requires significant resources for a long time horizon because tangible results in research take multiple generations of PhDs and are hard to pinpoint. In my opinion, continued support from political will in dire economic times to transform NU to a research university will the biggest challenge.

RT: Being a young, but in the same time experienced researcher yourself, what advices can you give to young researcher of NU?

AV: Being complacent is the worst enemy of success for a young researcher. They should always strive to achieve more and utilize their potential to the fullest. I, for one, think about my progress in research every night before sleeping (and actually sometimes stand up and send emails to my research assistants J.). I also recommend the same to young researchers of NU. They should not waste even a single day. By the way, complaining rarely if ever solves problems. If there's will there's a way.

RT: In this coming holiday time, what Christmas and New Year wishes do you have for our NU community?

AV: I wish all members of NU community a healthy, happy, peaceful and prosperous New Year. I look forward to working together to move Nazarbayev University and Kazakhstan forward in 2017.

RT: Thank you again for speaking with us and Research Team also wishes you success in all your beginnings in the coming year!

RESEARCH NEWS

International Grants Seminar at Nazarbayev University

On December 13, 2016, the Research Services Office organized the "International Grants" seminar. The seminar started with inspirational opening speeches by Provost **Prof. Ilesanmi Adesida** and **Vice-President for Innovation and Research Dr. Kanat Baigarin.**

The International Grants seminar consisted of 2 panel sessions. During the first session, the invited guests from international and national funding agencies gave presentations on their current and future funding opportunities and advice on what mistakes shall be avoided while applying for grants. The first panel session speakers have shared the following information with the audience:

1. Thomas Helm, director, Konrad Adenauer Foundation – link to the Foundation website

2. Kanat Iskakov, director, Science Fund – the presentation in Russian can be downloaded by clicking here.

3. Alau Akhmetzhan, department chair, Fostering Productive Innovation Project (joint project of the MES RoK and World Bank) – link to the FPIP website (will be fully updated in the beginning of 2017)

4. Abdilda Shamenov, president, Alliance of Technology Commercialization Professionals – presentation in Russian can be downloaded here.

5. Aigerim Abdrakhmanova, representative of the National Contact Point for Kazakhstan of the EU's Horizon 2020 Framework Program – useful links: no. 1, no. 2, no. 3.

During the second session, the NU faculty and researchers shared their experience with international grant management. We would like to thank our invited panelists, the NU faculty and researchers, for allocating their valuable time to share their insights about the international grant application and management with the audience:

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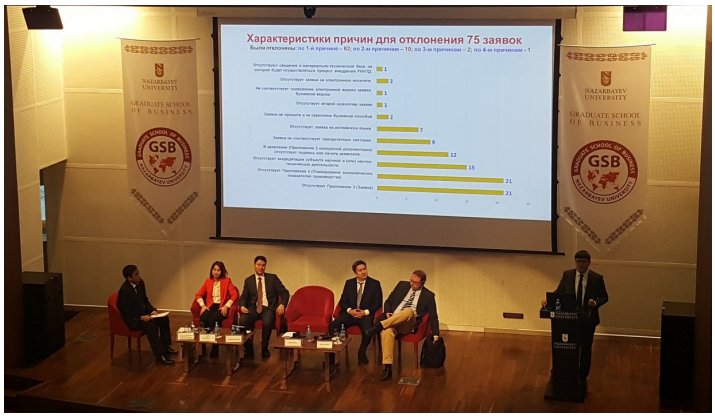

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1. Prof. Gultas Kurmanbay;
2. Dr. Vasileios Inglezakis;
3. Dr. Daniel Torrano;
4. Dr. Saltanat Janenova;
5. Dr. Kairat Kurakbayev;
6. Dr. Zeinekhan Kuzekova.

Both discussions were held in an interactive format, where the audience had a chance to discuss the procedures of the grant applications and ask any questions to the panelists.

This was the first seminar that was held in the open panel format. Thanks to the positive feedback from the event participants from Nazarbayev University, University Medical Center, Eurasian National University and the KAZGUU, the Research Services Office will continue organizing seminars in the format of an open panel discussion and invite more guests from international and national funding organizations to participate in our events and share the most updated information on the funding opportunities with the University community.

Research Updates from the Bioinspired Microelectronic Systems Group

By Prof. Alex James

The Bioinspired Microelectronic Systems Group was started in 2014 to enable cross disciplinary research in the areas of neural systems, electronics and data analytics. The thematic areas of focus are the following:

1. **Bioinspired Devices and Circuits;**
2. **Data analytics for Biomedical Applications;**
3. **Electronics and Circuits Education.**

The research group produced **15 student** research publications and 7 others in consideration for publication, and in the last three years have published several high quality publications (see publication list). The research group is the only internationally visible group in the area of circuits from central area region, and has gained attention in important forums such as ISCAS, and APCCAS.

List of Funded Projects

1. Nazarbayev Oxford Image Sensor with Enhanced Speed, Integration and Processing (NOISE-SIP); Collaborators - Alex James (PI), Nazarbayev University, Steven Collins, Bhaskar Choubay, Oxford University; 2015-2019 (Funded by NU)

ORAU SCORE-8.33;

2. Nazarbayev University Brain Computer Project (NU BCP); - Alex James (PI), Nazarbayev University; FabLabs, MIT,

ORAU SCORE-9;

3. Wireless Sensor Framework for Enhanced Characterization of Oil and Gas Reserves in Kazakhstan; Jong Kim (PI), Alex James (co-PI), Nazarbayev University; Bille Spencer, University of

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Illinois Urbana-Champaign, ORAU SCORE-7.33.

Facilities and Labs

Currently, we have one device characterisation facility with a probe station, semiconductor parametric analyser, wire bonder,

and PCB manufacturing support equipments. Further, we also managed to have TannerEDA tools for circuit design, and also

extensively use various open access simulation tools and libraries. Currently, we are waiting for Europractise membership to be

approved, and also have have agreed with eSilicon and Boise state for fabrication of ICs for year 2017. We expect that these

facilities will be moved to C4 building when it becomes ready.

Highly influential articles

Alex Pappachen James, Belur V. Dasarathy, Medical image fusion: A survey of the state of the art, **Information Fusion** , Volume 19, September 2014, Pages 4-19, ISSN 1566-2535 , http://dx.doi.org/10.1016/j.inffus.2013.12.002.(http://www.sciencedirect.com/science/article/pii/S1566253513001450)

Abstract: Medical image fusion is the process of registering and combining multiple images from single or multiple imaging modalities to improve the imaging quality and reduce randomness and redundancy in order to increase the clinical applicability of medical images for diagnosis and assessment of medical

Dr Alex James (Group Director)

Dr Amin Zollanvari (Group Co-director)

problems. Multi-modal medical image fusion algorithms and devices have shown notable achievements in improving clinical accuracy of decisions based on medical images. This review article provides a factual listing of methods and summarizes the broad scientific challenges faced in the field of medical image fusion. We characterize the medical image fusion research based on (1) the widely used image fusion methods, (2) imaging modalities, and (3) imaging of organs that are under study. This review concludes that even though there exists several open ended

technological and scientific challenges, the fusion of medical images has proved to be useful for advancing the clinical reliability of using medical imaging for medical diagnostics and analysis, and is a scientific discipline that has the potential to significantly grow in the coming years.

Field-weighted citation impact - 18.17 (ranked second in Kazakhstan), Citations: GScholar - 129, Scopus -74

To see the full Annual Report from the Bioinspired Microelectronic Systems Group, please click on this link.

NLA team to take 1st place in "BioMAH" conference in Rome

Researchers from the National Laboratory Astana successfully performed during «Biomaterials for Healthcare: Tissue and Genetic Engineering and the Role of Nanotechnology» (BioMAH) internationa l scientific conference in the heart of Italy, where scientists and biotechnologists from more than twenty-five countries around the world came together.

This conference covered various issues regarding innovative biomaterials and approaches for tissue regeneration. Its scope was to create a platform for exchanging the latest research results and sharing advanced methods between the scientific community and industries. Participants from various countries attended the conference, among them leading researchers in the biomaterials science field, manufacturers from orthopaedic surgery, neurosurgery, dentistry and pharmaceuticals, engineers, biologists, surgeons, physicians, dentists and other clinical personnel, closely connected with the application of biomaterials.

During the conference NLA's team from the Laboratory of Bioengineering and Regenerative Medicine presented the results of several research projects in the field of regenerative medicine and tissue bioengineering. The results of the scientific and technological project such as "Mesenchymal stem cells coated with synthetic bone-targeted polymer as a new approach for managing of osteoporotic bone fracture regeneration" presented by Julia Safarova, NLA junior researcher was highly appreciated by the

expert commission of BioMAH- 2016. The project won the first prize in "The best oral young researcher's presentation» nomination.

According to Sholpan Askarova, head of Laboratory of Bioengineering and Regenerative Medicine, NLA given that the osteoporosis is spread vastly around the world, and due to high level of disability of osteoporosis-related fractures, the scientific group of the laboratory has been developed a method of stimulating the regenerative osteogenesis, including the injection implantation combined a mesenchymal stem cells coated with synthetic bone-targeted polymer in the zone of osteoporotic bone fracture of the experimental animal model.

This methodology will improve the bone tissue regeneration and can serve as a basis for the development of the promising cell engineering approaches in the treatment of osteoporosis-related fractures, which will contribute to improving the quality of life and reduce the disability of patients in this category.

Research news from the Graduate School of Public Policy

GSPP Faculty Seminar Series

On October 28, 2016 a research presentation was delivered by Dr. Omer F. Baris, Assistant Professor of GSPP (Ph.D in Economics). This presentation gave a start to the seminar series of GSPP Faculty. Dr. Omer F. Baris presented his research on "Price Dispersion and Optimal Price Categories with Limited Memory Consumers" in collaboration with Dr. Levent Kutlu from Department of Economics, Georgia Institute of Technology, USA. Examining the effects of limited consumer memory on the pricing strategies of competing firms, it was shown that the observed price dispersion may be due to the consumers' inability to allocate their memory optimally. Optimal allocation of consumers' memory for more than two price categories reduces the likelihood of price dispersion and a single market price prevails.

Participation in Workshop

On November 23- 25 2016 GSPP Vice Dean for Academic Affairs Dr. Riccardo Pelizzo and Assistant Professor Dr. Saltanat Janenova participated in a workshop "Formation of State Apparatus: current status and prospects" organized by the Institute for Civil Servants Professional Development of the Academy of Public Administration under the President of the Republic of Kazakhstan. Dr. Riccardo Pelizzo delivered lecture on "Formation of State Apparatus: comparative perspective".

GRANTS & COMPETITIONS

New Funding Opportunities

Image Source: Dixie State University

We have identified new funding opportunities, all of which are suitable for the researchers based in Kazakhstan.

For you convenience, we also added funding opportunities listed in the previous issues of the Research Newsletter. The information on them can be found in the in the same Excel document.

For more information, please click here.

Joint Health Systems Research Initiative

Deadline: January 24, 2017

This scheme supports research based in low- and middle-income countries to improve health systems in those locations. The scheme is jointly supported by the Department for International Development (DFID), the Economic and Social Research Council (ESRC), the Medical Research Council (MRC) and the Wellcome Trust.

What we're looking for

We encourage applications from multidisciplinary teams that include biomedical scientists and social scientists. You can chose from two types of grant:

- **Research grants**: These grants are for small and larger-scale projects.
- **Foundation grants**: These grants support researchers who are conducting preliminary studies before designing research grant proposals. The grants are also for exploring possible innovations, under-researched areas and creative approaches. deliberately wide, we particularly welcome proposals for research into:
- chronic non-communicable diseases, including mental health
- reproductive, maternal and newborn health.

The link to the funding scheme

Partnership for Enhanced Engagement in Research (PEER) Cycle 6 Call for Pre-Proposals Announced

Deadline: January 13, 2017

The United States Agency for International Development (USAID) has joined with several U.S. Government (USG) supported agencies to support Partnerships for Enhanced Engagement in Research (PEER). Administered by the U.S. National Academy of Sciences (NAS), PEER is a competitive grants program that invites scientists in developing countries, partnered with USG-supported collaborators, to apply for funds to support research and capacity-building activities on topics with strong potential development impacts. This innovative program is designed to leverage the investments other USG-supported agencies have made in scientific research and training while supporting the initiatives of developing country scientists. Learn more...

PEER is currently accepting pre-proposals for Cycle 6 of the program. This year's focus areas include two topics open to applicants from a varied set of countries (Environmental Contaminants and Digital Development for Feed the Future), as well as eight topics open only to applicants from a specific country or region. As always, applicants must have a partner with active funding support from one of the U.S. Government-supported agencies participating in PEER.

The deadline for submission of pre-proposals for this cycle is **January 13, 2017**, and those whose applications are selected to advance to the full-proposal stage of the review process will be notified around February 28, 2017. Interested applicants are encouraged to review this year's focus areas, eligibility requirements, and application instructions through the "For Applicants" tab at the top of this page or through the links in the boxes below.

Informational Webinar

On November 9, PEER staff conducted a one-hour webinar to introduce participants to the PEER program for 2016/2017. During this webinar, they explained the program's eligibility requirements for applicants and partners, went over the application and review process, and described the various special focus areas for this year's cycle of the program. Guidance on how to find a partner was also provided, and the webinar presenters demonstrated how to use the program's online application site to submit a pre-proposal. The webinar slides are available online and the webinar audio can be listened to and downloaded here.

To see the full announcement, please click on this link.

The Asian Development Bank/Japan Scholarship Program offers 300 scholarships

The Asian Development Bank/Japan Scholarship Program offers about 300 postgraduate scholarships a year for studies in economics, management, science and technology, and other development-related fields at participating academic institutions.

What is offered

The scholarship provides full tuition fees, a monthly allowance for expenses, housing, books and instructional materials, medical insurance and travel. For scholars engaged in research, a special grant may be available for thesis preparation. In special circumstances, computer literacy, preparatory language and other similar courses may be covered under the scholarship.

Who is eligible

The program is open to those who have gained admission to an approved MA/PhD course at a participating academic institution. Candidates should be 35 years old or younger; in good health; with a bachelor's degree or its equivalent; and have a superior academic record. Upon completion of their study programs, scholars are expected to return to their home country to contribute to its economic and social development.

How to apply

Find out more about how to apply.

Horizon 2020: apply for European funds for business innovation

Businesses can apply for funds for business projects in areas from satellite technologies to cloud computing and personalised medicine. A European funding programme is to invest more than €300 millon across 11 initiatives launched this month. Business support is available for projects in a range of fields including cloud computing, Internet of Things, space and satellite technologies, the circular economy and personalised medicine. The funding is part of the EU's Horizon 2020 fund for researchers and business, which aims to ensure Europe produces world-class science and that barriers to innovation are removed.

Find out more about Horizon 2020.

UK Government underwrites European funding

The UK Government recently said that businesses and universities should continue to bid for EU funding while the UK remained a member of the EU and that it would underwrite payment of awards even when projects continued beyond UK membership. Find out more about the UK Government's guarantee on funding for participants in EU projects.

The funding opportunities

Eleven new Horizon 2020 funding calls are now open.

1. EU-Brazil joint call: €8 million is available for various topics covering cloud computing, Internet of Things and 5G networks. Closing date 14 March 2017. Find out more.
2. Earth observation: development of new applications and uses for Copernicus and Earth observation technologies. Closing date 1 March 2017. Find out more.
3. Competitiveness of European space sector: development of space technologies. Closing date 1 March 2017. Find out more.
4. Applications in satellite navigation: development of applications using Galileo and EGNOS. Closing date 1 March 2017. Find out more.
5. Better innovation support to SMEs. Closing date 28 March 2017. Find out more.
6. Industry 2020 in the circular economy: €74 million available for large-scale demonstration projects on the circular economy. Closing date 7 March 2017. Find out more.
7. Personalised medicine: in-silico trials for developing and assessing biomedical products. Closing date 14 March 2017. Find out more.
8. Personalised medicine: personalised computer models and in-silico systems for well-being. Closing date 14 March 2017. Find out more.
9. Personalised medicine: procurement of innovative solutions for uptake of standards for the exchange of digitalised healthcare records. Closing date 14 March 2017. Find out more.
10. Greening the economy: €223 million available for multiple projects around climate services. Closing date 7 March 2017. Find out more.
11. Demonstrating innovative nature-based solutions in cities. Closing date 7 March 2017. Find out more.

Experiment! – In search of bold research ideas

- Area of research: science and engineering, life sciences
- type of funding: research projects
- up to 100.000 Euro (may be flexibly utilized for all personnel and non-personnel costs)
- up to 18 months
- scientists in Germany with PhD or superior academic qualification (for Kazakhstani institution applicants—main applicant shall be based in Germany)
- short application; anonymized selection procedure
- additional benefits: funding for communication of science and research

Aim

The exploration of exceptionally daring new ideas is not yet really subject of the established research agenda in Germany, as far as facing challenges and transforming common wisdom are concerned. This often requires to establish counterintuitive hypotheses as well as unconventional methodologies or technologies, and to focus on entirely new research approaches. The Volkswagen Foundation's funding initiative 'Experiment!' tries to pave the way for fundamentally new research topics even though the outcome is indefinite. A concept failure as well as unexpected findings is an acceptable result.

Scope of Funding

The initiative addresses researchers in science and engineering as well as in the life sciences including behavioral biology and experimental psychology, who want to put a potentially transformative research idea to the test. They are given the opportunity to demonstrate preliminary evidence for a concept's potential during an exploratory phase, which is limited to 18 months and up to 100,000 Euro.

One year after receipt of a grant the project development will be reconsidered at the Foundation's 'Forum Experiment!'.

The application scheme is fast: The decision is taken within four months upon submission of a short proposal. An anonymized peer-review ensures that only prospective breakthrough ideas will count.

Further details on the conditions and the application procedure can be found under Information for Applicants (pdf). Please also read the answers to Frequently Asked Questions (FAQs). Applications must be filed electronically via the electronic application system.

Background

The funding initiative 'Experiment!' was started in November 2012. The initiative is exceptionally well received with approx. 500 applications for the envisaged 15 grants per call. In total, 67 projects have been funded: 13 out of 704 in 2013, 19 out of 630 in 2014, 17 out of 425 in 2015, and 18 out of 544 applications in 2016.

Collaborative Awards in Science

Deadline: April 17, 2017

Collaborative Awards promote the development of new ideas and speed the pace of discovery. We fund teams of researchers, consisting of independent research groups, to work together on the most important scientific problems that can only be solved through collaborative efforts.

Who can apply

Collaborative Awards are for teams of researchers bringing together the relevant expertise and experience to address the most important scientific problems.

Each applicant must be essential to the proposed collaborative research and have:

- Proven research expertise and experience in their field.
- An academic or research post (or equivalent).
- A salary for the duration of the award period. If this is not in place, your employing organisation must provide a guarantee of salary support for the duration of the award.

Members of the team must have proven experience in collaborative research and consist of independent research groups.

Team size will depend on the proposed research, but should generally have more than two applicants, and no more than seven. Teams may be based in the same or in different organisations, and must bring different expertise or disciplines to the research question.

Applicants should usually be based at eligible organisations in the UK, Republic of Ireland, or low- or middle-income countries. However, we can make exceptions for projects that need specific expertise or resources provided by team members based in other countries.

What we're looking for

Your proposal should describe a significant piece of work that addresses the most important questions, in an area relevant to the mission of the Wellcome Trust.

You should be able to demonstrate why the scientific problem you are tackling can only be solved through an integrated, collaborative team effort.

We encourage interdisciplinary research collaborations, although they are not essential. We also encourage applications that propose interdisciplinary research across our Science, Humanities and Social Science and Innovations teams.

The link to the funding scheme

Collaborative Awards in Humanities and Social Science

Deadline: January 16, 2017

Collaborative Awards promote the development of new ideas and bring disciplines together to speed the pace of discovery. This scheme funds teams who are tackling major health-related questions in the humanities and social sciences that require a collaborative approach.

Who can apply

You can apply for a Collaborative Award if you have a team of two to six principal applicants. Each applicant should have a good track record in their area of research, relative to their career stage.

What we're looking for

We're looking for teams with a track record of working together to tackle research questions that can only be approached collaboratively. Teams can come from the same discipline or from a combination of disciplines. They can be from the same university department or a number of organisations (anywhere in the world).

We encourage applications that combine humanities and social science research with biomedical science research and/or product development and applied research. Please contact us if you're not sure which area to apply to.

Important factors when we evaluate your application are:

- the environment in which you do your research
- the support your host organisation provides.

A Collaborative Award is normally in the range of £1 million to £1.5 million, for up to five years. You should ask for a level and duration of funding that's justifiable for your career stage, research experience and the proposed research programme.

The link to the funding scheme

USEFUL INFORMATION

Nazarbayev University's New Publications

Google Alerts is one of Google's tools to keep track of trends, interesting topics, or anything really new that appears on the web. We would like to introduce you the recent alerts *(since November 1, 2016 – December 31, 2016)* on the published papers by our colleagues so you can keep track on NU research successes

For more information, please **click here.**

Promoting interdisciplinary research: PURE research management solution

Nazarbayev University has purchased the Pure research management solution to promote interdisciplinary research, facilitate and ease any research-related procedures: starting from providing information on any research works (articles, books, book chapters, working papers, conference proceedings, etc.) to internal grant and project management.

To help us ease the research management procedures for you, please fill out all research-related data in your profiles.

On **October 21**, the NU faculty and researchers should have received their details to log in to the Pure system from the **"purehosted"** sender. If you have problems logging in to the system, please email **Aiman Temirova** at aiman.temirova@nu.edu.kz.

Aiman Temirova has already visited all Schools and NLA. If your research unit would like to get a training on how to use Pure, please an email to Aiman Temirova.

The step-by-step guideline on how to enter data and update your profiles can be downloaded by following **this link.**

We appreciate your cooperation!

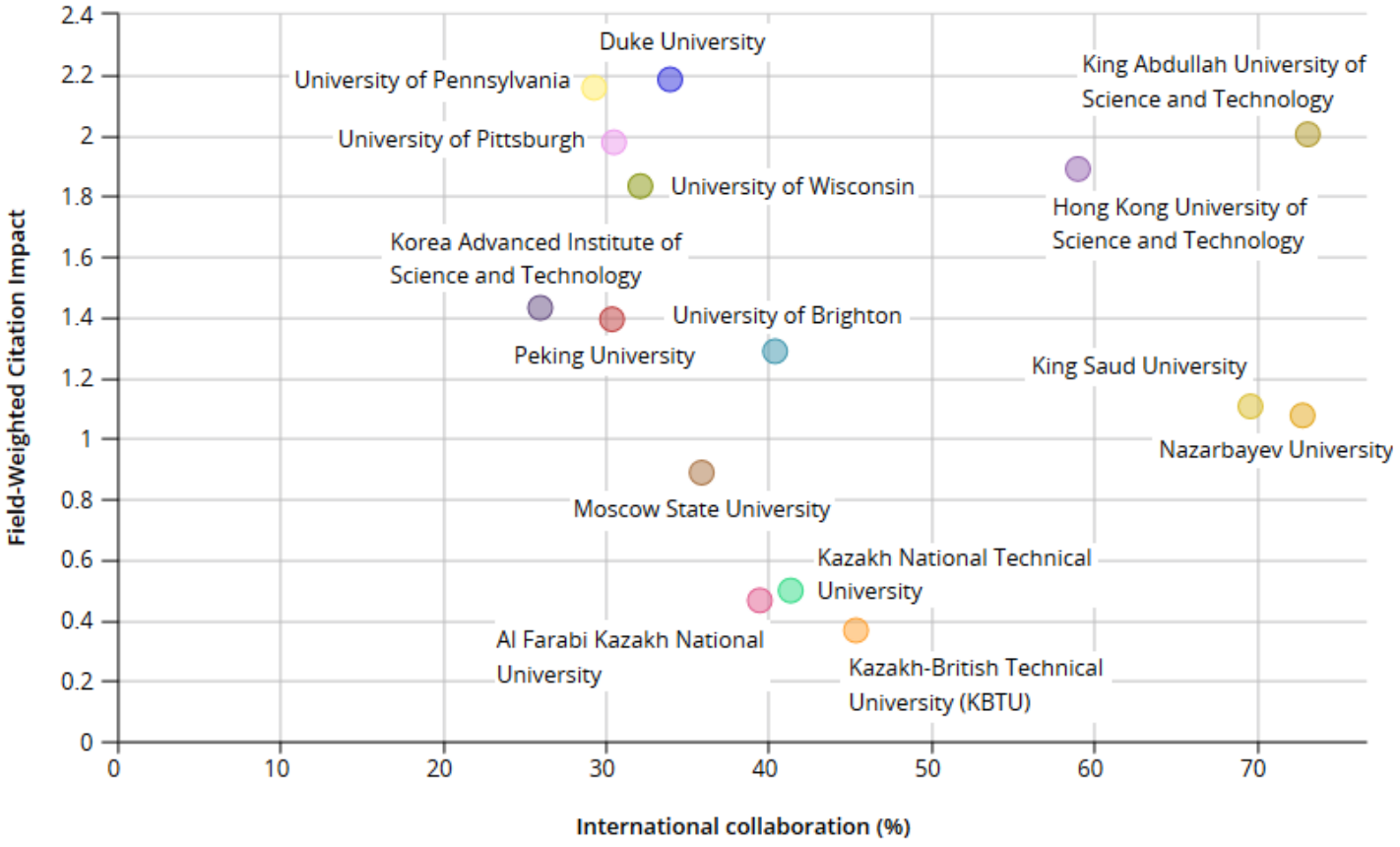
Kind Regards,
Research Services Office

Research Performance Evaluation using SciVal

In this month's issue, we are delighted to share an updated presentation on the research performance of Nazarbayev University using the SciVal research solution.

Since its inception in 2011, Nazarbayev University faculty and researchers have released **918** peer-reviewed publications indexed by Scopus, and have been cited **2,233** times (source: Scopus, December 27, 2016). The approximate number of citations per the peer-reviewed publication is 2.4.
In order to provide you with more comprehensive information on the NU's research performance, we prepared a presentation using SciVal research evaluation platform that is based on Scopus.

If you have any questions regarding the provided information, please contact **Aiman Temirova** (email address: aiman.temirova@nu.edu.kz), Manager for Research Monitoring and Assessment, Research Services Office.



Benchmarking the research performance of Nazarbayev University, national and international institutions using Field-Weighted Citation Index and International Collaboration share of peer-reviewed publications from 2011 to 27 December, 2016.

11 steps to structuring a science paper editors will take seriously — *A seasoned editor gives advice to get your work published in an international journal*

In this monthly series, Dr. Angel Borja draws on his extensive background as an author, reviewer and editor to give advice on preparing the manuscript (author's view), the evaluation process (reviewer's view) and what there is to hate or love in a paper (editor's view). This article is the second in the series. The first article was: "Six things to do before writing your manuscript."

Dr. Angel Borja is Head of Projects at AZTI-Tecnalia, a research center in the Basque Country in Spain specializing in marine research and food technologies. Formerly he was also Head of the Department of Oceanography and Head of the Marine Management Area. His main topic of investigation is marine ecology, and has published more than 270 contributions, from which 150 are in over 40 peer-reviewed journals, through his long career of 32 years of research. During this time he has investigated in multiple topics and ecosystem components, having an ample and multidisciplinary view of marine research.

Following are the steps to organizing your manuscript. If you are interested in this article, you may find the full information by following this link.

Steps to organizing your manuscript

1. **Prepare the figures and tables**
2. **Write the Methods.**
3. Write up the **Results**.
4. Write the **Discussion**. Finalize the Results and Discussion before writing the introduction. This is because, if the discussion is insufficient, how can you objectively demonstrate the scientific significance of your work in the introduction?
5. Write a clear **Conclusion**.
6. Write a compelling **introduction**.
7. Write the **Abstract**.
8. Compose a concise and descriptive **Title**.
9. Select **Keywords** for indexing.
10. Write the **Acknowledgements**.
11. Write up the **References**.

Length of the manuscript

Please look at your journal's Guide for Authors, but an ideal length for a manuscript is 25 to 40 pages, double spaced, including essential data only. Here are some general guidelines:

- **Title:** Short and informative
- **Abstract:** 1 paragraph (<250 words)
- **Introduction:** 1.5-2 pages
- **Methods:** 2-3 pages
- **Results:** 6-8 pages
- **Discussion:** 4-6 pages
- **Conclusion:** 1 paragraph
- **Figures:** 6-8 (one per page)
- **Tables:** 1-3 (one per page)
- **References:** 20-50 papers (2-4 pages)

CONGRATULATIONS!

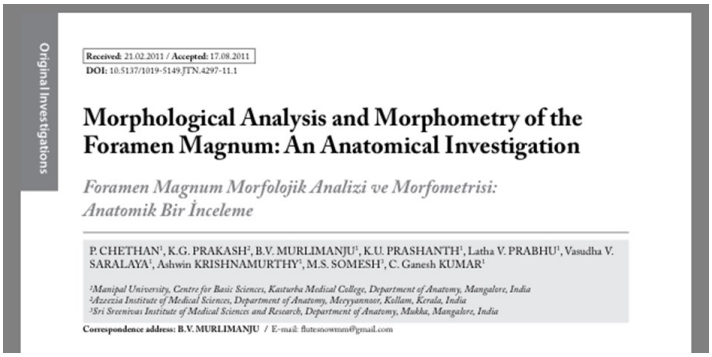
Nuriya Akhmetova & Shingis Zhumagali, SST students, publish ***three papers in international peer-reviewed journals***

We would like to congratulate the graduates of SST-2016, **Ms. Nuriya Akhmetova and Mr. Shingis Zhumagali** (and their supervisors **Prof. A. Mahboob and Prof. R.J. O'Reilly** from SST) with publication of their student research results in THREE PAPERS in 2016 (international journals: Chemical Data Collections and Quantum Chemistry). A great job indeed.

Currently, Nuriya and Shingis are working in the research projects of Prof. Zhumabay Bakenov funded by the Government of Kazakhstan, and, according to Prof. Bakenov, continuing doing a really good work.

Let us wish them the further success in their carrier and all the best!

NUSOM Professor's paper is cited by the ***Bergman's Comprehensive Encyclopedia of Human Anatomic Variation***



Original Investigations

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Morphological Analysis and Morphometry of the Foramen Magnum: An Anatomical Investigation

Foramen Magnum Morfolojik Analizi ve Morfometrisi: Anatomik Bir İnceleme

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One of the articles of Dr Chethan Purushothama, Assistant Professor, NUSOM, entitled **Morphological Analysis and Morphometry of the Foramen Magnum: An Anatomical Investigation,** which was published in Turkish Neurosurgery 2012, Vol: 22, No: 4, 416-419, has been cited in **Bergman's Comprehensive Encyclopedia of Human Anatomic Variation.**

Bergman's Comprehensive Encyclopedia of Human Anatomic Variation is one the most reputable encyclopedias in Medicine in the world. It is the installment of the classic human anatomic reference launched by Dr. Ronald Bergman.

Please click on the link to see the page.

We would like to congratulate Dr. Purushothama and wish him all the best in his research endeavors!

*Congratulations to **Ms. Aliya Mukanova**, PhD student in the School of Engineering!*

We would like to congratulate the School of Engineering PhD student Ms. Aliya Mukanova on the STFC Batteries Early Career Award (UK)!

Our best wishes of further success and great PhD work!

The STFC Global Challenge Network in Batteries and Electrochemical Energy Devices promotes collaboration between world-class users and developers of large-scale research facilities and provides a forum to draw together researchers from a range of disciplines. The STFC Early Career Award is designed to enable mobility of researchers between UK and international institutions, offering grants of up to £3,500 for travel and subsistence.

Congratulations to the NU's Interdisciplinary Research Group!

Congratulations to the Interdisciplinary Research Group led by Dr. Jay Sagin, School of Engineering, on wining the 1st Space Hackathon in Kazakhstan!

The interdisciplinary group of researchers works on several Central Asian projects with applications of Remote Sensing and GIS. More information on the research activities of the Group can be found on the following websites:

1. The Burabay-Geo Project:

http://www.burabay-geo.kz

2. The Geo-Data Central Asia Project:

http://www.geodatacasia.org/

For more information about the Interdisciplinary group's activities, please contact Dr. Jay Sagin.

Congratulations to the School of Humanities and Social Sciences!

We would like to congratulate the School of Humanities and Social Sciences on launching the Anthropology lab on December 2, 2016!

To celebrate this memorable day, SHSS has kindly invited the Research Services Office to the grant opening, where they showed:

- A tour around the lab;
- Prof. Reed Coil presenting Skulls;
- Artifacts-ceramics, stone - for display;
- Prof. Paula Dupuy demonstrating microscope set up with samples to examine.

We will share more detailed information on the Anthropology Lab in the next issue of the Research Newsletter.

Congratulations to Dr. Theodoros Tsiftsis, School of Engineering!

We would like to congratulate Dr. Theodoros Tsiftsis, School of Engineering, on being invited to India through the very famous program GIAN to give lectures from 12.12.2016 to 17.12.2016.

The Global Initiative of Academic Networks (GIAN) in Higher Education (http://www.gian.iitkgp.ac.in/) is funded by the government of India and is aimed at tapping the talent pool of scientists and entrepreneurs internationally to encourage their engagement with the institutes of Higher Education in India so as to augment the country's existing academic resources, accelerate the pace of quality reform and elevate India's scientific and technological capacity to global excellence.

Dr. Tsiftsis taught the course entitled "Advanced Wireless Communication Technologies: A PHY-layer perspective" in the research area of Electronics, Electrical, Information & Communication Technology.

The course was covered by the media.

ANNOUNCEMENTS

3rd International Conference of Public Policy

28th-30th June, 2017 | Singapore

Panel P15

Realities of Public Policy and Management Reforms in Central Asia

Following the success of ICPP1 (GRENOBLE 2013) and ICPP2 (MILAN 2015), the International Public Policy Association (IPPA) is pleased to invite you to the 3rd INTERNATIONAL CONFERENCE ON PUBLIC POLICY which will take place at the Lee Kuan Yew School of Public Policy (NUS), SINGAPORE from Wednesday 28th June to Friday 30th June 2017.

Call for Papers

The panel of the NU Graduate School of Public Policy invites abstracts for papers addressing issues broadly in the spheres of civil service and public management reforms in Central Asian countries. The panel aims to bring together international and regional scholars from Central Asian countries analysing civil service and public administration reforms, including labor and welfare relations, migration, education, economic and budgetary policies. Regardless of their theoretical and/or analytical point of departure, papers are expected to draw significantly on original empirical research. It is expected that papers will analyze and discuss design, implementation and evaluation of various policies from public policy and/or public management perspective.

Our panel welcomes contributions analysing single and multi-country settings, employing both quantitative and qualitative design and research methods. Papers will be accepted which feature (but are not limited to):

- Theoretical overviews of the public policy/public management literature.

(Continued on page 26)

(Continued from page 25)

- Interesting case studies in Central Asian countries.
- Longitudinal research in public policy/ public management reforms in any of the Central Asian countries.
- Comparative research on Central Asian countries.

Both early career and established scholars are encouraged to apply. A selection of the accepted papers will be considered for potential publication in a special issue of the international peer-reviewed journal. Abstracts of papers should not exceed 500 words and should be submitted by 15 January 2017.

Chairs:

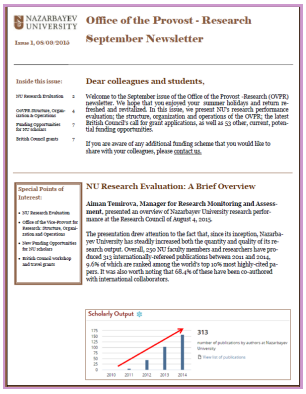
Dr. Saltanat Janenova (Graduate School of Public Policy, Nazarbayev University, Astana, Kazakhstan) E-mail: saltanat.janenova@nu.edu.kz

Dr. Colin Knox (Graduate School of Public Policy, Nazarbayev University, Astana, Kazakhstan)

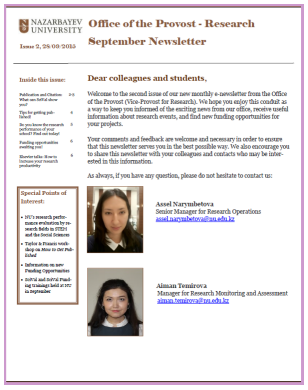
E-mail: colin.knox@nu.edu.kz

NEWSLETTER'S PREVIOUS ISSUES

Take a look back through the previous issues of our Newsletter!



Issue #1



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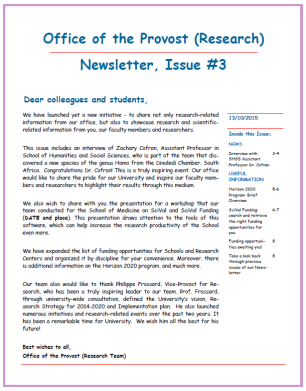

Issue #3

Issue #4

Issue #5

Issue #6

Issue #7

Issue #8

Issue #9

Issue #10

Issue #11

Issue #12

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