

Report on the dissemination  
activities implemented  
within the 2<sup>nd</sup> year of the project



## New and Innovative Courses for Precision



# NATIONAL UNIVERSITY OF UZBEKISTAN NAMED AFTER MIRZO ULUGBEK

**Dr. ABDUMANAP NASIROV**

**Joint Project: Capacity Building in  
the Field of Higher Education  
ERASMUS+ 2018**

Co-funded by the  
Erasmus+ Programme  
of the European Union





# Schedule of dissemination events (2019-2020)

No	Dissemination event	Dissemination method	Implementation date
1	Coordination meeting with Uzbek partner universities, TUIT, Tashkent, Uzbekistan	Event-based	November, 2019
2	Project news on the NUU website, Tashkent, Uzbekistan	Web-based	Regularly
3	Coordination meeting with Uzbek partner universities, TUIT, Tashkent, Uzbekistan	Event-based, web-based	March, 2020
4	Meetings with EU and UZ partners	Event-based, web-based	Every two months via video conferencing
5	Project Awareness building seminar	Event-based, web-based	Regularly
6	Erasmus+ Week, Tashkent, Uzbekistan	Event-based	May, 2020
7	International GIS in Central Asia Conference – GISCA 2020. Online Conference, Tashkent, Uzbekistan	Event-based, web-based	June, 2020
8	Erasmus+ Information day, Tashkent, Uzbekistan	Event-based	October, 2020
9	Faculty meeting, NUU	Event-based	Monthly
10	Information about project related events, achievements, materials etc. on the web of:-Erasmus+ NICOPA project ( <a href="https://nicopa.eu">https://nicopa.eu</a> );-NUU ( <a href="https://nuu.uz">https://nuu.uz</a> );-Social media and channels ( <a href="http://facebook.com">http://facebook.com</a> , <a href="http://telegram.org">http://telegram.org</a> );-mass media ( <a href="http://kun.uz">http://kun.uz</a> , <a href="http://uza.uz">http://uza.uz</a> , <a href="http://uzbekistan24.uz">http://uzbekistan24.uz</a> , <a href="http://daryo.uz">http://daryo.uz</a> )	Web-based	Regularly

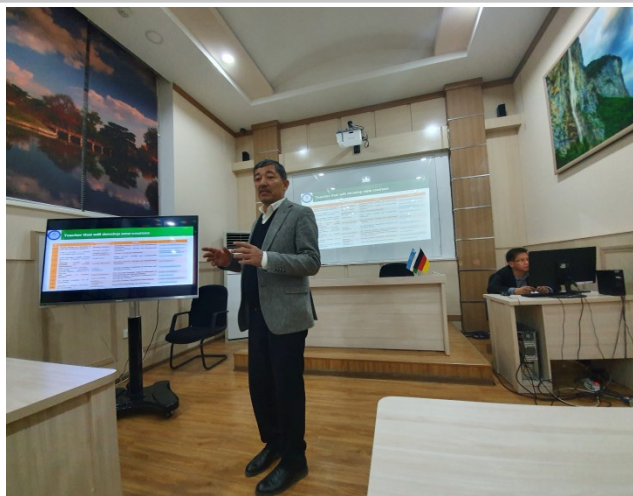


# Regional Coordination Meeting

## Regional Coordination Meeting with Uzbekistan Organizations 20 November 2019 Tashkent University of Information Technologies

### Objectives:

1. NICOPA: Milestones and Deliverables. The second and third project years.
2. Discussing the current state of the project plan and the first-year work progress at Uzbekistan universities.





# Regional Coordination Meeting

## Regional Coordination Meeting with Uzbekistan Organizations 4 March 2020 Tashkent University of Information Technologies

### Objectives:

1. Status of the updating of existing and development of new courses
2. Preparation for acceptance / installation of new equipment
3. Activities to disseminate information and ensure sustainability of project results and work plan for 2020





## Coordination meetings with partners

#	Meeting topic	Date	Participated
1	Online coordination meeting with the partner universities	07.04.2020	All partners
2	NICOPA equipment discussion	04.05.2020	UZ partners
3	Online coordination meeting with the project consortium (Discussion of development teaching materials)	02.06.2020	All partners with external reviewer
5	NICoPA meeting for 18M report	26.06.2020	All partners





# International Conference GISCA 2020

## ‘GIS IN CENTRAL ASIA’ CONFERENCE – GISCA 2020, “Applied Geoinformatics for Sustainable Development”, Online, June 1-2, 2020

### PRESS RELEASE

‘GIS IN CENTRAL ASIA’ CONFERENCE – GISCA 2020  
“Applied Geoinformatics for Sustainable Development”

Online, June 1-2, 2020

### GISCA Conferences

Geographic Information Science and Technologies have evolved into a key instrument for managing our societies, environments and infrastructures, as well as individuals' daily lives. Continued success of this development depends on cooperation across disciplines, open information policies and a highly educated workforce.

The GISCA series of conferences aims at building a Central Asian network of GIS professionals supporting the sustained development of this region into an environmentally friendly, secure and prosperous society. It serves as a platform for communication, collaboration and learning in Geographic Information Science, GIS and related sciences and technologies. GISCA was launched by the Austria-Central Asia Centre for GIScience in 2005.

The main objectives of this English language conference are to bring together geospatially oriented academics, researchers and practitioners in the Central Asian countries and encourage international cooperation and knowledge exchange in GIS education.

### GISCA 2020

In 2020, GISCA is focused on the theme “Applied Geoinformatics for Sustainable Development”. Geographic Information Science as a conceptual foundation, Geoinformatics as the methodology and GIS as software technologies are powerful instruments for linking information across different sources by location. This is exactly what is needed to successfully manage our environments and natural resources, our economies and ultimately our societies.

GISCA 2020 is being organized by the Austria-Central Asia Centre for GIScience (ACA\*GIScience) jointly with the Erasmus+ DSIinGIS project led by the Alba Regia Technical Faculty, Óbuda University, Hungary and the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME).

GISCA 2020 is supported by Trimble International, GeoTwo and the Austrian Academy of Sciences. The conference originally was planned to be held in Tashkent, Uzbekistan, but due to current circumstances has been scheduled entirely online as a virtual conference on June 1-2, 2020.

The GISCA conference series and its publications are managed by ACA\*GIScience supported by Eurasia-Pacific Uninet and the Austrian Academy of Sciences' Commission for GIScience.

### Key topics of the GISCA 2020

- Key themes (additional themes and sessions are welcome) of the conference are:
- GIS for regional Sustainable development



## CERTIFICATE

of attendance

given to

**Ilkhomjon ABDULLAEV**

confirming participation in the ‘GIS in Central Asia’ Conference –  
GISCA 2020 “Applied Geoinformatics for Sustainable Development”.

1-2 June 2020, International Online Conference



Prof. Dr. Josef Strobl  
Austrian Academy of Sciences  
GIScience Commission

Prof. Dr. Uktam Umurzakov  
Rector, Tashkent Institute of Irrigation and  
Agricultural Mechanization Engineers (TIAME)

Dr. Földváry Lóránt  
Erasmus+ DSIinGIS Project Coordinator  
Óbuda University

- Development of Spatial Data Infrastructure
- GIS for management in the field of environmental protection
- GIS for the prevention and elimination of emergency situations
- GIS for water resources management
- GIS in agriculture
- New trends and technologies in geodesy, cadastre and land management
- Professional and farther education in the field of geoinformatics
- GIS in Hydrotechnical Construction and Melioration
- GIS in Mechanization and Automatization of Agriculture and Water Resources.

### Participants

Participants: Erasmus+ DSIinGIS and NICOPA Project Partners (staff and students), BSc, MSc and PhD students in GIS related specialities, GIS related organisations and companies.

### Organizers

- Austria-Central Asia Centre for GIScience (ACA\*GIScience);
- Erasmus+ DSIinGIS project;
- Universität Salzburg, Austria;
- Alba Regia Technical Faculty, Óbuda University, Hungary;
- Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME).

### Contacts

Contact to TIAME – Local organizers (Uzbekistan)

Conference secretary: **Mr. Ilhom Abdurahmanov**, [gisca2020@aca-gis-science.org](mailto:gisca2020@aca-gis-science.org)

Tel.: +998712371909, Fax: +998712373879

Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME)

Kory Niyoziy Str. 39, Tashkent 100000, UZBEKISTAN

Contact to ACA-GIScience (Kyrgyzstan):

**Dr. Akylbek Chymyrov**, [akylbek.chymyrov@aca-gis-science.org](mailto:akylbek.chymyrov@aca-gis-science.org)

Tel.: +996-312-545602, Fax: +996-312-545136

Kyrgyz State University of Construction, Transport and Architecture (KSUCTA)

Maldybaev Str. 34 “b”, Bishkek 720020, Kyrgyzstan

Contact to GISCA coordinator (Austria):

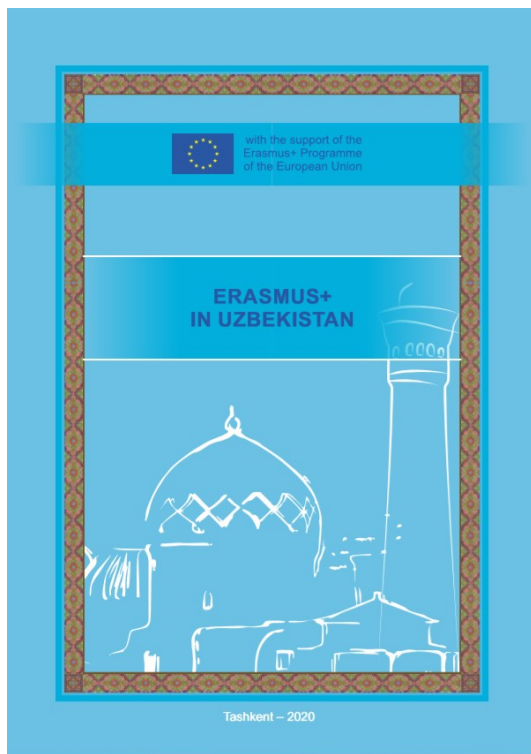
**Academician Prof. Josef Strobl**, [Josef.Strobl@sbg.ac.at](mailto:Josef.Strobl@sbg.ac.at)

Department of Geoinformatics, University of Salzburg &  
GIScience Commission of the Austrian Academy of Sciences



# NICOPA in the proceedings “Erasmus+ in Uzbekistan”

- Paper with the title “Project Management, Curriculum and Achievements of the NICoPA project” in the proceedings “Erasmus+ in Uzbekistan”: [http://www.erasmusplus.uz/images/shared/file/ERASMUS+\\_IN\\_UZB\\_2020\\_print.pdf](http://www.erasmusplus.uz/images/shared/file/ERASMUS+_IN_UZB_2020_print.pdf)



Then Anvar Nizamov, module leader in Team University, spoke on “Training and development as a part of Human resource management”, and Anvar Shirinov gave a lecture on “Recent changes in labor legislation in Uzbekistan”.

Topics were discussed by speakers and participants of the seminar.

The seminar was organized at a high level and was widely disseminated through social networks and the media (<https://buxdu.uz/index.php/en/activity-en/international-cooperations/active-projects/2757-talent-project>, <https://youtu.be/n7IW3bRuvVA>).

In conclusion, the project results will serve to satisfy public and civil organizations with qualified HR managers soon. In this regard, local organizations are trying to prepare their HR managers according to the program formulated by the TALENT project team.

## Project Management, Curriculum and Achievements of the NICoPA project

*Arnold Sterenharz<sup>1</sup>, Elena Engorn<sup>1</sup>  
Abdumanap Nosirov<sup>2</sup>, Komil Tashev<sup>2</sup>, Temurbek Kuchkorov<sup>2</sup>, Ilhom  
Abdurahmanov<sup>3</sup>*

<sup>1</sup> Technische Universität Berlin (TUB), Berlin, Germany,

<sup>2</sup> Tashkent University of Information Technologies (TUIT), Tashkent,  
Uzbekistan,

<sup>3</sup> National University of Uzbekistan (NUU), Tashkent, Uzbekistan,

<sup>4</sup> Tashkent Institute of Irrigation and Agricultural Mechanization Engineers,  
Tashkent, Uzbekistan

\*Corresponding author: [ilhom.isakovich@gmail.com](mailto:ilhom.isakovich@gmail.com)

**Abstract:** The aim of the Erasmus+ project “NICoPA: New and Innovative Course for Precision Agriculture” is to modernize curricula in precision agriculture using new technologies such as Geographic Information System (GIS), Big Data and Remote Sensing. Project is addressed to improve the quality of higher education and enhance its relevance for the labor market and society, the level of competences and skills in HEIs by developing new and innovative education programs, support the modernization and internationalization of the HE in precision agriculture in the targeted Universities in Kazakhstan, Uzbekistan and Turkmenistan through innovation of two cycles curricula. The information about the project management, curriculum and output activities done within the project NICoPA are given in this paper.

Based on the obtained skills of NICoPA project and experience of EU universities, the following new BSc and MSc programs have been established and they have started admission of students from the 2020/2021 academic year:

- Geoinformation systems and technologies, MSc Program, Tashkent university of information technologies named after Muhammad al-Khwarizmi;

- Innovative technologies in Remote Sensing of Land Resources, BSc Program, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers.

Prospective BSc and MSc students will study on modern curriculum which is developed in collaboration with highly experienced European partner universities (Technical University of Berlin, Agricultural University Plovdiv, Czech University of Life Sciences Prague). Specialization modules that are Geoinformation systems, Remote sensing technologies and applications, SENTINEL-1-2-3 imagery processing, Computer vision, Web technologies for geo-portal, geo-services and geo-analytical systems, Precision agriculture basics, Artificial intelligence in geoinformation systems, WebGIS, Digital Photogrammetry, 3D Modelling in GIS, Space Geodesy, Geospatial Data Visualization, Spatial Data Analysis, Decoding Spatial Images and other subjects are included in the curriculum.

According to the statistics of the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan: 19 applicants with a bachelor degree submitted their documents to continue the study in MSc program in Geoinformation systems and technologies, and 3 of them have been accepted to study in this program at TUIT; more than 300 applicants submitted their documents to study in BSc program in Innovative technologies in Remote Sensing of Land Resources, and 29 of them have been accepted to study in this program at TIAME. It is planned opening the new PAL (Precision Agriculture Lab) laboratory and VCR (Virtual Classroom) for BSc and MSc students to study modules and conduct their researches effectively using modern hardware and software tools.

To complete BSc program in Innovative technologies in Remote Sensing of Land Resources students should score 240 ECTS, and to get MSc degree in Geoinformation systems and technologies, they should score 120 ECTS at all. Credits are divided into the three modules that are general (21%), major (48%) and elective (31%) subjects in MSc program.

## References

1. Erasmus+ CBHE Project “DSinGIS: Doctoral Studies in Geoinformation Sciences” (<http://www.dsingis.eu/>), <http://www.dsingis.eu/>.

2. Erasmus+ CBHE Project “Environmental Protection In Central Asia (EPICA): Disaster Risk Management With Spatial Methods”, <http://www.epica.eu/>.

3. Erasmus+ CBHE Project “NICoPA: New and Innovative courses for Precision Agriculture”, <http://www.nicopa.eu/>.



# News about Advisory monitoring meeting by NEO

<https://telegra.ph/Erasmus-project-New-and-Innovative-Courses-for-Precision-Agriculture-NICOPA-2018-2021-10-09>

## Erasmus+ project New and Innovative Courses for Precision Agriculture (NICOPA) (2018-2021)

October 09, 2020

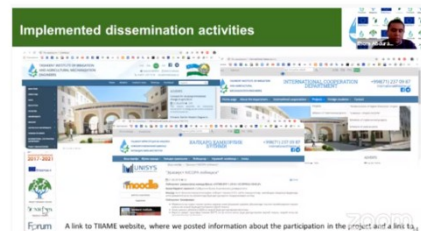
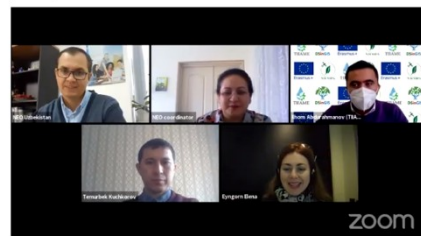
The online field monitoring meeting with the project teams of Erasmus+ CBHE NICOPA took place on 9 October 2020. The regional project involving universities of Germany, Bulgaria, Czech Republic, Kazakhstan, Turkmenistan and Uzbekistan is aimed on modernization and internationalisation of BA/MSc studies in precision agriculture using new technologies including besides machines Geographic Information System (GIS), big data and remote sensing in targeted universities in Central Asian countries through innovative two cycles curricula in line with the Bologna and principles, market demand and best practice..

The project teams of National University of Uzbekistan, Tashkent University of Information Technologies, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers have already developed majority foreseen courses in precision agriculture together with EU partners. The project website <https://www.nicopa.eu/> provides detailed information about the project activities. .

The information about the project is also available in the [Erasmus+ Project Results Platform](#).

novative-Courses-for-Precision-Agriculture-NICOPA-2018-2021-10-09

The information about the project is also available in the [Erasmus+ Project Results Platform](#).







# Advisory Monitoring with NEO UZ, October 9. 2020



Co-funded by the  
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ERASMUS+ Capacity Building in the Field of Higher Education (CBHE)

## NICOPA PROJECT

«New and Innovative Courses for Precision Agriculture» (NICOPA)  
597985-EPP-1-2018-1-KZ-EPPKA2-CBHE-JP

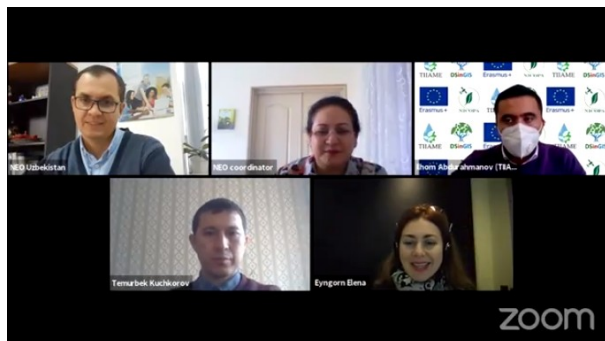
Advisory monitoring meeting (Online)

9 October 2020 at 14.30 (Tashkent time)

Online communication details: <https://us02web.zoom.us/j/81960206603>

## MEETING AGENDA

14:30-14:40	Opening speech	<b>Raima Shirinova</b> , Vice-rector for International Relations of NUU
14:40-14:50	Objectives of the Advisory Monitoring visit	<b>Aziza Abdurakhmanova</b> , NEO coordinator <b>Kudratkhon Bakhadirov</b> , NEO expert
14:50-15:20	Activities performed of NICOPA project in TILAME	<b>Ilhom Abdurahmanov</b> , Institutional coordinator of NICOPA project
15:20-15:50	Activities performed of NICOPA project in TUIT	<b>Temurbek Kuchkorov</b> , Institutional coordinator of NICOPA project
15:50-16:20	Activities performed of NICOPA project in NUU and, in general, in Uzbekistan	<b>Abdumanap Nasirov</b> , National coordinator of NICOPA project
16:20-16:35	On the progress of work on the NICOPA project in partner universities of Uzbekistan	<b>Anastasiya Tatarintseva</b> – Project Manager, EXOLAUNCH GmbH, Berlin, Germany, <b>Sara Kitaibekova</b> – Project coordinator, S. Seifullin KATU, Kazakhstan
16:35-17:00	Discussion	All participants
17:00-17:10	Conclusions and preliminary recommendations of the monitoring	<b>Aziza Abdurakhmanova</b> , NEO coordinator <b>Kudratkhon Bakhadirov</b> , NEO expert



Co-funded by the  
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of the European Union



ERASMUS+ Capacity Building in the Field of Higher Education (CBHE)

## NICOPA PROJECT

«New and Innovative Courses for Precision Agriculture» (NICOPA)  
597985-EPP-1-2018-1-KZ-EPPKA2-CBHE-JP

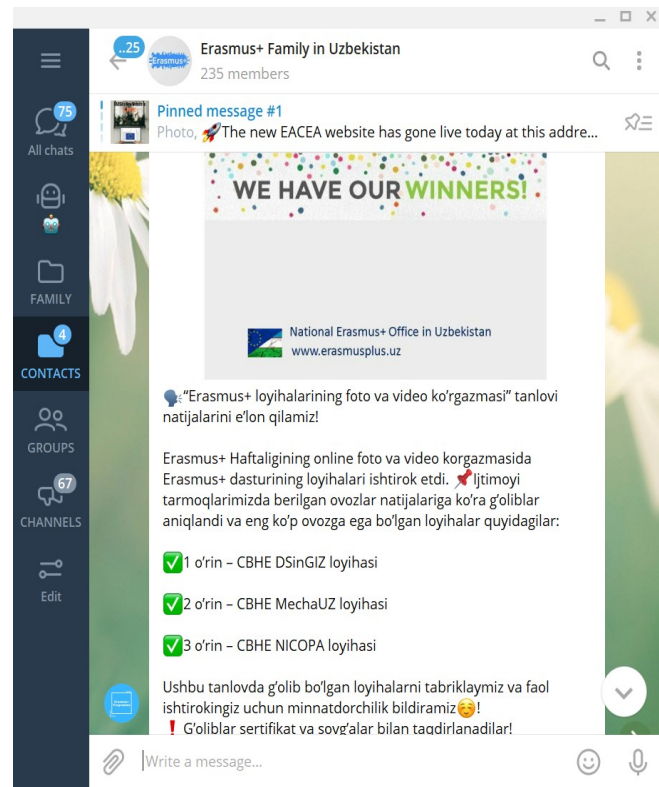
Advisory monitoring meeting (Online)  
9 October 2020 at 14.30 (Tashkent time)

## List of participants

Organisation	Name, surname, position, email of authorized representatives
National University of Uzbekistan	<b>Raima Shirinova</b> , Vice-rector for International Relations of NUU <a href="mailto:r.shirinova@nuu.uz">r.shirinova@nuu.uz</a> <b>Abdumanap Nasirov</b> , Associate professor, National coordinator, <a href="mailto:anasirov1962@mail.ru">anasirov1962@mail.ru</a> <b>Ilkhomjon Abdullaev</b> , Senior Lecturer, Local Manager, <a href="mailto:ilkhomjon.abdullaev@gmail.com">ilkhomjon.abdullaev@gmail.com</a> <b>Pavel Parchinskiy</b> , Associate professor, project member, <a href="mailto:pavelphys@mail.ru">pavelphys@mail.ru</a> <b>Azizjon Ruziev</b> , Senior Lecturer, project member, <a href="mailto:azizjon.ruziev84@gmail.com">azizjon.ruziev84@gmail.com</a> <b>Andrey Nebeay</b> , Blogger of the project, <a href="mailto:nebeay-andrey@yandex.ru">nebeay-andrey@yandex.ru</a>
Tashkent University of Information Technologies	<b>Temurbek Kuchkorov</b> , Associate professor, Local coordinator <a href="mailto:timanet4u@gmail.com">timanet4u@gmail.com</a> <b>Zamira Allamuratova</b> , Lecturer, project member, <a href="mailto:zamira74@mail.ru">zamira74@mail.ru</a> <b>Mexridin Raximov</b> , Associate professor, project member, <a href="mailto:raximov022@gmail.com">raximov022@gmail.com</a> <b>Nozima Atadjanova</b> , Teacher assistant, project member, <a href="mailto:nozimatadjanova@gmail.com">nozimatadjanova@gmail.com</a>
Tashkent Institute of Irrigation and Agricultural Mechanization Engineers	<b>Ilhom Abdurahmanov</b> , Researcher, Local Coordinator, <a href="mailto:ilhom.isakovich@gmail.com">ilhom.isakovich@gmail.com</a> <b>Mamanbek Reimov</b> , Researcher, Local Manager, <a href="mailto:maman1990@mail.ru">maman1990@mail.ru</a> <b>Zokhid Mamatkulov</b> , Researcher, project member, <a href="mailto:zokhid2095@gmail.com">zokhid2095@gmail.com</a> <b>Ilhomjon Aslanov</b> , Assistant Professor, project member, <a href="mailto:ilhomaslanov@gmail.com">ilhomaslanov@gmail.com</a>
EXOLAUNCH GmbH	<b>Anastasiya Tatarintseva</b> , Project Manager <a href="mailto:anastasiya@exolaunch.com">anastasiya@exolaunch.com</a>
S. Seifullin KATU, Kazakhstan	<b>Sara Kitaibekova</b> , Project coordinator, <a href="mailto:saracrazbek@mail.ru">saracrazbek@mail.ru</a>
National Erasmus+ Office (NEO) in Uzbekistan	<b>Aziza Abdurakhmanova</b> , NEO coordinator, <a href="mailto:coordinator@erasmusplus.uz">coordinator@erasmusplus.uz</a> <b>Kudratkhon Bakhadirov</b> , NEO expert, <a href="mailto:expert@erasmusplus.uz">expert@erasmusplus.uz</a> <b>Gulshoda Karibaeva</b> , NEO project manager, <a href="mailto:nec@erasmusplus.uz">nec@erasmusplus.uz</a>



# Erasmus+ Info Week, October 12-17, 2020





# Regional Cluster Meeting Capacity Building in Higher Education Project impact in Central Asia

19-20 November 2020



## Regional Cluster Meeting

- Capacity Building in Higher Education
  - Project impact in Central Asia

On-line event coordinated by NEO Uzbekistan

Day 1 – 19 November 2020

08:15 CET	On-line connection of participants
08:35-09:05	<p>Chairman (<u>Anila Trashani</u>) - Head of Sector Erasmus+: Higher Education – International Capacity Building (CBHE), Education <u>Audiovisual</u> and Culture Executive Agency)</p> <p><b>Welcome by the Ministers of Education and Science</b></p> <ul style="list-style-type: none"><li>Uzbekistan</li><li>Kazakhstan</li><li>Kyrgyzstan</li><li>Tajikistan</li><li>Turkmenistan</li><li>Delegation of the European Union in Tashkent, Uzbekistan (10 minutes)</li></ul>
09:05-09:15	Impact of Capacity Building in the field of Higher Education in Central Asia – presentation PP

With the support of the Erasmus+ Programme of the European Union

Regional Cluster Meeting

Capacity Building in Higher Education

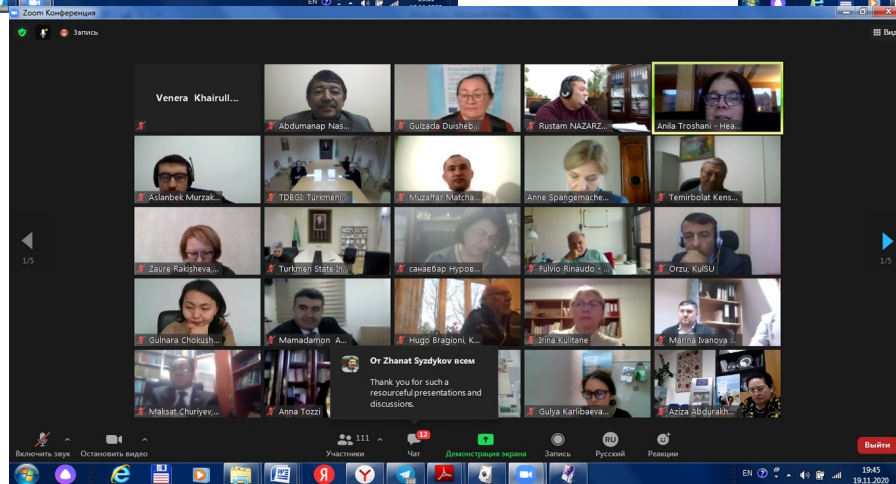
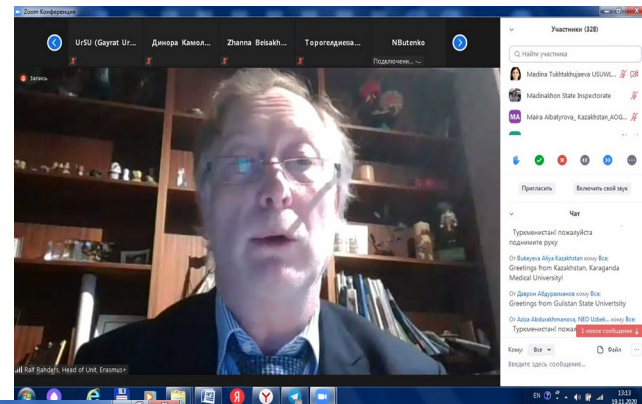
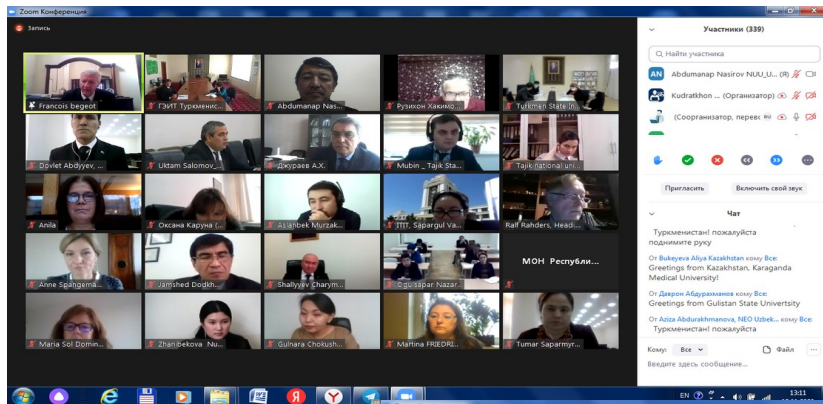
**The Status of Erasmus+ Projects in Uzbekistan amid Covid-19 Pandemic**

**Speaker: Aziza Abdurakhmanova**





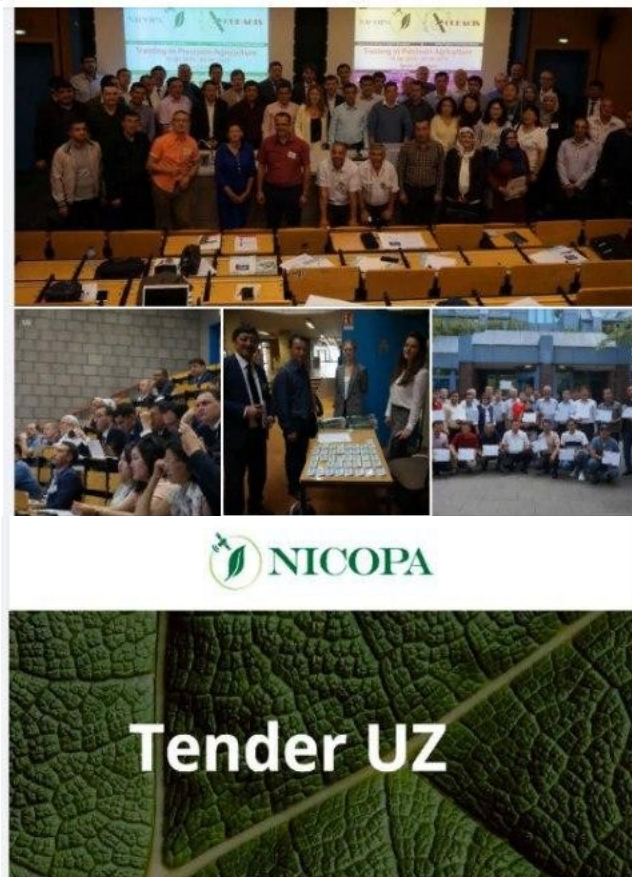
# Regional Cluster Meeting Capacity Building in Higher Education Project impact in Central Asia







# Dissemination (internet links)





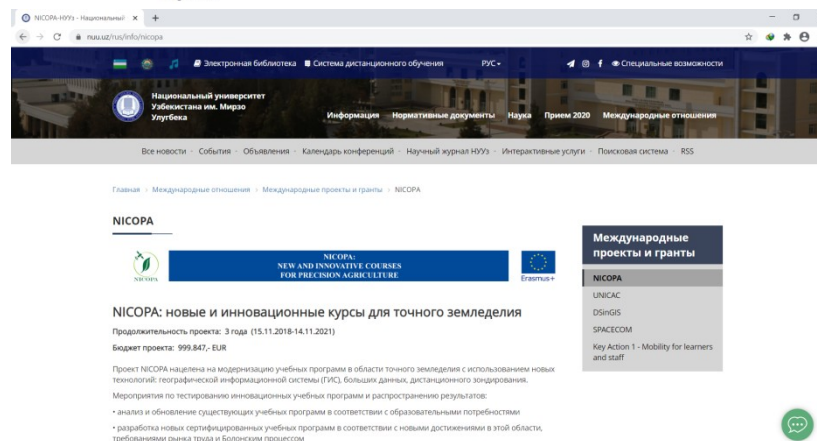
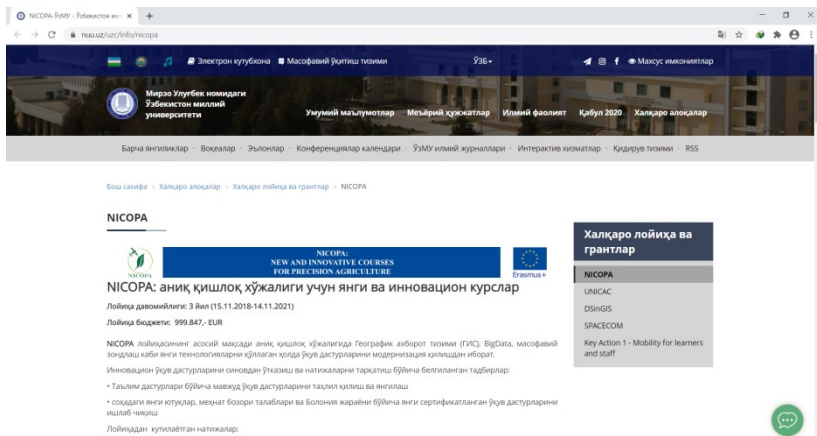
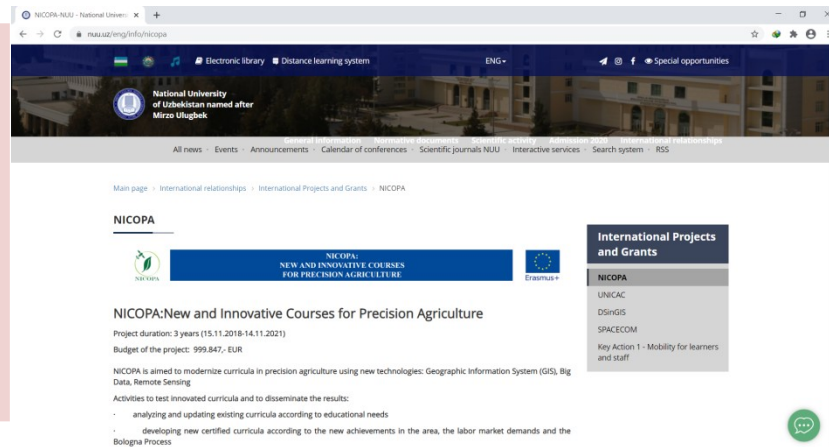
# Information about the project

Information about the project is available on the University website (in English, Uzbek and Russian)

<https://nuu.uz/eng/info/nicopa>

<https://nuu.uz/uzc/info/nicopa>

<https://nuu.uz/rus/info/nicopa>

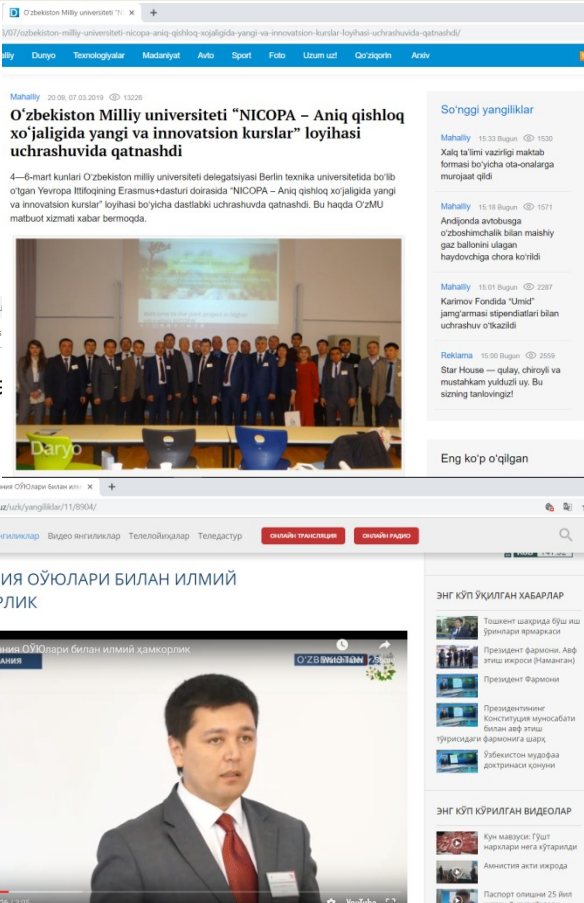
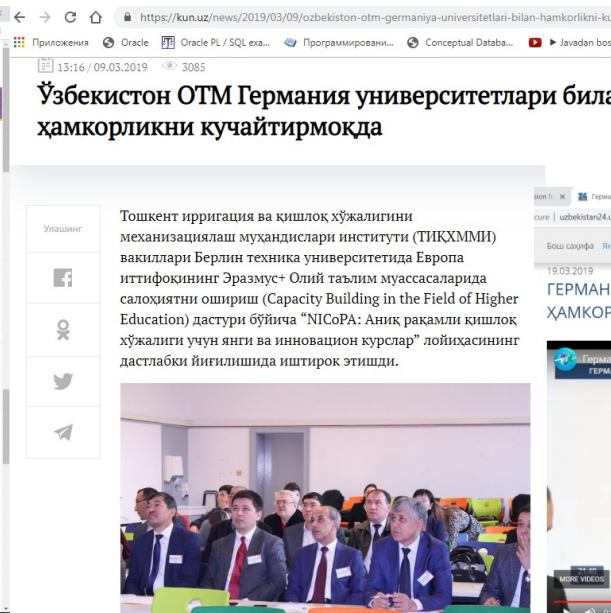
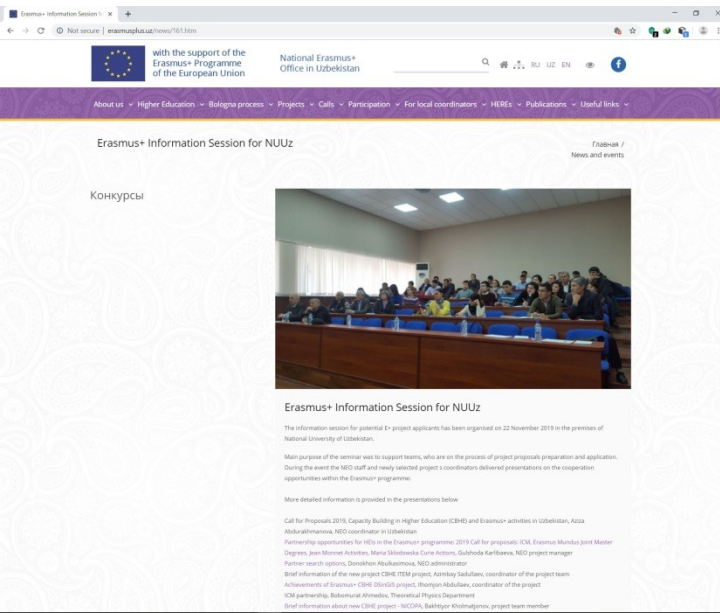


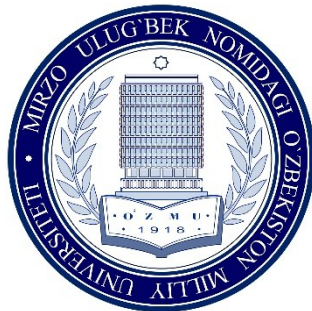
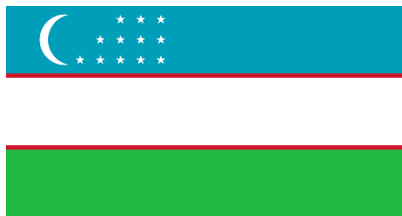




# Dissemination (internet links)

1. <http://www.erasmusplus.uz/news/161.htm>
2. <http://www.erasmusplus.uz/Information-about-the-projects/Erasmus-plus/4-call/index.htm>
3. <http://tiame.uz/oz/article/deuch>
4. <http://uzbekistan24.uz/uzk/yanqiliklar/11/8904/>
5. <https://kun.uz/news/2019/03/09/uzbekiston-otm-germaniya-universitetlari-bilan-hamkorlikni-kuchaytirmoqda>
6. <https://daryo.uz/2019/03/07/uzbekiston-milliy-universiteti-nicopa-aniq-qishloq-xojaligida-yangi-va-innovatsion-kurslar-loyihasi-uchrashuvida-qatnashdi/>
7. <http://uza.uz/oz/society/berlinda-zmu-mutakassislari-ishtirokida-isti-bolli-loyi-a-a-06-03-2019>





# Thank you for you attention!



Co-funded by the  
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**Dr. ABDUMANAP NASIROV**  
**National coordinator of the NICOPA**  
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