Periodical Report
24 Months of project implementation

# New and Innovative Courses for Precision Agriculture

TIIAME

NICOPA

## TASHKENT INSTITUTE OF IRRIGATION AND AGRICULTURAL MECHANIZATION ENGINEERS (TIIAME)

### FACULTIES: LAND MANAGEMENT, HYDROTECHNICAL CONSTUCTION, MECHANIZATION OF AGRICULTURE

MR. ILHOM ABDURAHMANOV

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

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

# 1. Project activities – from May 2020 till November 2020

**The university has implemented the following activities (+ short description of their deliverables) from 16.05.2020 till 15.11.2020 according to the work plan:**

**WP2:**

• 2.1 Prepare a set of new core curricula and transferable modules inclusive innovative teaching/ learning facilities; develop syllabi; adopt new curricula and modules on institutional /accredit on national level

*The module "Geoinformation systems and technologies" have been accepted at national level and allowed to publish (license uploaded to the Google Drive).*

2.2 Prepare a set of documentation for PAL and VCR; purchase the equipment incl. software; install the equipment

*Documentation of PASO have been approved (uploaded to the Google Drive). A list of equipment has been approved. Tender announcement have been posted, and winner company selected. Agreement on EQ purchase have been signed.*

# 1.1. Project activities – from May 2020 till November 2020

**WP4:** 4.1. Project DISS& EXP /communication plan using a Set of Promotional Materials; Dissemination Events, Joint WEB based platform, “NICOPA+” Agreement

*Schedule of dissemination events for 2021 year have been developed (uploaded to the Google Drive). 4 Dissemination events have been organized from 16.05.2020 till 15.11.2020 (press releases uploaded to the google drive). The total number of participants of the dissemination events is more than 478.*

**WP5:** 5.1 Management of the project including Project management online, daily project administration and coordination

*1 staff member involved in Management and Coordination who is the Local Project coordinator (Ilhom Abdurahmanov). 1 internal reports (18M) prepared and submitted.*

5.2 Coordination meetings

*2 coordination events (meetings) have been organized so far.*

*2 internal management teleconferences have been organized so far.*

# 1.2. Positive changes/benefits at TIIAME (so far)

- A new curricula “5311200 – Innovative technologies in Remote Sensing of Land Resources” has been established and new/updated modules has been included to this new curricula.
- 3 master classes organized and 14 teachers have been retrained.
- The module “Geoinformation systems and technologies” have been accepted at national level and allowed to publish (license uploaded to the Google Drive).
- Teachers have been retrained, they improved their skills on PAg.

# 1.3. Problems / difficulties…

- Because of Covid-19, equipment purchase/installation and trainings at the EU partner universities have been postponed.

# 2.1. Updated and New Courses

| Table 2.1.1. UPDATED COURSES | | | | | | |
|---|---|---|---|---|---|---|
| **Course №** | **Title of the course and in which program it is taught (Bachelor, Master)** | **Its volume (in ECTS)** | **Number of students participating in the course** | **Name new elements in the course and estimate the percentage they represent in relation to the preexisting course** | **Link to the course on the university page** | **Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started** |
| **Course 1** | Geoinformation systems and technologies | 8 | 91 | Spatial Data Visualization; GIS software; Application of GIS; Fundamentals of Digital Cartography; 20% | https://moodle.tiiame.uz/enrol/index.php?id=2146 This is a Moodle platform of TIIAME. Teachers and students have a personal login and password. | - Accredited on August 14, 2020.<br>- Pilot course started on September 3, 2020. |
| **Course 2** | Remote Sensing Applications (methodical instruction) | 4 | 44 | There was no methodical instruction in the pre-existing course. | https://moodle.tiiame.uz/enrol/index.php?id=237 This is a Moodle platform of TIIAME. Teachers and students have a personal login and password. | - Accredited on August 14, 2020.<br>- Pilot course started on September 3, 2020. |

**∑(Total number of updated courses) = 2 (two)** **∑(Total number of ECTS) = 12 (twelve)**

# 2.1. Updated and New Courses

TIIAME

| Table 2.2.2.NEW COURSES | | | | | |
|---|---|---|---|---|---|
| **Course №** | **Title of the course and in which program it is taught (Bachelor, Master)** | **Its volume (in ECTS hours for TM in case no ECTS)** | **Number of students participating in the course** | **Link to the course on the university page** | **Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started** |
| **Course 1** | Precision Agriculture | 5 | - | | …in the process |
| **Course 2** | Modern geodetic equipment | 5 | 224 | https://moodle.tiiame.uz/enrol/index.php?id=1277 This is Moodle platform of TIIAME. Teachers and students have a personal login and password. | - Accredited on August 14, 2020.<br>- Pilot course started on September 3, 2020. |
| **Course 3** | GIS in using Hydrotechnical Structure | 5 | 58 | …in the process | - Accredited on August 14, 2020.<br>- Pilot course started on September 3, 2020. |
| **Course 4** | GIS in Hydrotechnical Construction | 6 | 38 | …in the process | - Accredited on August 14, 2020.<br>- Pilot course started on September 3, 2020. |

**∑(Total number of new courses) = 4 (four)** **∑(Total number of ECTS) = 21 (twenty one)**

# 3. Quality assurance (Plan)

**MINISTRY OF HIGHER AND SECONDARY SPECIALIZED EDUCATION OF THE REPUBLIC OF UZBEKISTAN**

**TASHKENT INSTITUTE OF IRRIGATION AND AGRICULTURAL MECHANIZATION ENGINEERS**

«AGREED»
Vice Rector for Academic Affairs of TIIAME
B.Mirzaev
"14" January 2019

«APPROVED»
Rector of TIIAME
U.Umurzakov
"14" January 2019

**QUALITY ASSURANCE PLAN OF TIIAME**

**for the Erasmus+ CBHE Project**

**"NICoPA: New and Innovative courses for Precision Agriculture"**

**for 2018-2021 years**

| № | Activity | Deadlines | Responsible people |
|---|---|---|---|
| 1. | Establishment of Quality group | January, 2019 | B.Mirzaev, I.Abdurahmanov |
| 2. | Conducting a workshop on ESG & ECTS User's Guide documents | February, 2019 | B.Mirzaev, I.Abdurahmanov |
| 3. | Conducting a need analysis of university regarding curricula update/development | March, 2019 | B.Mirzaev, I.Abdurahmanov |
| 4. | Defining requirements of the labor market | April, 2019 | Sh.Narbaev |
| 5. | Formulating competences of specialists that will be valuable in the next 3-5 years | April, 2019 | Sh.Narbaev, M.Reimov |
| 6. | Conducting of surveys of target groups in order to learn about their opinion regarding curricula/courses/modules/modernization/development | April, 2019 | Sh.Narbaev, M.Reimov, A.Khamraliev |
| 7. | Development of indicators for quality assessment of implementation of each new/ modernized curricula or curricula package in the target field | August, 2019 | I.Abdurahmanov, Sh.Narbaev |
| 8. | Creating a list of 1-3 potential peer reviewers (organizations or persons) | September, 2019 | I.Abdurahmanov |
| 9. | Conducting negotiations with peer reviewers of when to send them materials for a peer review | September, 2019 | I.Abdurahmanov |
| 10. | Creating a list of curricula/courses/modules that should be modernized | October, 2019 | Sh.Narbaev, M.Reimov |
| 11. | Creating a list of new curricula/courses/modules that should be developed | October, 2019 | Sh.Narbaev, M.Reimov |
| 12. | Creating a plan of modernization and development of curricula/courses/modules | October, 2019 | B.Mirzaev, I.Abdurahmanov |
| 13. | Ensuring of communication with the labor market, potential employers and other organizations during implementation of the tasks | regularly | I.Abdurahmanov, Sh.Narbaev, M.Reimov |
| 14. | Regular conducting of meetings, negotiations regarding the tasks | regularly | B.Mirzaev, I.Abdurahmanov |
| 15. | Studying of teaching material received from the European consortium partners; summarizing, studying and disseminating of the information received on the trainings in the European universities | October, 2019 | Z.Mamatkulov I.Aslanov, Kh.Khasanov, U.Mukhtorov |
| 16. | Studying of national/international educational standards, as well as recommendation of Bologna process | November, 2019 | B.Mirzaev, I.Abdurahmanov |
| 17. | Studying of the latest (up to 5 years old) results of scientific research of foreign scientists | November, 2019 – March, 2020 | Z.Mamatkulov I.Aslanov, Kh.Khasanov, U.Mukhtorov |
| 18. | Implementation of modernization and development of curricula/courses/modules with participation of teaching staff that took part in the trainings in European universities | September, 2020 | B.Mirzaev, I.Abdurahmanov, Sh.Narbaev, M.Reimov |
| 19. | Feedback questionnaires from students/academics/ stakeholders | November, 2020 | M.Reimov, A.Khamraliev |
| 20. | Organization and implementation of peer review | December, 2020 | I.Abdurahmanov, M.Reimov |
| 21. | Providing self monitoring reports | in each 6 months | I.Abdurahmanov, M.Reimov |
| 22. | Providing presentation based on the report | in each 6 months | I.Abdurahmanov, M.Reimov |

**Coordinator of the project at TIIAME** **I.Abdurahmanov**

# 3. Quality assurance (indicators)

TIIAME

Which quality indicators have you chosen for the peer review template?

1. Balance of student's workload: theory, practical work (not less than 50%), individual work, internship in a company, testing system
2. Application of ECTS by developing new modules/courses/curricula or modernizing the old ones
3. Usage of information about the latest (up to 5 years old) results of scientific research of foreign scientists in teaching materials
4. Usage of the university online educational platform during the educational process
5. Ability of students to influence the educational content or process. For instance, ability of students to choose a topic of reporting or practical works, to attend elective modules/courses.
6. Correspondence to the national norms (standards) of education
7. Consideration of a new module by the university council of experts with the participation of potential employers (chair meeting, meeting of educational council)

# 3. Quality assurance (Peer-review)

Report on the peer review procedure: which new modules have you chosen for the peer review?

- *Modern geodetic equipment*
- *Geoinformation system in using Hydrotechnical Structure*
- *Geoinformation system in Hydrotechnical Construction*

Who are/will be peer reviewers?

- *Peer reviewers are the Heads of Departments, Docents of the HEIs of Uzbekistan, employers, specialists of the related organizations.*

When did you conduct peer reviews? If you haven't done it yet: When will you send the peer review questionnaire and get a feedback from peer reviewers?

- *Peer reviews were conducted in 2020.*

# 3. Quality assurance (Peer-review information)

- 6 peer reviews have been conducted for the 3 courses developed/updated within the Erasmus+ NICoPA Project in 2020.
- Experts reviewed the course Geoinformation systems and technologies:
  - *K.Rakhmonov, Head of Department "State Cadasters", TIIAME;*
  - *D.Almatov, Specialist of Scientific production enterprise "Cartography".*
- Experts reviewed the course Modern geodetic equipment:
  - *A.Bobojonov, Head of Department "Land Use", TIIAME;*
  - *O.Allanazarov, Docent of the Department "Surveying and geodesy", Tashkent State Technical University.*
- Experts reviewed the courses "Geoinformation system in using Hydrotechnical Structure" and "Geoinformation system in Hydrotechnical Construction":
  - *Z.Irisboev, Deputy Chief of State Inspection "Statewatermanagementcontrol";*
  - *A.Inamov, Docent of the Department "Geodesy and Geoinformatics", TIIAME.*

# 3. Quality assurance (Peer-review, main conclusions)

In order to meet the needs of the organizations in the field of precision agriculture, the authors-developers have modernized existing curricula and modules using new GIS (geographic information systems) and technologies, remote sensing of the earth, big-data, analyzed and updated 6 educational programs in compliance with the principles of the Bologna Process.

The developed new and innovative courses are focused on the formation of basic professional competencies among future specialists in the field of precision agriculture, the use of modern intelligent technologies in the field of Geographic Information System (GIS), Big data, Earth remote sensing, etc., the study of a combination of scientific and technological progress in agriculture and water resources with the progressive development of the natural environment and the greening of production processes in order to ensure balanced dynamic development and reduce or prevent anthropogenic pressure on agriculture, the ability to work with scientific and technical information, use domestic and foreign experience in professional activities with a clear focus on the future, which is manifested in the possibility of building one's professional career and education, taking into account the success in personal and professional activity that meets the employers' requirements.

# 4. Laboratories and equipment

**Titles of laboratory works that are planned to be conducted at PAL and VCR and which equipment is planned to be used in these works (specify modules, in which these laboratory works are planned to be conducted and at which faculties)**

- Laboratory works in the course **"Precision Agriculture"** (at the Faculty of Mechanization of Agriculture and the Faculty of Land Management):
  - Sensing Technology on Precision Agriculture
    - ✓ *IMETOS® IMT280, ECH874EXT, SEN-SDI12, SE1200S;*
  - Data collection and Analysis on Precision Agriculture
    - ✓ *IMETOS® IMT280, ECH874EXT, SEN-SDI12, IM5041D, SE1200S;*
  - Sustainable Intensification in Crop Farming and Yield Monitoring Technology
    - ✓ *PI54-D/5, MD510SM;*
  - Smart Farming Technology Types, Equipment for Variable Rate Application
    - ✓ *ECH874EXT, TNS107, SE1200S.*

  Moreover, all equipment of VCR will be used during the practical works of this course.

# 4. Laboratories and equipment

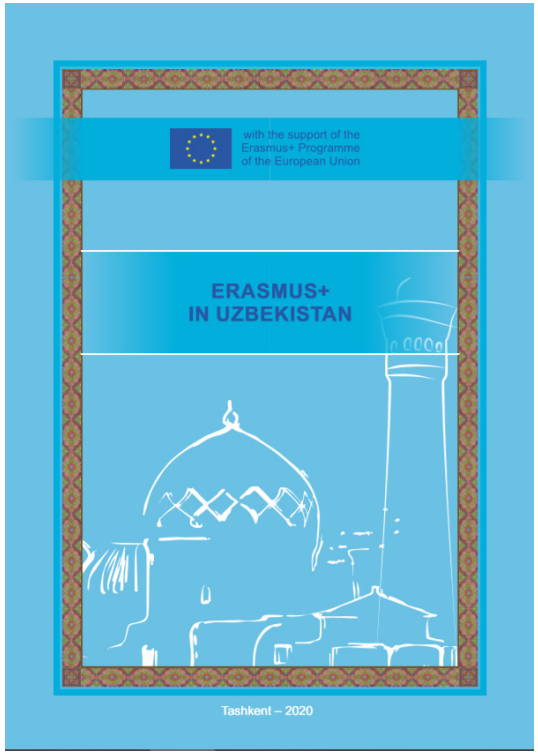
- All equipment of VCR will be used during the following practical works of the course **"Geoinformation systems and technologies"** (at the Faculty of Land Management)**:**
  - Working with ArcMap software
  - Supervised digitization and vectorization
  - Geographical and attribute information
  - Development of map configuration and preparation for publication
  - Display data in Geographic Information System.
- The following equipment of VCR will be used during the laboratory and practical works of the courses **"Geoinformation system in using Hydrotechnical Structure"** and **"Geoinformation system in Hydrotechnical Construction" (**at the Faculty of Hydrotechnical Construction):

*- Personal Computer All in One;*
*- Color MFD A3;*
*- Smart Board;*
*- Mobile Workstation;*
*- Monochrome MFD A4;*
*- Projector.*

All the equipment of VCR will be used for processing the data obtained during the practical and laboratory works of the courses **"Modern Geodetic Equipment"** and **"Remote Sensing Applications"** (at the Faculty of Land Management)**.**

# 5.1. Dissemination (16.05.2020 till 15.11.2020)

- 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 (page#119)




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/n7IW3bRwvVA).

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.

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

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***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 TIIAME. 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.

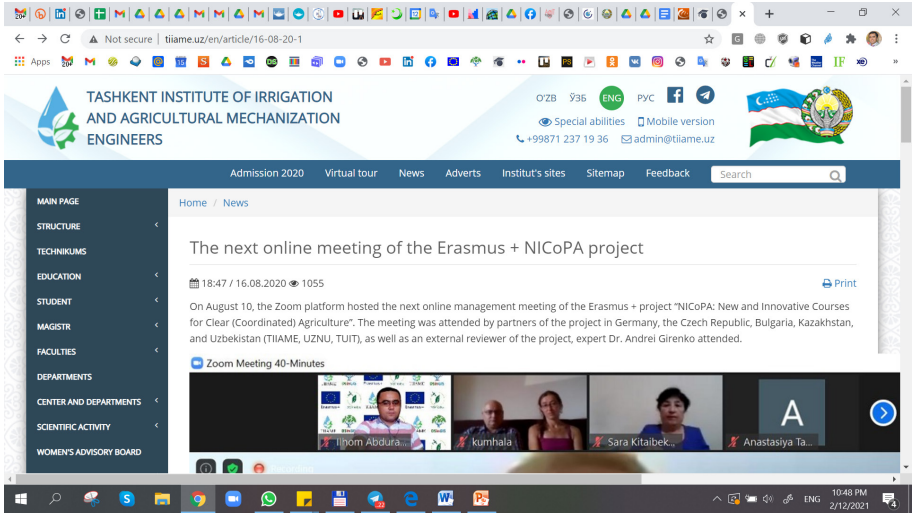
To complete BSc program in Innovative technologies in Remote Sensing of Land Resources students should score 240 ECTS, and to get MSc degee in Geoinformation systems and technologies, they should score 120 ECTS at all. Credits are devided into the three modules that are general (21%), major (48%) and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

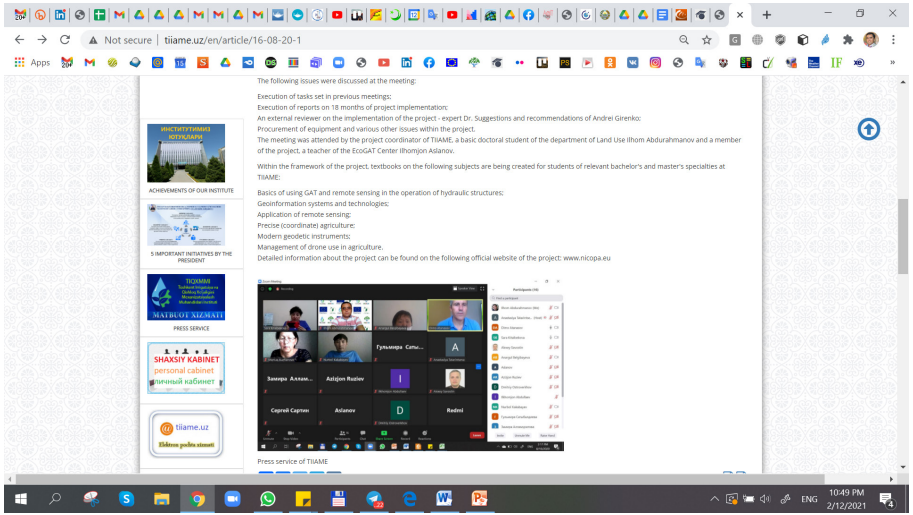
**References**

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 (EPCA): Disaster Risk Management With Spatial Methods”, http://www.eu-epca.eu/.
3. Erasmus+ CBHE Project “NICoPA: New and Innovative courses for Precision Agriculture”, http://www.nicopa.eu/.

# 5.1. Dissemination (16.05.2020 till 15.11.2020)

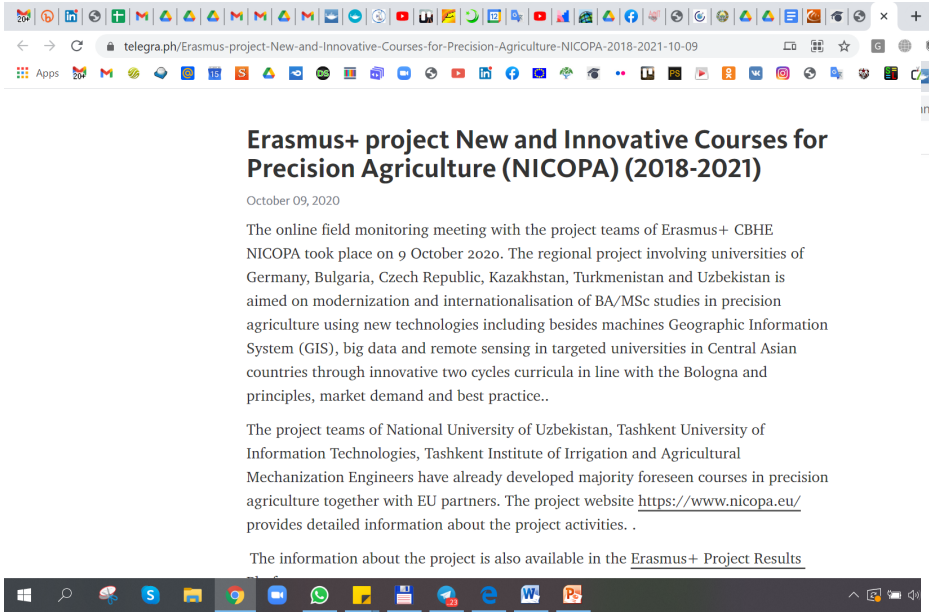
http://tiiame.uz/en/article/16-08-20-1



# 5.1. Dissemination (16.05.2020 till 15.11.2020)

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



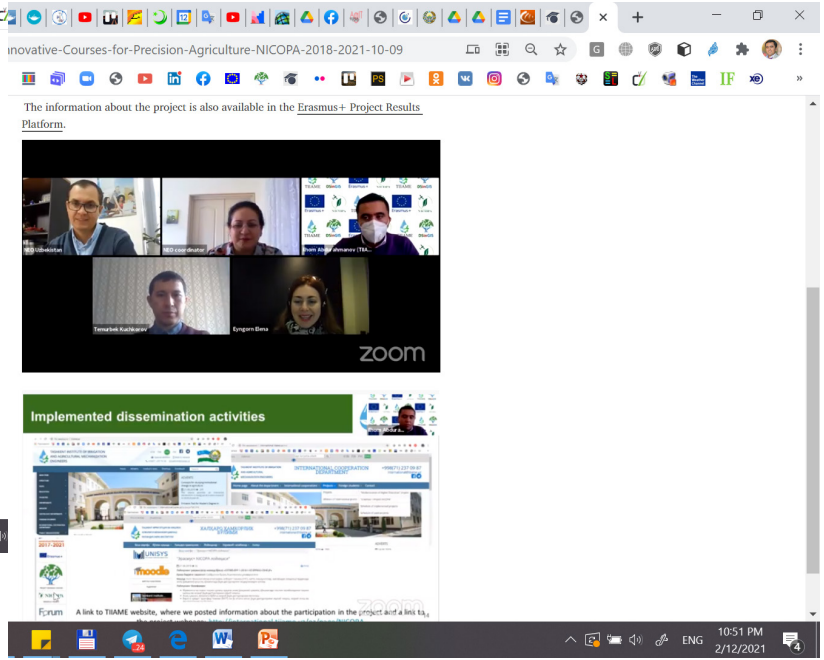
## Erasmus+ project New and Innovative Courses for Precision Agriculture (NICOPA) (2018-2021)

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



The information about the project is also available in the Erasmus+ Project Results Platform.

# 5.1. Dissemination (16.05.2020 till 15.11.2020)

## The 8th Scientific committee meeting of TIIAME, November 28, 2019

**PRESS RELEASE**

**5th Academic council's meeting**

**November 28, 2019, TIIAME, Tashkent, Uzbekistan**

**Agenda of the meeting**

1. Analysis of the implementation of decrees, resolutions, orders of the President of the Republic of Uzbekistan, decisions of the Cabinet of Ministers, orders and decisions of the Board of the Ministry of Higher and Secondary Special Education, issues raised in appeals of individuals and legal entities and decisions of the Academic Council.
2. Report on the spiritual and educational, moral and educational work carried out at the Institute in the 2018-2019 academic year and the planned spiritual and educational work for the 2019-2020 academic year, as well as information of the working group.
3. Information on the conduct of elections in accordance with the "Regulations on the procedure for hiring teachers in higher education institutions".
4. Information on the review of documents of pedagogical staff applying for a degree and recommendation for a degree
5. Report on the educational and scientific work carried out at the departments of the faculty "Hydromelioration" and the report on the action plan for their further development and information of the working group.
6. Various issues:
    a. Project Erasmus+ NICoPA, aims and activities.

**Participants**

About 60 participants including 53 permanent members of the Scientific Committee other invited people took part in the meeting.

**Contacts**

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**Тошкент ирригация ва қишлоқ хўжалигини механизациялаш муҳандислари институти**
**Илмий Кенгаш аъзолари йиғилишининг 2019-2020 ўқув йилидаги**
**5 - Илмий Кенгаш йиғилишининг**
**МАЖЛИС БАЁНИ**

2019 йил 28 ноябрь Тошкент ш.

**Қатнашдилар:** Илмий Кенгашнинг 53 аъзоси ва таклиф этилганлар (рўйхат илова қилинади).

**6. ТУРЛИ МАСАЛАЛАР**

**Раис Б.Мирзаев** – Кун тартибидаги 6-масала бўйича, яъни турли масалалар тўғрисида маълумот бериш учун сўз Илмий котиб Юлчиев Давронбек Гуламовичга, марҳамат.

**6.20. ЭШИТИЛДИ:**

**Раис Б.Мирзаев** – Кун тартибида кўрсатилган барча масалалар кўриб бўлинди. Энди навбатдан ташқари битта масала институтда Erasmus+ "DSinGIS" ва "NICOPA" халқаро лойиҳалар бўйича эришилган натижалар тўғрисида ҳисобот бериш учун сўз, "Геоинформатика" йўналиши 1-босқич таянч докторанти Абдурахмонов Илҳом Исаковичга, марҳамат.

**И.Абдурахмонов** – Институтда Erasmus+ "DSinGIS" ва "NICOPA" халқаро лойиҳалар бўйича эришилган натижалар тўғрисида ҳисобот берди. (Ҳисобот матни илова қилинади).

**Раис Б.Мирзаев** – Кўрилган масала юзасидан кимда қандай саволлар бор? Марҳамат.

**А.Раджабов** - Институтда лойиҳа доирасида ташкил этилаётган "GISCA 2020" **Scopus базасига** киритилган халқаро конференциясига мақолаларни топшириш талабларини қаердан олсак бўлади, мақолаларни рус тилида ҳам топширса бўладими?

**И.Абдурахмонов** – 2020 йил июнь ойида институт томонидан Erasmus+ DSinGIS лойиҳаси доирасида Австрия-Марказий Осиё GAT Маркази (ACA*GIScience) ҳамда Венгриядаги Obuda Университетининг Alba Regiya Техника факультети билан биргаликда ташкиллаштирилаётган "GISCA 2020" **Scopus базасига** киритилган халқаро конференциясига мақолаларни топшириш талаби институтнинг веб-сайтига жойлаштирилган. Мақолалар фақатгина инглиз тилида қабул қилинади.

**Раис Б.Мирзаев** – Маърузачиларга яна саволлар борми? Бошқа саволлар бўлмаса, қарор қисмини тасдиқлаб бериширингизни сўрайман. Қаршилар – йўқ, бетарафлар – йўқ. Раҳмат.

**6.20. ҚАРОР ҚИЛИНДИ:**

**1.** "Геоинформатика" йўналиши 1-босқич таянч докторанти И.Абдурахмоновнинг Институтда Erasmus+ "DSinGIS ва "NICOPA" халқаро лойиҳалари бўйича эришилган натижалар тўғрисида берган ҳисоботи ахборот учун қабул қилинсин.

**Институт Илмий Кенгаши раиси** Ш.Умурзаков

**Институт Илмий Кенгашининг котиби** Д.Юлчиев

# 5.1. Dissemination (16.05.2020 till 15.11.2020)

## ‘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+ DSinGIS project led by the Alba Regia Technical Faculty, Óbuda University, Hungary and the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME).

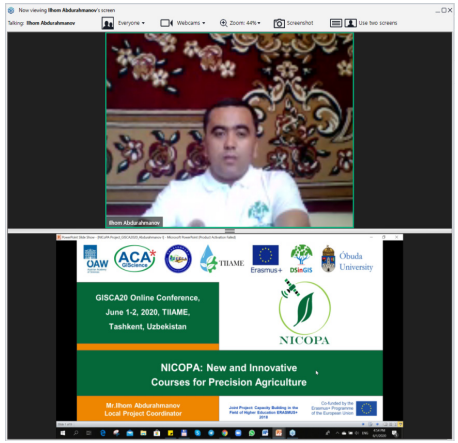
GISCA 2020 is supported by Trimble International, GeoTwo and the Austrian Academy of Sciences. The conference originally was planned to be held in Tashkent, Uzbekistan, but due to current circumstances has been scheduled entirely online as a virtual conference on June 1-2, 2020.

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





- 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+ DSinGIS 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+ DSinGIS project;
- Universität Salzburg, Austria;
- Alba Regia Technical Faculty, Óbuda University, Hungary;
- Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME).

### Contacts

**Contact to TIIAME** – Local organizers (Uzbekistan)
Conference secretary: ***Mr. Ilhom Abdurahmanov***, gisca2020@aca-giscience.org
Tel.: +998712371909, Fax: +998712373879
Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME)
Kory Niyoziy Str. 39, Tashkent 100000, UZBEKISTAN

**Contact to ACA-GIScience** (Kyrgyzstan):
***Dr. Akylbek Chymyrov***, akylbek.chymyrov@aca-giscience.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
Department of Geoinformatics, University of Salzburg &
GIScience Commission of the Austrian Academy of Sciences

# 5.1. Dissemination (16.05.2020 till 15.11.2020)

## IX annual International Scientific and Practical Conference, "Forest ecosystems in the conditions of climate change", Online, September 15-16, 2020

**PRESS RELEASE**

**IX annual International Scientific and Practical Conference**

**"Forest ecosystems in the conditions of climate change"**

**Online, September 15-16, 2020**

**About the Conference**

Volga State University of Technology is organizing the IX annual Scientific and Practical Conference, which will be held remotely on the Zoom platform. During the event, topical issues of scientific research and practice, monitoring and remote assessment of forest management, international projects and technologies in the field of forest ecosystems in a changing climate will be discussed.

The conference will bring researchers to address the issues of reforestation, monitoring and remote sensing of forest management, to explore and discuss opportunities and strengths related to forest ecosystems in the conditions of climate change. Several individual sessions of the event will be informed by several keynote speakers with extensive expertise in the field. Contributions are welcome on any aspect of modern forest science, including focused empirical, theoretical and practical contributions to forest management in the conditions of climate change. The conference is held in the framework of two international projects SUFOGIS (Erasmus+) and GEMOECO (BRICS).

**Key topics of the Conference**

Themes of presentations:

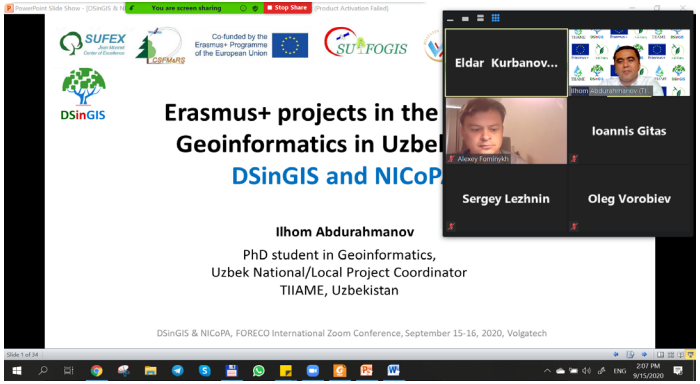
1. Biological productivity of forests.
2. Assessment of ecosystem disturbances.
3. Technologies for artificial reforestation.
4. The ecological role of forests.
5. Forest inventory and planning.
6. GIS and remote monitoring of ecosystems.
7. Forest conservation and protection.

**Conference Publication**

The conference proceedings are considered for publication in the annual Compendium "Forest Ecosystems under Climate Change: Biological Productivity and Remote Monitoring". Manuscripts are also welcomed for submissions to the Special Issue of Journal of Remote Sensing "Remote Sensing of Burnt Area Monitoring".

**Organizers**

Jean Monnet Center of Excellence, Center for Sustainable Forest Management and Remote Sensing.





**INTERNATIONAL ZOOM CONFERENCE**

**"Forest ecosystems in the conditions of climate change: biological productivity and remote sensing"**

**15-16 September 2020**

**Programme**

**15 September**

**8:00 – 9:40 Plenary session 1:** Official opening of the conference. Welcome from Volgatech.

**CET (Central European Time)** Please use this link to schedule your time: https://time.is/CET

**Chair**: Abraham Thomas (Council for Geoscience, South Africa)

| | |
|---|---|
| 7:50 – 8:00 | Opening and welcome. |
| 8:00 – 8:25 | **Extraction and modeling of main trunk of individual *Pinus densata* based on point cloud data**<br>*Jianpeng Zhang, Jinliang Wang, Guangjie Liu (Yunnan Normal University, China)* |
| 8:25 – 8:50 | **Regional-Scale Soil Organic Matter Estimation Based on a Geographic Detector Model using Landsat Data, Pingtan Island, Fujian, China**<br>*Junjun Fang, Xiaomei Li, Jingming Sha, Jiali Shang, Taifeng Dong, Yung-Chih Su, Na Jie, Yun Wu (Fujian Normal University)* |
| 8:50 – 9:15 | **Mapping of land use / land cover of KOSH region for the years 2019 & 2020 using Sentinel-2 data**<br>*Abraham Thomas (Council for Geoscience, South Africa)* |
| 9:15 – 9:40 | **Estimation of Land surface temperature and drought indices for the KOSH region during summer and spring seasons of year 2019**<br>*Noluvuyo Dudumashe, Abraham Thomas (Council for Geoscience, South Africa)* |
| 9:40 – 10:00 | *Break* |

**10:00 – 12:30 Plenary session 2.**

**Chair**: Eldar Kurbanov (Volgatech)

| | |
|---|---|
| 10:00 – 10:25 | **Forest Phenological Trends in the Middle and High Latitude of the Northern Hemisphere Using GIMMS_NDVI3g_Phenology Data**<br>*Huang Jingfeng, Zhejiang University (China)* |
| 10:25 – 10:50 | **Ecological Vulnerability Assessment Based on SRP Model - Taking Pingtan in Fujian Province as an Example**<br>*Jingming Sha (China)* |
| 10:50 – 11:15 | **On-the-fly land cover mapping using machine learning with multispectral satellite imagery on Google Earth Engine**<br>*Stefanos Papaioannidis, AUTh (Greece)* |
| 11:15 – 11:40 | **Combining remote sensing and national forest inventory data for large scale forest structure assessment**<br>*Christof Pucher, BOKU (Austria)* |
| 11:40 – 12:05 | **Erasmus+ projects in the field of Geoinformatics in Uzbekistan: DSinGIS and NICoPA**<br>*Ilhom Abdurahmanov, TIIAME (Uzbekistan)* |
| 12:05 – 12:30 | *Questions, discussion* |

# 5.1. Dissemination (16.05.2020 till 15.11.2020)

## Online field monitoring meeting with NEO UZ, October 9, 2020

NICOPA

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

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

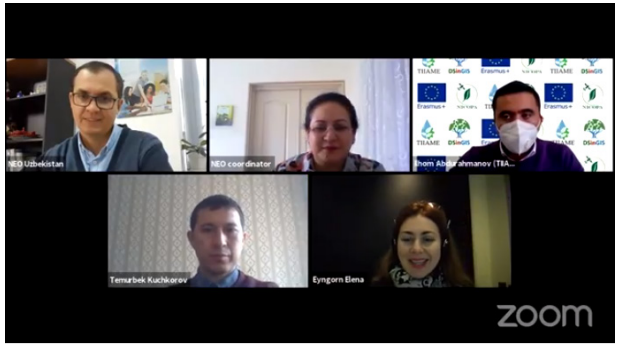
**NICOPA PROJECT**
**«New and Innovative Courses for Precision Agriculture" (NICOPA)**
**597985-EPP-1-2018-1-KZ-EPPKA2-CBHE-JP**

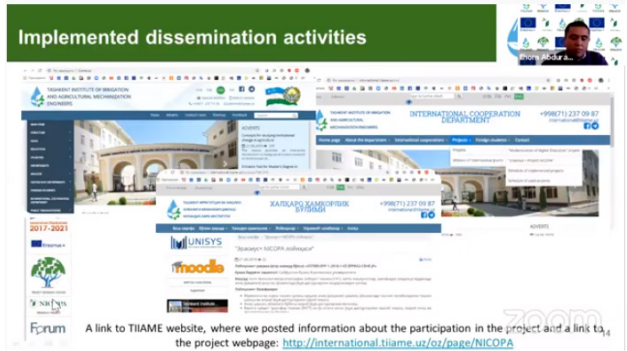
**Advisory monitoring meeting** (Online)

**9 October 2020 at 14.30** (Tashkent time)
Online communication details: https://us02web.zoom.us/j/81960206603

**MEETING AGENDA**

| | | |
|---|---|---|
| 14:30-14:40 | Opening speech | **Raima Shirinova**, Vice-rector for International Relations of NUU |
| 14:40-14:50 | Objectives of the Advisory Monitoring visit | **Aziza Abdurakhmanova**, NEO coordinator<br>**Kudratkhon Bakhadirov**, NEO expert |
| 14:50-15:20 | Activities performed of NICOPA project in TIIAME | **Ilhom Abdurahmanov**, Institutional coordinator of NICOPA project |
| 15.20-15.50 | Activities performed of NICOPA project in TUIT | **Temurbek Kuchkorov**, Institutional coordinator of NICOPA project |
| 15:50-16:20 | Activities performed of NICOPA project in NUU and, in general, in Uzbekistan | **Abdumanap Nasirov**, National coordinator of NICOPA project |
| 16:20-16:35 | On the progress of work on the NICOPA project in partner universities of Uzbekistan | **Anastasiya Tatarintseva** - Project Manager, EXOLAUNCH GmbH, Berlin, Germany,<br>**Sara Kitaibekova** – Project coordinator, S. Seifullin KATU, Kazakhstan |
| 16:35-17:00 | Discussion | All participants |
| 17:00-17:10 | Conclusions and preliminary recommendations of the monitoring | **Aziza Abdurakhmanova**, NEO coordinator<br>**Kudratkhon Bakhadirov**, NEO expert |




NICOPA

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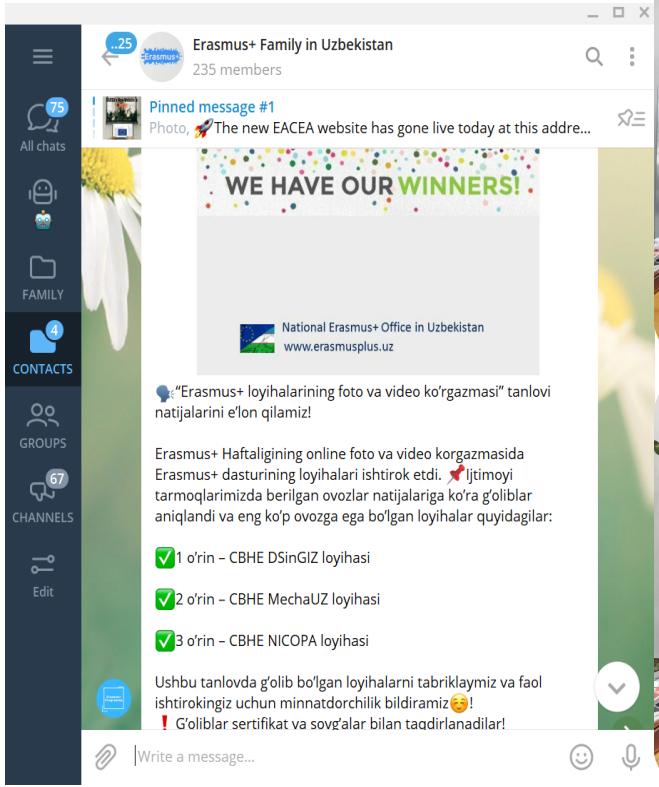
**Advisory monitoring meeting** (Online)
**9 October 2020 at 14.30** (Tashkent time)

***List of participants***

| Organisation | Name, surname, position, email of authorized representatives |
|---|---|
| National University of Uzbekistan | Raima Shirinova, Vice-rector for International Relations of NUU r.shirinova@nuu.uz<br>Abdumanap Nasirov, Associate professor, National coordinator, aanasirov1962@mail.ru<br>Ilkhomjon Abdullaev, Senior Lecturer, Local Manager, ilkhomjon.abdullaev@gmail.com<br>Pavel Parchinskiy, Associate professor, project member, pavelphys@mail.ru<br>Azizjon Ruziev, Senior Lecturer, project member, azizjon.ruziev84@gmail.com<br>Andrey Nebesny, Blogger of the project, nebesny-andrey@yandex.ru |
| Tashkent University of Information Technologies | Temurbek Kuchkorov, Associate professor, Local coordinator timanet4u@gmail.com<br>Zamira Allamuratova, Lecturer, project member, zamira74@mail.ru<br>Mexriddin Raximov, Associate professor, project member, raximov022@gmail.com<br>Nozima Atadjanova, Teacher assistant, project member, nozimaatadjanova@gmail.com |
| Tashkent Institute of Irrigation and Agricultural Mechanization Engineers | Ilhom Abdurahmanov, Researcher, Local Coordinator, ilhom.isakovich@gmail.com<br>Mamanbek Reimov, Researcher, Local Manager, maman1990@mail.ru<br>Zokhid Mamatkulov, Researcher, project member, zohid3095@gmail.com<br>Ilhomjon Aslanov, Assistant Professor, project member, ilhomaslanov@gmail.com |
| EXOLAUNCH GmbH | Anastasiya Tatarintseva, Project Manager anastassia@exolaunch.com |
| S. Seifullin KATU, Kazakhstan | Sara Kitaibekova, Project coordinator, saraorazbek@mail.ru |
| National Erasmus+ Office (NEO) in Uzbekistan | Aziza Abdurakhmanova, NEO coordinator, coordinator@erasmusplus.uz<br>Kudratkhon Bakhadirov, NEO expert, expert@erasmusplus.uz<br>Gulshoda Karlibaeva, NEO project manager, neo@erasmusplus.uz |

# 5.1. Dissemination (16.05.2020 till 15.11.2020)

## Erasmus+ Info Week, online, on Telegram group, October 12-17, 2020



# 5.1. Dissemination

## Schedule of dissemination events for 2021 year

| № | Dissemination event | Dissemination method | Period |
|---|---|---|---|
| 1 | Results of MasterClasses held on January-March, 2021 | Event-based, web-based | March |
| 2 | Presentation about project and its achievements, seminar for the students, TIIAME, Tashkent, Uzbekistan | Event-based, web-based | March |
| 3 | International Earth Day, TIIAME, Tashkent, Uzbekistan | Event-based, web-based | April |
| 4 | Annual Republican XX practical-scientific conference of young scientists, MSc and BSc students on topic "Modern problems of agriculture and water resources", TIIAME, Tashkent, Uzbekistan | Event-based, web-based | May |
| 5 | International GIS in Central Asia Conference – GISCA 2021, Online, Multi-Hub, Bishkek, Tashkent, Dushanbe | Event-based, web-based | May-June |
| 6 | Erasmus+ Info Day | Event-based, web-based | October |
| 7 | International Conference, International GIS day, TIIAME, Tashkent, Uzbekistan | Event-based, web-based, traditional | November |
| 8 | Information about project achievements on Scientific and technical journal “Sustainable agriculture” | Traditional | December |
| 9 | Information about project related events, achievements, materials etc. on the web of:<br>- Erasmus+ DSinGIS project (http://geoinformatics.uz/dsingis/, http://dsingis.eu);<br>- TIIAME (http://tiiame.uz);<br>- Social media and channels (http://facebook.com, http://telegram.org);<br>- mass media (http://kun.uz, http://uza.uz, http://uzbekistan24.uz, http://daryo.uz) | Web-based | Regularly |

# 5.2. Regional Cooperation

## NICoPA+ Agreements

- ✓ *6 (six)NICoPA+ agreements have been signed so far with the following non-academic stakeholders:*
- *“Azimut GEO” LLC;*
- *“GEO EXPERTS” LLC;*
- *“GRAND-PERFECT-PROJECT” LLC;*
- *“Development Experts” LLC;*
- *“Innovations and Scientific Research Cluster”;*
- *“GEOINFORM ENGINEERS GROUP” LLC.*
- ➢ *4 (four) planned to be signed.*

СОГЛАШЕНИЕ “NICOPA University-Enterprise”

№ 2020-02/UZ

Соглашение
“NICOPA University – Enterprise”

**“Новые и инновационные программы по точному сельскому хозяйству”**

Стороны Соглашения

Настоящее Соглашение заключено между Университетом - участником консорциума проекта “NICOPA”, именуемым в дальнейшем “Университет”, с одной стороны

**Ташкентский институт инженеров ирригации и механизации сельского хозяйства (ТИИИМСХ),**
Республика Узбекистан, 100000, г. Ташкент, ул. Кары Ниёзий 39

и неакадемической организацией

**“Кластер инноваций и научных исследований по устойчивому развитию”,**
Республика Узбекистан, 100000, г. Ташкент, ул. Кары Ниёзий 39

Cooperation Agreement
“NICOPA University-Enterprise”

Cooperation Agreement
“NICOPA University – Enterprise”

**“New and Innovative Courses for Precision Agriculture”**

Parties to the Agreement

This is a cooperation Agreement among the consortium members of “NICOPA”, hereinafter referred to as “University” on the one hand

**Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME),**
str. Kary Niyaziy, 39, Tashkent 100000, Uzbekistan

and a non-academic organization

**“Innovations and Scientific Research Cluster”,**
str. Kori Niyoziy, 39, Tashkent 100000, Republic of Uzbekistan

Cooperation Agreement
“NICOPA University-Enterprise”

Cooperation Agreement
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**“New and Innovative Courses for Precision Agriculture”**

Parties to the Agreement

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**Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME),**
Kary Niyaziy, 39, Tashkent 100000, Uzbekistan

and a non-academic organization

**“Development Experts” LLC,**
Yunusabad-12, 11/27, Tashkent 100000, Uzbekistan

Cooperation Agreement
“NICOPA University-Enterprise”

Cooperation Agreement
“NICOPA University – Enterprise”

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Kary Niyaziy, 39, Tashkent 100000, Uzbekistan

and a non-academic organization

**“GEOINFORM ENGINEERS GROUP” LLC,**
Yashnaobod, Street Parkent, 6, Tashkent, Uzbekistan

СОГЛАШЕНИЕ “NICOPA University-Enterprise”

№ 2019-02/UZ

Соглашение
“NICOPA University – Enterprise”

**“Новые и инновационные программы по точному сельскому хозяйству”**

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**Ташкентский институт инженеров ирригации и механизации сельского хозяйства (ТИИИМСХ),**
Республика Узбекистан, 100000, г. Ташкент, ул. Кары Ниёзий, 39

и неакадемической организацией

**“GEO EXPERTS” ООО,**
Республика Узбекистан, 100000, г. Ташкент, ул. Шарк, квартал-1, 1/3

Cooperation Agreement
“NICOPA University-Enterprise”

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“NICOPA University – Enterprise”

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str. Kary Niyaziy, 39, Tashkent 100000, Uzbekistan

and a non-academic organization

**“GEO EXPERTS” LLC,**
str. Shark, block-1, 1/3, Tashkent 100000, Uzbekistan

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str. Kary Niyaziy, 39, Tashkent 100000, Uzbekistan

and a non-academic organization

**“Azimut GEO” LLC,**
str. 2-Darkhontepa, 7, Tashkent 100000, Uzbekistan

Cooperation Agreement
“NICOPA University-Enterprise”

Cooperation Agreement
“NICOPA University – Enterprise”

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**Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME),**
str. Kary Niyaziy, 39, Tashkent 100000, Uzbekistan

and a non-academic organization

**“GRAND-PERFECT-PROJECT” LLC,**
str. Farnux, 4/22, Tashkent 100000, Uzbekistan

# 5.2. Regional Cooperation

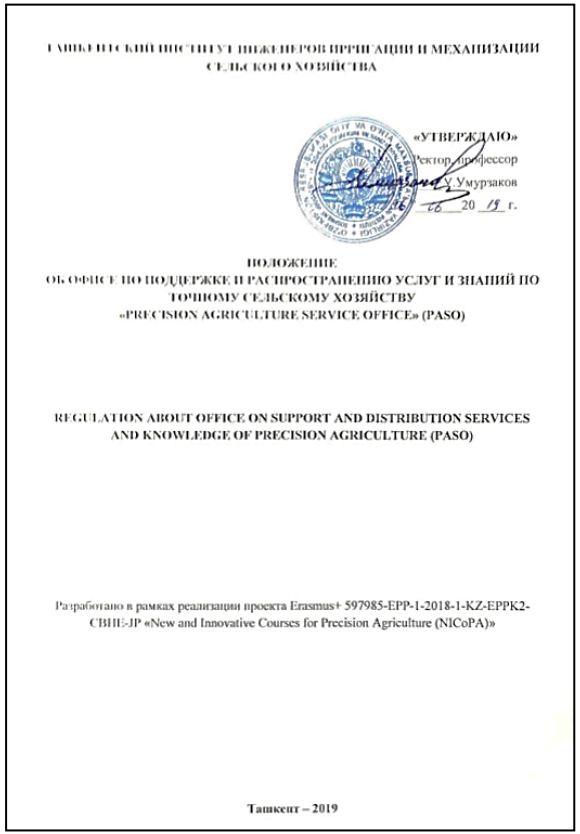
**3 bilateral agreements with the following consortium members were signed**

- *Sh. Ualikhanov Kokshetau State University, Kazakhstan;*
- *S. Seifullin Kazakh Agrotechnical University, Kazakhstan;*
- *Engineering Consulting and Management for Space Technologies GmbH.*

| Table 5.2. INDUSTRIAL PARTNERS | |
|---|---|
| **Please, provide a list of new industrial partners, with which you maintain communication within the last 6 project months, and which could be interested in hiring your graduates** | List of industrial partners:<br>• Cadastral Agency under the Tax Committee of the Republic of Uzbekistan. |

# 5.3. Sustainability of PASO Offices

## - The Regulation of the PASO



ТАШКЕНТСКИЙ ИНСТИТУТ ИНЖЕНЕРОВ ИРРИГАЦИИ И МЕХАНИЗАЦИИ СЕЛЬСКОГО ХОЗЯЙСТВА

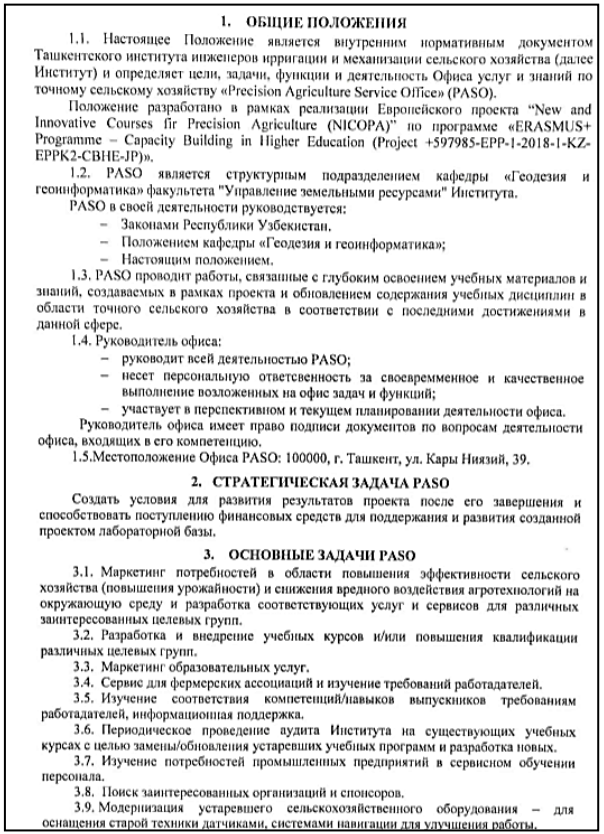
«УТВЕРЖДАЮ»
Ректор, профессор
Х.Умурзаков
06 20 19 г.

ПОЛОЖЕНИЕ
ОБ ОФИСЕ ПО ПОДДЕРЖКЕ И РАСПРОСТРАНЕНИЮ УСЛУГ И ЗНАНИЙ ПО ТОЧНОМУ СЕЛЬСКОМУ ХОЗЯЙСТВУ
«PRECISION AGRICULTURE SERVICE OFFICE» (PASO)

REGULATION ABOUT OFFICE ON SUPPORT AND DISTRIBUTION SERVICES AND KNOWLEDGE OF PRECISION AGRICULTURE (PASO)

Разработано в рамках реализации проекта Erasmus+ 597985-EPP-1-2018-1-KZ-EPPK2-CBHE-JP «New and Innovative Courses for Precision Agriculture (NICoPA)»

Ташкент – 2019



### 1. ОБЩИЕ ПОЛОЖЕНИЯ

1.1. Настоящее Положение является внутренним нормативным документом Ташкентского института инженеров ирригации и механизации сельского хозяйства (далее Институт) и определяет цели, задачи, функции и деятельность Офиса услуг и знаний по точному сельскому хозяйству «Precision Agriculture Service Office» (PASO).

Положение разработано в рамках реализации Европейского проекта "New and Innovative Courses fir Precision Agriculture (NICOPA)" по программе «ERASMUS+ Programme – Capacity Building in Higher Education (Project +597985-EPP-1-2018-1-KZ-EPPK2-CBHE-JP)».

1.2. PASO является структурным подразделением кафедры «Геодезия и геоинформатика» факультета "Управление земельными ресурсами" Института.

PASO в своей деятельности руководствуется:

- Законами Республики Узбекистан,
- Положением кафедры «Геодезия и геоинформатика»;
- Настоящим положением.

1.3. PASO проводит работы, связанные с глубоким освоением учебных материалов и знаний, создаваемых в рамках проекта и обновлением содержания учебных дисциплин в области точного сельского хозяйства в соответствии с последними достижениями в данной сфере.

1.4. Руководитель офиса:

- руководит всей деятельностью PASO;
- несет персональную ответственность за своевременное и качественное выполнение возложенных на офис задач и функций;
- участвует в перспективном и текущем планировании деятельности офиса.

Руководитель офиса имеет право подписи документов по вопросам деятельности офиса, входящих в его компетенцию.

1.5.Местоположение Офиса PASO: 100000, г. Ташкент, ул. Кары Ниязий, 39.

### 2. СТРАТЕГИЧЕСКАЯ ЗАДАЧА PASO

Создать условия для развития результатов проекта после его завершения и способствовать поступлению финансовых средств для поддержания и развития созданной проектом лабораторной базы.

### 3. ОСНОВНЫЕ ЗАДАЧИ PASO

3.1. Маркетинг потребностей в области повышения эффективности сельского хозяйства (повышения урожайности) и снижения вредного воздействия агротехнологий на окружающую среду и разработка соответствующих услуг и сервисов для различных заинтересованных целевых групп.

3.2. Разработка и внедрение учебных курсов и/или повышения квалификации различных целевых групп.

3.3. Маркетинг образовательных услуг.

3.4. Сервис для фермерских ассоциаций и изучение требований работадателей.

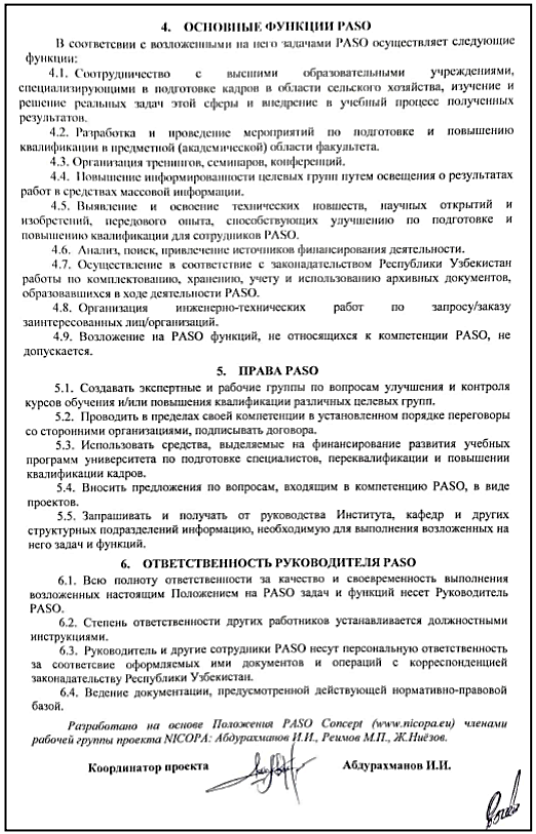
3.5. Изучение соответствия компетенций/навыков выпускников требованиям работадателей, информационная поддержка.

3.6. Периодическое проведение аудита Института на существующих учебных курсах с целью замены/обновления устаревших учебных программ и разработка новых.

3.7. Изучение потребностей промышленных предприятий в сервисном обучении персонала.

3.8. Поиск заинтересованных организаций и спонсоров.

3.9. Модернизация устаревшего сельскохозяйственного оборудования – для оснащения старой техники датчиками, системами навигации для улучшения работы.



### 4. ОСНОВНЫЕ ФУНКЦИИ PASO

В соответствии с возложенными на него задачами PASO осуществляет следующие функции:

4.1. Сотрудничество с высшими образовательными учреждениями, специализирующими в подготовке кадров в области сельского хозяйства, изучение и решение реальных задач этой сферы и внедрение в учебный процесс полученных результатов.

4.2. Разработка и проведение мероприятий по подготовке и повышению квалификации в предметной (академической) области факультета.

4.3. Организация тренингов, семинаров, конференций.

4.4. Повышение информированности целевых групп путем освещения о результатах работ в средствах массовой информации.

4.5. Выявление и освоение технических новшеств, научных открытий и изобретений, передового опыта, способствующих улучшению по подготовке и повышению квалификации для сотрудников PASO.

4.6. Анализ, поиск, привлечение источников финансирования деятельности.

4.7. Осуществление в соответствие с законодательством Республики Узбекистан работы по комплектованию, хранению, учету и использованию архивных документов, образовавшихся в ходе деятельности PASO.

4.8. Организация инженерно-технических работ по запросу/заказу заинтересованных лиц/организаций.

4.9. Возложение на PASO функций, не относящихся к компетенции PASO, не допускается.

### 5. ПРАВА PASO

5.1. Создавать экспертные и рабочие группы по вопросам улучшения и контроля курсов обучения и/или повышения квалификации различных целевых групп.

5.2. Проводить в пределах своей компетенции в установленном порядке переговоры со сторонними организациями, подписывать договора.

5.3. Использовать средства, выделяемые на финансирование развития учебных программ университета по подготовке специалистов, переквалификации и повышении квалификации кадров.

5.4. Вносить предложения по вопросам, входящим в компетенцию PASO, в виде проектов.

5.5. Запрашивать и получать от руководства Института, кафедр и других структурных подразделений информацию, необходимую для выполнения возложенных на него задач и функций.

### 6. ОТВЕТСТВЕННОСТЬ РУКОВОДИТЕЛЯ PASO

6.1. Всю полноту ответственности за качество и своевременность выполнения возложенных настоящим Положением на PASO задач и функций несет Руководитель PASO.

6.2. Степень ответственности других работников устанавливается должностными инструкциями.

6.3. Руководитель и другие сотрудники PASO несут персональную ответственность за соответствие оформляемых ими документов и операций с корреспонденцией законодательству Республики Узбекистан.

6.4. Ведение документации, предусмотренной действующей нормативно-правовой базой.

*Разработано на основе Положения PASO Concept (www.nicopa.eu) членами рабочей группы проекта NICOPA: Абдурахманов И.И., Реимов М.П., Ж.Ниёзов.*

**Координатор проекта** **Абдурахманов И.И.**

# 6. Social and Gender Inclusion

- Involvement of people with fewer opportunities (examples are provided below) in % of the students involved in the curricula developed in the framework of the NICOPA project:
  - *3.7 %*

- The gender balance in % of the students involved in the curricula developed in the framework of the NICOPA project:
  - *25 % female*
  - *75 % male*

# 7. Communication process, additional information

We use the following communication ways to communicate with other PC Universities, EU partners, the Coordinator and other project participants:

✓ *Zoom, Skype, email, Facebook messenger, Telegram, telephone, face-to-face*

Do you communicate via Skype, email, telephone, etc.? What are the advantages/disadvantages of the means of communication that you use?

✓ *Yes, advantages: save time, free of charge in 90% case,*

Are there problems with the communication process? If yes, inform us about them in detail.

✓ *There are no problems with the communication process.*

# 7. Communication process, additional information

If you have any other additional important information, complaints, suggestions, problems with the project implementation process (or other project related processes) that you want to discuss/report, please, inform us about it.

- *I think it is really necessary to strengthen monitoring of the implementation of tasks within the project;*
- *Moreover, it is very important to organize Project Management Board meeting once a month.*

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NICOPA

# Thank you for your attention!

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