NICOPA Project Achievement Report

New and Innovative Courses for Precision







NATIONAL RESEARCH UNIVERSITY "TASHKENT INSTITUTE OF IRRIGATION AND AGRICULTURAL MECHANIZATION ENGINEERS" (NRU "TIIAME")

MR. ILHOM ABDURAHMANOV
Local Project Coordinator

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



Project activities & results WP1 Preparation



Resolution on the project

O'ZBEKISTON RESPUBLIKASI OLIY VA O'RTA MAXSUS TA'LIM VAZIRURGE

MUHANDISLARI INSTITUTI



MINISTRY OF HIGHER AND SECONDARY SPECIALIZED EBUCATION OF THE REPUBLIC OF UZBEKISTAN

ASHKENT INSTITUTE OF IRRIGATION AND AGRICULTURAL MECHANIZATION ENGINEERS

БУЙРУК

Тошкент ш.

Институтда Европа иттифоки томонидан эклон килинган Эразмус+ дастурининг Олий тавлимда салохиятии ошириш йўналиши буйича 597985-ЕРР-1-2018-1-KZ-EPPKA2-CBHE-JP "NICoPA: New and Innovative Courses for Precision Agriculture" (Аник (координатали) кишлок хужалиги учун янги ва ниновацион курслар) лойихасини амалга ошириш учун ишчи гурух тузиш тўгрисила

Институтда Европа иттифоки томонидан Эразмус+ дастурининг Олий таълимда салохиятни оппириш йўналишида этлон килинган такловда стакчи таклим мунесевен енфитила кулга киритилган 597985-FPP-1-2018-1-КZ-FPPКА2-СВНЕ-ЈР "NICoPA: Аник (коордиватали) кишлок хужалиги учун лиги ва инновацион курслар" дойнудсини амалга опперини мудакти давомида (15.11.20188.-14.11.20218.) Европа Иттифоки мольявий кўмаги ёрдамида бажарилаёттан шилар самарадорлигини оппирини максадила:

БУЮРАМАН:

- 1. Институтда Европа эттифоки томонидан моликлаштиришёттан Эразмус+ дастурининг "NICoPA: Аник (координатади) юнилок хужалиги учун инги на инновацион курслар" лойихаен оддига куйниган вазифаларин амашта ошириш максалида лойиханинг ишчи гурухи 1-иловага асосан тасдиклансин.
- 2. Мазкур лойиха доирасида вазифаларии амалга оширинда ишчи гурух аьзоларивинг 2-иловада берилган лойиханинг ишчи пакетлари (working packages)га амал килишлари таъминлансин.
- 3. Лойиханинг институтдаги координатори этиб Халкаро хамкорлик булими бошлиги И.Абдурахманов тайинлансин.
- 4. Мазкур буйрук ижросини таъминлаш Ўкув ишлар буйича проректор Б.Мирзаев зиммаента юклатилени.

Асос: Узбекистон Республикаси Олий ва ўрта макеус таклим возирлигишне 07.11.2018 йилдаги №87-03-3805 сонии хати.



TXXXXXX - 475 - 50 - 59

Институт ректорининг 2018 йил 44 декабрааги 909 M4-сонли буйругига 1-илова

Институтда Еврона иттифоки Эразмус+ дастурининг Олий таълимда салохиятии опириш йўналишида 585718-ЕРР-1-2017-1-НИЕРРКА2-СВНЕ-ЈР 597985-ЕРР-1-2018-1-КZ-ЕРРКА2-СВНЕ-ЈР "NICoPA: Аник (координатали) кишлок хужалиги учун янги ва инновацион курслар" лойихаси допрасида бажариладитан ишларин амалга ошириш буйича ишчи гурух таркиби

Nt.	Ф.И.Ш	Вазифаси	
1.	У.У мурзаков	Лойиханиш бошкарув хенгаши рохбари, институт ректори, лойиханинг ул вактила ва сифотпо бажарилишша жазобтар.	
2.	Б.Мирзаев	Лойиханийг бошкарув кенгаши авзоси лойиханийг ўз вактида на сифатла бажарилилига жавобгар.	
3,	И Абдурахманов	Лойнханинг бошкарув кенгани авзосн дойнханинг институтдаги координатори дойнханинг ўз вактида ва сифатлі бажарилишига жавобтар.	
4.	М.Реймов	Лойихания бошкарув кеңгаши авлоси дойиханият институтлати бошкарувчиси дойиханият ўз вактида ва сифатлі бажарилицига жавобтар.	
5.	И.Хасанов	Пойиха хисобчиси, молиявий масалалар буйнув масьул.	
6.	А.Бабажанов	Лойиханинг ишчи гурухи авлоси.	
7.	А.Мукумов	Лойиханинг ишчи гурухи авзоси.	
8.	3.Хафизова	Лойиханинг ишчи гурухи аьзоси.	
9.	СШарипов	Лойиханияг ишчи гурухи аьзоси.	
10.	Р.Ойматов	Лойиханинг ишчи гурухи авзоси.	
11.	Х. Абдивантов	Лойиханинг ишчи гурухи аьзоси.	
12.	Ш.Нарбаев	Лойиханинг ишчи гурухи авзоси.	
13.	А.Инамов	Лойиханинг ишчи гурухи аьзоси.	
14.	3.Маматкулов	Лойиханияг ишчи гурухи аклоси.	
15.	А.Хамралиев	Лойиханинг ишчи гурухи аьзоси.	
16.	У.Мухторов	Лойиханинг ишчи гурухи аклоси.	
17.	Х.Хасанов	Лойиханинг ишчи гурухи явзоси.	
18.	И.Асланов	Лойиханияг ишчи гурухи льзоси,	
19.	3. Абдурахманов	Лойиха иш ўрганувчиси.	
20.	Ж.Ниёзов	Лойиха иш ўрганувчиси.	

Институт ректоривнит 2018 ймл 14 декабрдаги 9/8 A9-сонди буйругига 2-илова

Институтда Европа иттифоки Эразмус+ дастурниниг Олий тавлимда салохиятын ошириш йўналишила 585718-ЕРР-1-2017-1-НИЕРРКА2-СВНЕ-ЈР 597985-ЕРР-1-2018-1-КZ-ЕРРКА2-СВНЕ-ЈР "NІСоРА: Аник (координатали) кишлок хужалиги учун янги ва инповацион курслар" дойихаен ишчи пакетлари (WP-working packages) изохи

Ишчи накетлари (working packages)	Ишчи пакстларининг кискача мазмуни
WPI	Тайфэгирлик. Лойиха тематикасита алождор маявжу, бавалавриатура ва магистратура ўкув режаларини тахди килиш, улардан лойиха допрасица янги таклик технологиялардан фойдалантан холда янгикаш учуч фандарии тандаб олиш ва бунині учун ўкув страпетияси вы курсатум партномасния тучкіі.
WP2	Гиновацион такалем бериплолицин ўз вчита одган явіті ўкуд ластуры ва трансфедан молулавріні тайёрлаці, ўкуз дастурініні мішаб чикшіі, уни висетнутда кабуд кідпіш ва аккредатациядан ўтказиці. Лаборатория жикозлары сотк одші ва ўрантіш. Янта ўкув дастурна вы модулира обійнч ўкітувчилар малакіскінні оцифиці. Бодоння дастуря тадабларні бўйнча мішкуд ўнув дастурларінні янгилаці миглантіц дастур яратіші.
WP3	Сифат режасига биноал ички/ташки сифатин бахолал кисоболарини камраб олган сифатин таъминлан стратегияси/режаси.
WP4	Төрхахма материаллар, төдбирлар, кушма веб плагиформа "NiCOPA+" келипунидан фойдаланий, пайклани таркатип ва експлуатация кипши. Хамкорлар билан биргаликда Ании (координатаци) кишлок, кужалити жизмати офиси (РАSО кужекапарици тайёрлали, уни аритип, жизмати офиси (РАSО уриатиш. РАSО учун колимаар малакасини опиципш минталавий/халкаро тармок ташкип этиш. Биткрувчила учун жизматили курсларини РАSОда ташкип коппак Жалкаро бакалавориатура/ магистратура ёзги мактаблари
WP5	Лойихани бошкариш, жумладан лойихани онлайн бошкариш, кунцик лойиха администрацияси ва координацияси.

Project activities & results WP1 Preparation



Internal workplan

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

TASHKENT INSTITUTE OF IRRIGATION AND AGRICULTURAL MECHANIZATION ENGINEERS



INTERNAL WORK PLAN

of the Erasmus+ CBHE Project

"NICoPA: New and Innovative courses for Precision Agriculture"

for 2018-2021 years

Project activities including deadlines and distribution of responsibilities among work
group members

Ne	Activities	Ref.	Performers	Start	End
1	Develop internal plan of activities of the project.	1.1 ÷ 5.2	LAbdurahmanov	01.12.2018	15.12.2018
2	Make a list of valid subjects/courses for analysis and future updates	1.1	Sh.Narbaev, M.Reimov	10.12.2018	20.12.2018
3	a) Develop questionnaires for analysis of existing curricular/disciplines (questionnaire for teachers, students, graduntes, young professionals, alumni; + a questionnaire for interested in project non- academic partners; potential employers, local associations, epresentatives of industrial enterprises, other parties that can somehow relate to the topic of the project b) Develop a schedule to conduct surveys c) Conduct surveys of various tanget groups d) Analyze the answered questionnaires	1.1	J.Abdurahmanov, Z.Mamutkulov	20.12.2018	15.04.2019
4	Develop an analytical report on the results of the analysis of existing curricula/disciplines. Make a list of curricula that you plan to upgrade. Develop a schedule for updates of the selected curricula.	1.1	Sh.Narbaev, M.Reimov, Z.Mamatkulov	15.04,2019	30.04.2019
5	Agreement on instructional strategy and guidelines for BA/MSc curricula design including the use of new Educational Technologies	1,2.	U.Umurzakov, B.Mirzaev, Sh.Narbaev, I.Abdurahmanov	15.11.2018	30.04.2019
6	a) Examine and adopt the received materials and develop on this basis their own courses, curricula, modules. Target universities should develop digital	2.1	Sh.Narbaev, I.Abdurahmanov, M.Reimov, Z.Mamatkulov, I.Aslanov, R.Oymatov, U.Mukhtorov	a)01.12.2018 b)01.10.2019	a)31.03.2020 b)31.10.2020

	b) Start pilot operation of PASO			b)01.09.2020	
20	Refresh training courses for graduates in PASO	4.5	LAbdurahmanov, Sh.Narbaev	01.09.2020	31.07.2021
21	Organization of International BA/ MSc Summer Schools	4.6	M.Reimov, A.Khamraliev, Z.Abdurahmonov, J.Niyozov	01.04.2020	31.04.2021
22	Management of the project including project management online, daily project administration and coordination	5.1	I.Abdurahmanov, M.Reimov	15.11.2018	14.11.2021
23	Coordination meetings	5,2	I.Abdurahmanov, M.Reimov	15.11.2018	14.11.2021
24	Monitoring and controlling of project activities: development of questionnaires for partner universities regarding project implementation	5,1	LAbdurahmanov, M.Reimov	M5, M11, M17, M29, M35	M6, M12, M18, M30, M36
25	Ensure using SKYPE/ZOOM to held meetings of the project consortium team.	5.1	I.Abdurahmanov, M.Reimov	15.11.2018	14.11.2021

Abbr.: PAL - Precision agriculture lab VCR - Virtual Class Room

PASO - Precision Agriculture Service Office

Coordinator of the project at THAME



LAbdurahmanov

Project activities & results WP1 Preparation



Review curricula

In total **13 curricula** (7 EU and 6 UZ) have been reviewed and 8 TIIAME specialists have been involved in the review process.

The following current curricula for BA/MSc in target area in TIIAME has been reviewed and we made a plan for revising existing modules:

5313400 – Geodesy and Geoinformatics (BA)

5410700 – Land Cadaster and Land Use (BA)

5450400 – Hydraulic Structures and Use of Pumping Stations (BA)

5A313401 – Geodesy and Geoinformatics (MSc)

5A410701 – Land Use and Management (MSc)

5A230105 – Economics of Agriculture (MSc)



New academic programs

New **MSc Program** "5A430401 – Precision Agriculture" was lunched from 2019 and 3 MSc students were accepted to study for 2019-2020 academic years at TIIAME.

New **BSc Program "5311200 – Innovative technologies in Remote Sensing of Land Resources**" was launched from 2020 and 50 BSc students were accepted to study for 2020-2021 academic years at TIIAME. The new/updated courses have been included to the new curricula of this program.



New and updated courses

It was agreed to **update** following **modules**:

- Geoinformation systems and technologies;
- Remote Sensing;

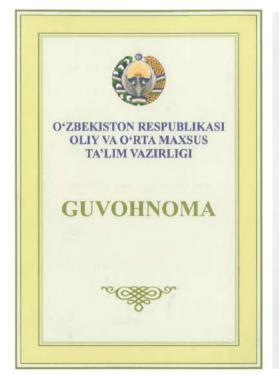
It was agreed to **develop** following **new modules**:

- Aerospace Image Internet Resource Information;
- Geodetic support of aerial photographs;
- Three-dimensional modeling in GIS;
- Computer graphics in cadastral works;
- Web-GIS;
- Advanced geodesy;

- Precision Agriculture;
- Modern geodetic equipment;
- GIS in using Hydrotechnical Structure;
- GIS in Hydrotechnical Construction;
- Basics of digital cartography;
- Ecological cartography.



New and updated courses









New and updated courses



Геоахборот тизимларида уч ўлчамли моделлаштириш



NICOPA Web the

ON RESPUBLIKASI OLIY VA OʻRT TA'LIM VAZIRLIGI

ENT IRRIGATSIYA VA QISHLOQ XOʻJA NIZATSIYALASH MUHANDISLARI INST

MUXTOROV O'.B., ABDURAXMONOV

GEOAXBOROT TIZIM TEXNOLOGIYALAR

FANIDAN maliy mashgʻulotlarni oʻtkazish boʻ metodik koʻrsatma

Toshkent 2020







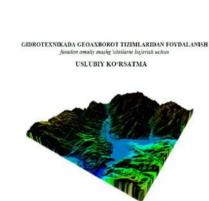




С.Н.Абдурахмонов, Ў.Б.Мукторов, О.С.Абдисаматов, А.Ю.Жўраев, А.Н.Инамов

ГЕОАХБОРОТ ТИЗИМ ВА

ТЕХНОЛОГИЯЛАРИ



NICOPA With the support of the



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information contained therein.



Criteria for teacher selection for training



NEW AND INNOVATIVE COURSES FOR PRECISION AGRICULTURE STORS FEET-1-3018-1-KZ-EPPKAZ-CHHE-JP
NICODA Solution Criteria



NICOPA Selection Criteria for teachers

Objective:

This document contains information about selection criteria for teachers to participate in trainings planned at EU universities.

Selection Committee:

- 1. Dr.Bahadir Mirzaev (Chair, Vice Rector for Academic Affairs, TIIAME)
- Dr.Sharafatdin Narbaev (Vice Chair, Dean of the faculty of Land Management, TIIAME)
- Dr.Sherzod Rakhmonov (Head of International Cooperation Department, TIIAME)
- 4. Mr.Ilhom Abdurahmanov (member, PhD student, TIIAME)

Compulsory (scanned) Documents:

- 1. Photocopy of international passport (only main/photo page)
- 2. Academic and/or professional Curriculum Vitae (europass model)
- 3. English language certificate
- 4. Motivation Letter
- 5. One letter of recommendation supporting your application
- 6. Other Documentation (optional)

Selection Criteria:

The selection procedure is established according to the minimum requirements set by the European Commission. The selection procedure guarantees the transparency of the selection process and an equitable treatment of individual applications. The selection process is starting with shortlisting. The short list will be based on an interview by national (local) coordinator persons for initial "filtering". This initial filtering based on rating contributes to the selection procedure. Rating is done by national (local) coordinator and is based on this standard evaluation form.

The Selection Committee will receive a summary of ratings and (filtered) proposals from the project administration, where we also will take care of all quotas as planned in the proposal. Each applicant will be interviewed. Based on the ratings and interviews the Selection Committee will provide a proposal for the project leader before places beine offered on the mobility programme.

NICOPA Point Score

Rating	Code Rating	
80- 100	Outstanding	
60- 80	Highly competent	

NECOPA:
NEW AND INNOVATIVE COURSES FOR PRECISION AGRICULTURE
Joint Project: Capacity Building in the Field of Higher Education ERASMUS907884-EPP-1-108-1-KF-2-FPK-3-CHIE-IP



NICOPA; NEW AND INNOVATIVE COURSES FOR PRECISION AGRICULTURE



40- 60	Competent	
20- 40	Not yet competent	
0- 20	Not achieved	

	Applicant: Fi	dl Name		
N≥	Criteria Items	Points max.	Points scores	
1.	Level of English of instruction at host institution	20		
2.	Average of grades in presented certificates	20		
3.	Prior Learning in subjects related with trainings within the project	20		
4.	Motivation letter	20		
5.	Bonus points (max. 4 points each) - Publishings - Policitions - Teaching Experience - First scholarship award - Other	20		
	TOTAL Points (/ 100)	100		
	Evaluator is encouraged to conduct a personal/phone interview where this is deemed necessary to fairly assess the candidate's qualifications Additional Comments:			

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NEW AND INNOVATIVE COURSES FOR PRECISION AGRICULTURE
Joint Project: Capacity Building in the Field of Higher Education ERASMUS29785-EFN-1-2016-1427-EFPXAZ-CHIR-JP



Retrain academic teachers by organization of Master Classes, workshops, trainings etc.

4 master classes have been organized and following teachers participated in at least 85 % classes:

- 1. Ilhom Abdurahmanov
- 2. Rustam Oymatov
- 3. Sarvar Abdurakhmonov
- 4. Zokhid Mamatkulov
- 5. Ilhomjon Aslanov
- 6. Uzbekhon Mukhtorov
- 7. Sharafatdin Narbaev
- 8. Khojiakbar Khasanov

- 9. Mokhigul Abdurakhimova
- 10. Barnokhon Saipova (Khalilova)
- 11. Akbarjon Khamraliev
- 12. Zoirjon Abdurakhmonov
- 13. Utkir Islomov
- 14. Abdulla Juraev
- 15. Aziz Inamov
- 16. Azamat Jumanov



Establishment of PASO, PAL and VCR

Precision Agriculture Service Office (PASO),

Precision Agriculture Laboratory (PAL) and

Virtual ClassRoom (VCR) established.

Opening ceremony – 12 October, 2021

EQ for VCR, PASO (24 000 Euro) and for PAL (8 000 Euro) have been purchased and installed.



Virtual Class Room





ERASMUS+

HIGHER EDUCATION CAPACITY BUILDING

Erasmus+ Project

New and Innovative Courses for Precision Agriculture (NICOPA)

Summary on Equipment Purchase – VCR Set THAME, Uzbekistan

Prepared by:
Ilbem Abdurahmenov
Local Project Coordinator, THAME
Email: ilbem isakovich@email.com



Co-funded by the Erasmust Programma of the European Union

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Item	Description	Quantity (pcs) for 1 University	Unit Price (EUR)	Total Price per item (EUR)
1	2	4	5	6=4 x 5
#VCR1	Personal Computer All in One Lenovo: MeaCentre 27IMB05 15 104'09I/ 8Gb/ 256Gb/DVDRW/Mouse/E8/27'/Win 10	12	1 195	14 340
#VCR2	Mobile Workstation Lemono Thindgad P1 i7 9750H/ 16Gh/ 512Gh/ T1800 4Gb Quadrof Win 10/15,6	1	2 785	2 785
#VCR3	Color MFD A3 EPSON WorkForce WF-7710DWF	1	614	614
#VCR4	Monochrouse MFD A4 Concert - SENSTS MF443 dw	1	490	490
#VCR5	Personal Cloud Storage Zyoul NASS 26 + 2x1076 HDD	2	1 210	2 420
#VCR6	Digital Camera (Kit) Camera ECS 4000D Kir	1	428	428
#VCR7	Smart Board Source board SB480	1	650	650
#VCR8	Projector Epson EB-580	1	1 286	1 286
#VCR9	Smoot TV Artel SSAU20H	1	690	690
#VCR10	UPS APT 1500VA Line Interactive E4615	1	214	214
#VCR11	24 port Gigabit Switch TENDA TEG1034D	1	83	83
	Total Amount (Euro) excluding V	AT		24 000

Summary on Equipment Purchase - VCR Set























EQ purchase for Virtual Class Room

Nº	Description / Наименование	Q-ty Кол-во
1	Personal Computer All in One/ Персональный компьютер все в одном Lenovo IdeaCentre 27IMB05 i5 10400T/8Gb/256Gb/DVDRW/Mouse/KB/27"/Win 10	12
2	Mobile Workstation/ Мобильная рабочая станция Lenovo Thinkpad P1 i7 9750H/16Gb/512Gb/T1000 4Gb Quadro/Win 10/15,6	1
3	Color MFD A3/ Цветное МФУ A3 EPSON WorkForce WF-7710DWF	1
4	Monochrome MFD A4/ Монохромное МФУ A4 Canon i-SENSYS MF443dw	1
5	Personal Cloud Storage/ Персональное облачное хранилище Zyxel NAS326 +2x10Tb HDD	2
6	Digital Camera (Kit)/ Цифровая камера (комплект) Canon EOS 4000D Kit	1
7	Smart Board/ Смарт доска Smart board SB480	1
8	Projector/ Проектор Epson EB-580	1
9	Smart TV/ Смарт ТВ Artel 55AU20H	1
10	UPS/ ИБП AVT 1500VA Line Interactive EA615	1
11	24 port Gigabit Switch/ 24-портовый гигабитный свитч TENDA TEG1024D	1



EQ purchase for Precision Agriculture Laboratory

Nº	Наименование товара
1	IMETOS® IMT280 базовая станция с осадкомером, датчиком температуры и влажности воздуха (гигроклипом), анемометром (механический), пиранометром
2	ECH874EXT Внешний интерфейс для подключения 1х датчика объемного содержания воды в почве производства Pessl Instuments или Meter Group, 4х тензиометрических датчиков Watermark + 1 х температура почвы с кабелем 5м.
3	SEN-SDI12 Внутренний интерфейс для подключения 2х профильных датчиков объемного содержания воды в почве типа Sentek или Aquacheck
4	IM5041D Универсальный датчик температуры почвы с сенсорной частью PI
5	PI54-D/5 Датчик объемного содержания воды в почве производства Pessl Instuments с кабелем 5м
6	MD510SM Тензиометрический датчик Watermark с кабелем 3,5м
7	TNS107 Тензиометр Irrometer 90см, без манометра
8	SE1200S Профильный датчик объемного содержания воды в почве производства Sentek D&D Triscan 120 см: 12х температура, 12х влажность и 12х соленость почвы, с кабелем 5м

Project activities & results WP3 Quality Plan



Quality Plan

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

TASHKENT INSTITUTE OF IRRIGATION AND AGRICULTURAL MECHANIZATION ENGINEERS

«AGREED»

Rector of THAME

U.Umarzakor

14 " January 2013

QUALITY ASSURANCE PLAN OF THAME

for the Erasmus+ CBHE Project

"NICoPA: New and Innovative courses for Precision Agriculture"

for 2018-2021 years

No.	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	LAbdurahmanov

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



Project activities & results WP3 Quality Plan



Quality Assurance Indicators

We have chosen the following quality indicators 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)

Project activities & results WP3 Quality Plan



Quality Group

#	Name, Surname	Occupation	Organization	Contact info (email)
1.	Bakhadir Mirzaev	Vice rector for Academic Affairs	TIIAME	bahadir.mirzaev@bk.ru
2.	Ilhom Abdurahmanov	PhD student, Department of Land Use, Faculty of Land Management	TIIAME	ilhom.isakovich@gmail.com
3.	Mamanbek Reimov	PhD student, EcoGIS Center, Faculty of Hydromelioration	TIIAME	maman1990@mail.ru
4.	Sharafatdin Narbaev	Dean, Faculty of Land Management	TIIAME	narbaev_sh@mail.ru
5.	Uzbekhon Mukhtorov	Senior teacher, Department of Geodesy and Geoinformatics	TIIAME	muxtorov-84@mail.ru
6.	Ilhomjon Aslanov	Assistant teacher, EcoGIS Center, Faculty of Hydromelioration	TIIAME	ilhomaslanov@gmail.com
7.	Zokhid Mamatkulov	PhD student in Geoinformatics, Faculty of Land Management	TIIAME	zohid3095@gmail.com
8.	Khojiakbar Khasanov	Assistant teacher, Department of Hydraulic structures, Faculty of Hydromelioration	TIIAME	kh.kh.khasanov@gmail.com
9.	Akbar Khamraliev	PhD student in Geoinformatics, Faculty of Land Management	TIIAME	khamraliyev@mail.ru
10.	Elbek Mamadaliev	MSc student in Precision Agriculture	TIIAME	
11.	Abdusoli Suyunov	Professor, Head of Department of Geodesy and Cartography (peer-reviewer)	Samarkand State Architecture and Civil Engineering Institute	suyunov_s@rambler.ru
12.	Utkir Shermanov	Specialist, Department of Computerization and Introduction of Geoinformation Systems (peer-reviewer)	"Geoinformcadastre" State Unitar Ent. (SUE)	shermanov.utkir@gmail.com
13.	Bakhodir Khakimov	PhD student in Land Management, Cadaster and Monitoring (Alumni)	Scientific Institute "Uzdaverloyiha"	mr.baxodir@mail.ru



Dissemination and Exploitation Plan

ERASMUS PLUS HIGHER EDUCATION CAPACITY BUILDING





Erasmus+ Project
New and Innovative Courses for Precision Agriculture
(NICOPA)

WP4 - Dissemination and Exploitation

NICOPA strategy - plan for Dissemination, Sustainability and exploitation

Prepared by: ECM Space Technologies GmbH

	Document conti	rol data	
Document ref.	NICOPA-WP4-ECM	V01	
Revision:	Original		
Date of issue:	01/03/2019		
Author's name:	A. Sterenharz/ECM	Status	Released

New and Innovative Courses for Precision Agriculture

NICOPA strategy - plan for Dissemination, Sustainability and exploitation

Effective dissemination is essential in order to make sure that the project and their effect will be visible. The NICOPA consortium will be disseminating the results of the project to multiple audiences, via different channels, at different intervals, etc. The aim of this dissemination strategy is to maximize the impact, visibility and credibility of the project. The objectives of the strategy are as follows:

- . Design, develop and regularly update the NICOPA website.
- Share information about the project and publish its findings via both traditional media (e.g. press relation) and digital media (e.g. social media)
- Transfer knowledge to industry about changes in academic area the creation of new training materials, educational resources and the new curricula.
- . Support the development of a strategy for the exploitation.

1. Strategy of activities

Dissemination & exploitation activities will address the following target groups and be organized following:

- Event-based dissemination. The project will organize a minimum of 3 annual dissemination workshops to inform and engage with the national academic communities. The Final project Conference will address a broader audience bringing together additionally policy makers.
 NGOs, education authorities, other stakeholders important to the best practice proliferation in the countries.
- Web-based dissemination. The project website will serve as a major interface and community building platform. In addition to being a repository to all tangible cutcomes (training and teaching materials, webinars, results of the Feasibility Study, Repository entry point, methodological materials, reference materials, etc.), it will enable community activities (blogs, social networks interface, FAQ, etc.). On top of that, all parmers will use other available web-based dissemination channels (sown websites, mailing lists, community resources). All tarent groups will be addressed.
- Traditional dissemination. The project will produce the set of traditional promotional materials, it will publish major results in media (general public) and professional journals (academic community). Additionally, the project will organize several briefing meetings with policy making stakeholders to enable a multiplier effect.
- Exploitation planning and exploitation of the results:
 Exploitation planning. The project will plan the exploitation (including how to bear running costs) of such principle outcomes as the set of developed methodological materials, the Repository, the website, etc. for the period of 3-5 years after the project end.
- Exploitation nature: public nature openly available for re-use.
 Involving into practical aspects of dissemination/exploitation: involving external stakeholders in Evaluation trial and in developing practical tutorials during workshops to ease external exploitation and ustake.

- The executive part of the Memorandum will include agreed and supported measures aimed at exploitation of the project results (concluded at the Final Conference).
- Activities after the end of the project. continuing further dissemination (as described above); developing ideas for future cooperation; evaluating achievements and impact, contacting relevant media; contacting policy-makers on request; cooperating with the European Commission by rooviding useful imputs to its dissemination and ecolorisation efforts.

Components of the dissemination and sustainability plan of the project

2.1. Target groups

2.1 Specific audience (SA):

- Academic community: students, researchers, professors or other people involved in activities related to the project's topic and interested in following its development and outcomes).
- stakeholders, potential employers of graduates, experts or practitioners in the field
- (graduate engineers) and other interested parties;
- decision-makers at local, regional, national level;

Generic audience (GA):

 People who may not have professional interests in the project, but that in terms of visibility result to be very important for the project.

2.2 Channels

- Traditional channels: local, regional, national press and media;
- Modern social networks, such as: Newsletter Facebook page; Twitter profile; Instagram, Research gate etc.

3. Activities:

- 3.1. In order to regularly update information on the project web-site to assign a "blogger" from each university.
- Development of a publication plan by each of the universities (1 publication every 3 months) (SA)
- 3.3. Publication can be in local or national media channels (newspapers, information leaflets, brochures, other print medis, TV et c), on the Website of the university, social media networks (for instance, Facebook, Instagram, Twitter, etc.), every publication should contain a link to the project website <u>worwn, jeops.qu.</u> every publication (scan of it if it's printed or link to it in the Internet where this publication is situated) should be sent to a satisfow@em.space.de
- 3.4. Schedule of local sustainability activities and dissemination of the project results (one event every 3 months) each year of the project, the schedule should be developed by the regional coordinator; activities can be local meetings of the partner universities, conferences etc.
- 3.5.Development of a list of related universities and non-academic partners involved in the activities of the project, organizations interested in the project.
- 3.6 Development of a schedule of meetings for non-academic partners, such as other universities, organizations that might be interested in the project
- 3.7. Preparation of press releases of each of the meetings mentioned in 3.4, and 3.6.



Dissemination Plan for 2018-2019 years

Nº	Dissemination event	Dissemination method	Period
1	Coordination meeting with Uzbek partner universities, NUU, Tashkent, Uzbekistan	Event-based	Nov., 2018
2	Project announcement on website of TIIAME, Tashkent, Uzbekistan	Web-based	Jan.,2019
3	Kick-off Meeting, TUB, Berlin, Germany	Event/web-based	March, 2019
4	Erasmus+ DSinGIS Awareness building seminar, SamSACEI, Samarkand	Event/web-based	April, 2019
5	Republican scientific-practical conference on "Innovative approaches to land management and protection: problems and creative solutions", TIIAME, Tashkent, Uzbekistan	Event-based, web- based	May, 2019
6	Erasmus+ DSinGIS Awareness building seminar, KSU, Nukus, Uzbekistan	Event/web-based	May, 2019
7	International Assembly 6th Plenary Meeting of Eurasia-Pacific Uninet, Vienna, Austria	Event/web-based	May, 2019
8	Result of training, TUB, Berlin, Germany	Web-based	Sep., 2019
9	Rectorate meeting, TIIAME, Tashkent, Uzbekistan	Event-based	Sep., 2019



Dissemination Plan for 2018-2019 years (cont.)

Nº	Dissemination event	Dissemination method	Period
10	GI Conference, SamSACEI, Samarkand, Uzbekistan	Event-based, web- based, traditional	Oct., 2019
11	Presentation about project and its achievements, seminar for the students, TIIAME, Tashkent, Uzbekistan	Event-based, web-based	Nov., 2019
12	Scientific committee meeting, TIIAME, Tashkent, Uzbekistan	Event-based	Nov., 2019
13	International GIS day, TIIAME, Tashkent, Uzbekistan	Event-based, web- based, traditional	Nov., 2019
14	Information about project achievements on Scientific and technical journal "Sustainable agriculture"	Traditional	Dec., 2019
15	Information about project related events, achievements, materials etc. on the web of: - Erasmus+ DSinGIS project (http://geoinformatics.uz/dsingis/, http://dsingis.eu); - TIIAME (http://tiiame.uz); - Social media and channels (http://facebook.com, http://telegram.org); - mass media (http://kun.uz, http://uza.uz, http://uzbekistan24.uz, http://daryo.uz)	Web-based	Regularly



Dissemination Plan for 2020 year

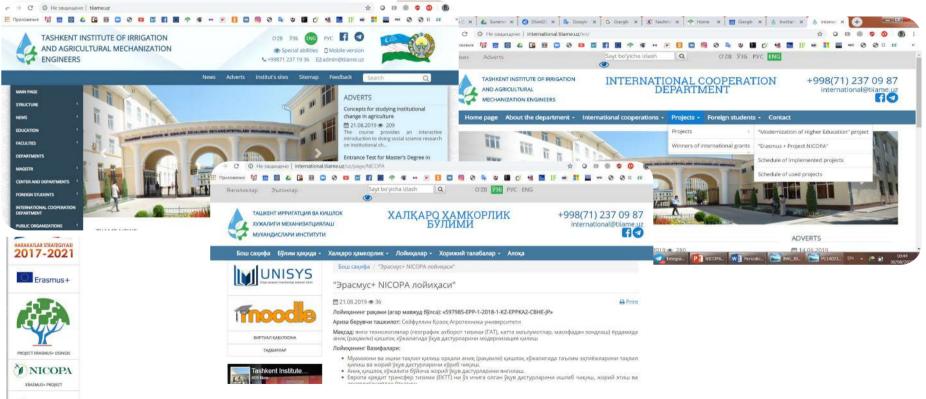
Nº	Dissemination event	Dissemination method	Period
1	Coordination meeting with Uzbek partner universities, TUIT, Tashkent, Uzbekistan	Event-based	March
2	International Earth Day, TIIAME, Tashkent, Uzbekistan	Event-based, web-based	April
3	Annual Republican XIX practical-scientific conference of young scientists, MSc and BSc students on topic "Modern problems of agriculture and water resources", TIIAME, Tashkent, Uzbekistan	Event-based, web-based	May
4	International GIS in Central Asia Conference – GISCA 2020 InterCarto.InterGIS 2020, DSinGIS GI 2020 Conference, TIIAME, Tashkent, Uzbekistan	Event-based, web-based	June
5	Result of Summer School, Czech University of Life Sciences Prague, Czech Republic	Web-based	July
6	Presentation about project and its achievements, seminar for the students, TIIAME, Tashkent, Uzbekistan	Event-based, web-based	September
7	Result of training, Agricultural University of Plovdiv, Bulgaria	Event-based, web-based	October
8	Erasmus+ Info Day	Event-based, web-based	October
9	International GIS day, TIIAME, Tashkent, Uzbekistan	Event-based, web-based, traditional	November
10	Information about project achievements on Scientific and technical journal "Sustainable agriculture"	Traditional	December
11	Information about project related events, achievements, materials etc. on the web of: - Erasmus+ DSinGIS project (http://geoinformatics.uz/dsingis/, http://dsingis.eu); - TIIAME (http://tiiame.uz); - Social media and channels (http://facebook.com, http://telegram.org); - mass media (http://kun.uz, http://uza.uz, http://uzbekistan24.uz, http://daryo.uz)	Web-based	Regularly



Dissemination Plan for 2021 year

Nº	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: - Erasmus+ DSinGIS project (http://geoinformatics.uz/dsingis/, http://dsingis.eu); - TIIAME (http://tiiame.uz); - Social media and channels (http://facebook.com, http://telegram.org); - mass media (http://kun.uz, http://uza.uz, http://uzbekistan24.uz, http://daryo.uz)	Web-based	Regularly





A link to TIIAME website, where we posted information about the participation in the project and a link to the project webpage: http://international.tiiame.uz/oz/page/NICOPA







Regional Meeting with UZ Partner Universities was held at NUU on November 20, 2018, Tashkent, Uzbekistan.





Kick off meeting of the Erasmus+ NICOPA project was held at TUB on March 3-4, 2019, Berlin, Germany.







Field monitoring meeting of the Erasmus+ NICOPA project was held at NUU on May 2, 2019, Tashkent, Uzbekistan.







Presentation of the Project NICoPA by Mr.M.Reimov during Dissemination event of Erasmus+ DSinGIS: Doctoral Studies in Geoinformation Sciences" was held at Karakalpak State University on May 4, 2019, Nukus, Karakalpakstan, Uzbekistan.





Presentation of the Project NICoPA by Mr.M.Reimov during conference dedicated to "22 April - International Earth Day" on April 21, 2019 at TIIAME, Tashkent, Uzbekistan.







Presentation of the Project NICoPA by I.Abdurahmanov during the dissemination event on "The tasks carried out within the framework of the Erasmus+ DSinGIS project" was held at Samarkand State Architecture and Civil Engineering Institute named after Mirzo Ulugbek on April 9, 2019, Samarkand, Uzbekistan.







Presentation of the Project NICoPA by I.Abdurahmanov during the 6th Plenary Meeting of Eurasia-Pacific Uninet on May 17, 2019, Vienna, Austria.







Discussion of the Field monitoring meeting results of the Project NICoPA on August 4, 2019, NUU, Tashkent, Uzbekistan.







Training within the Erasmus+ NICOPA project was held at TUB on August 17-31, 2019, Berlin, Germany.







Presentation Erasmus+ NICOPA project on the Exhibition during the Erasmus+ Info day held at Tashkent State Technical University on October 4, 2019, Tashkent, Uzbekistan.





Regional Meeting with UZ Partner Universities was held at TUIT on November, 2019, Tashkent, Uzbekistan.



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

- 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.
- 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.
- Information on the conduct of elections in accordance with the "Regulations on the procedure for hiring teachers in higher education institutions".
- Information on the review of documents of pedagogical staff applying for a degree and recommendation for a degree
- 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

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

Email: admin@tilame.uz Phone: +998712371909, Fax: +998712373879





Тошкент ирригация ва кишлок хўжалигини механизациялаш мухаидислари иститути Илмий Кенгаш аьзолари йнгилишининг 2019-2020 ўкув йнлидаги

5 - Илмий Кенгаш йнгилишининг МАЖЛИС БАЁНИ

2019 йил 28 новбрь

Тошкент ш

Қатнандилар: Илмий Кенгашинг 53 аьзоси ва таклиф этилганлар (р§йхат илова қилинади).

6. ТУРЛИ МАСАЛАЛАР

Ранс Б.Мирзаев — Кун тартибидаги 6-масала бўйнча, явин турли масалалар тўгрисида мавлумот бериш учун сўз Илмий котиб Юлчнев Давроибек Гуламовичга, мархамат.

6.20. ЭШИТИЛЛИ:

Ранс Б.Мирызев — Кун тартибила курсатыктан барча масалазар куриб булинди. Энди навбатдан ташкари битта масала институтда Егапши» "DSinGIS" ва "NICOPA" калкаро лойикалар буйнча эришилган натикалар тутрискда кисобот бериш үчүн сул, Теоинформатика" вуналиши 1-боскич тавич докторанти Абдурахмонов Илхом Исаковичта, маркамат.

Н.Абдурахмонов — Институтда Erasmus+ "DSinGIS" ва "NICOPA" халкаро лойихалар бўйнча эришилган натижалар тўгрисида хисобот берди. (Хисобот матин илова килинади).

інча эришилган натижалар тўгрисида хисобот берди. (Хисобот матни илова қилинади).
Ранс Б.Мирзаев – Кўрилган масала юзасидан кимда қандай саволлар бор? Мархамат.

А.Раджабов - Институтда зобиха допрасида тапижи этилаеттая "GISCA 2020" Scopus базасита киритилган калкаро конференциясита маколаларии топшириш талабларини каердан олсак бўзади, маколаларии рус тилида кам топширса бўзаднай?

И.Абдурахмонов – 2020 Вил шонь обида институт гомонидав Егапшы+ DSingEl лойикаси допрасида Австрия-Марканій Осне GAT Маркані (ACA*GIScience) хамка Венгрикдаги Обиа Ушин Обиа Ушин Сама Венгрикдаги Обиа Ушин Сама Бенгрикдаги Обиа Ушин Сама Бенгрикдаги Сама Бенгрикдаги Киринаган каринаган халкаро конференциясига маколаларии топширии талаби институтинит веб-сайтига коблаширийхтви Максолаларии топширии талаби институтинат веб-сайтига коблаширийхтви Максолаларии обиа Венгриктан Максолаларии топширии талаби институтинат веб-сайтига коблаширийхтви Максолаларии обиа Венгриктан Сама Кабул мынивали.

Ранс Б.Мирзаев — Макрузачиларга яна саволлар борын? Бошка саволлар бўлмаса, карор кисмини тасликлаб беришларингизин сўрайман. Каршилар — йўк, бетарафлар — йўк. Рахмат.

6.20. КАРОР КИЛИНДИ:

 Теониформатика" п§налиция 1-боские тавич докторанти И.Абдурахмоновинит-Институтда Егапиц» "DSinGIS ва "NICOPA" халкаро лобицкалари буйнча эришилган натижалар тўтрисида берган жисоботи ахборот учун кабул килинеция.









Presentation about the Project NICoPA done by Ilhom Abdurahmanov during the indroduction meeting with the staff and students at the Obuda University on February 18, 2020



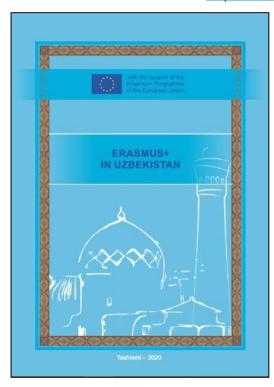


Coordination meeting with Uzbek partner universities, TUIT, Tashkent, Uzbekistan, 04 March, 2020



• 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



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 Uzbekistam".

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-cooperationa/active-projects/2757-talent-project, https://youtub.en/71W3bRawVA).

In conclusion, the project results will serve to satisfy public and civil organizations with qualified HK managers scon. 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 Sterenhart, Elena Engorni
Abdumanap Nosirovi, Komii Tashevi, Temurbek Kuchkorovi, Ilhom
Abdumanap Nosirovi, Komii Tashevi, Temurbek Kuchkorovi, Ilhom

¹ Technische Universität Berlin (TUB), Berlin, Germany, ²Tashkent University of Information Technologies (TUIT), Tashkent, Uzbekistan.

³National University of Uzbekistan (NUU), Tashkent, Uzbekistan, ⁴Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Tashkent, Uzbekistan

*Corresponding author: 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 pager.

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 cademic 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

Prospective BSc and MSc students will study on modern curriculum which is developed in collaboration with highly experienced European partner universities (Ecchnical 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.

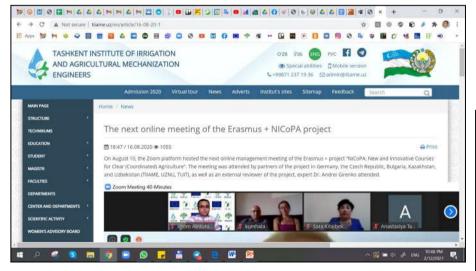
References

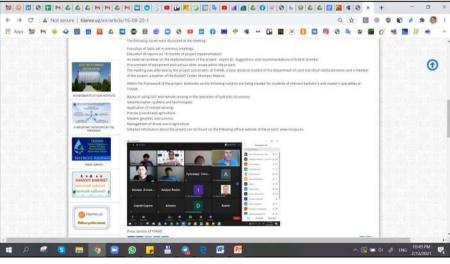
- Erasmus+ CBHE Project "DSinGIS: Doctoral Studies in Geoinformation Sciences" (http://www.dsingis.eu/), http://www.dsingis.eu/.
- 2. Erasmus+ CBHE Project "Environmental Protection In Central Asia (EPCA): Disaster Risk Management With Spatial Methods", http://www.eu-enca.eu/.
- Frasmus+ CBHE Project "NICoPA: New and Innovative courses for Precision Agriculture", http://www.nicopa.eu/.

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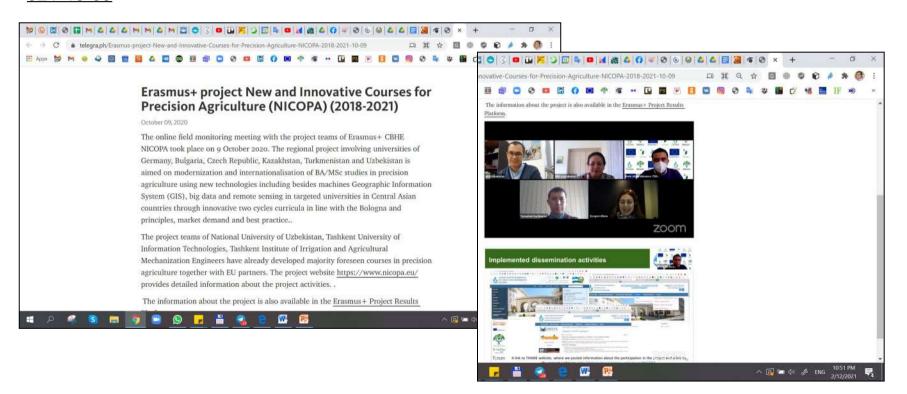
http://tiiame.uz/en/article/16-08-20-1







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





'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

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

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).

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

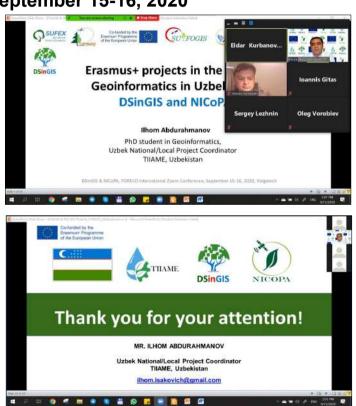
Contact to GISCA coordinator (Austria):

Academician Prof. Josef Strobl, Josef Strobl@sbg.ac.at Department of Geoinformatics, University of Salzburg & GIScience Commission of the Austrian Academy of Sciences



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









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

Daine Chintenna Vincente Co.



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.usf/81960206603

MEETING AGENDA

14:30-14:40	Opening speech	International Relations of NUU
14:40-14:50	Objectives of the Advisory Monitoring visit	Aziza Abdurakhmanova, NEO coordinator 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, 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 Kudratkhon Bakhadirov, NEO expert







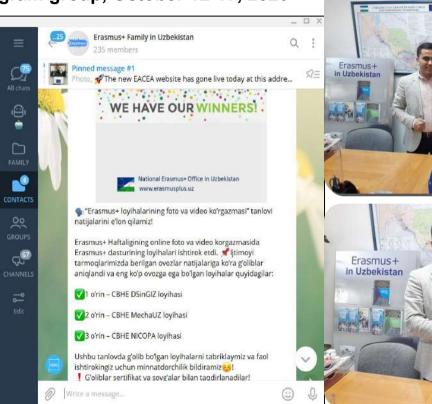
Advisory monitoring meeting (Online)
9 October 2020 at 14.30 (Tashkent time)

Organisation	Name, surname, position, email of authorized representative. Raima Shirinova, Vice-rector for International Relations of NUU rabrirova@mun.uz Abdumanep Nastrov, Associate professor, National coordinator, annaurov196/@mail.u Ilkhomjon Abdulaev, Senior Lecturer, Local Manager, ilkhomjon abdulaev@mail.com Pavel Parchinskiy, Associate professor, project member, pavejphy@mail.ru Anizjon Runiev, Senior Lecturer, project member, announcess@mail.com Andrey Nebesny, Blogger of the project, nucleasive, and propensy, and propensy, and propensy, and propensy, and programments.	
National University of Uzbekistan		
Tashkent University of Information Technologies	Temurbel: Kuchicrov, Associate professor, Local coordinator timanat/w@gmail.com Zamira Allemuratova, Lecturer, project member, zamira/4@mail.ru Mexriddin Raximov, Associate professor, project member, raximov/27/@gmail.com Nozima Atadjanova, Teacher assistant, project member, nocimanat/signova/@email.com	
Tashkent Institute of Irrigation and Agricultural Mechanization Engineers	Ilhom Abdurahmanov, Researcher, Local Coordinator, thrun isakonich@mail.com Mamanbek Tennov, Researcher, Local Manager, mamma1990@mail.rom Zekhid Mamantulov, Researcher, project member, zohid3093@mail.com Ilhomjon Aslanov, Assatant Professor, project member, dibonaslanov@mail.com	
EXOLAUNCH GmbH	Anastasiya Tatarintseva, Project Manager	
S. Seifullin KATU, Kazakhstan	Sara Kitaibekova, Project coordinator, saraorazbek@mail.ru	
National Erasmus+ Office (NEO) in Uzbekistan	Asiza Abdurukhmanova, NEO coordinator, <u>coordinator@erasmusplus.uz</u> Rudratkon Bakhadirov, NEO expert, <u>expert@erasmusplus.uz</u> Gulshoda Karibaeva, NEO project manager, neo@erasmusplus.uz	



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





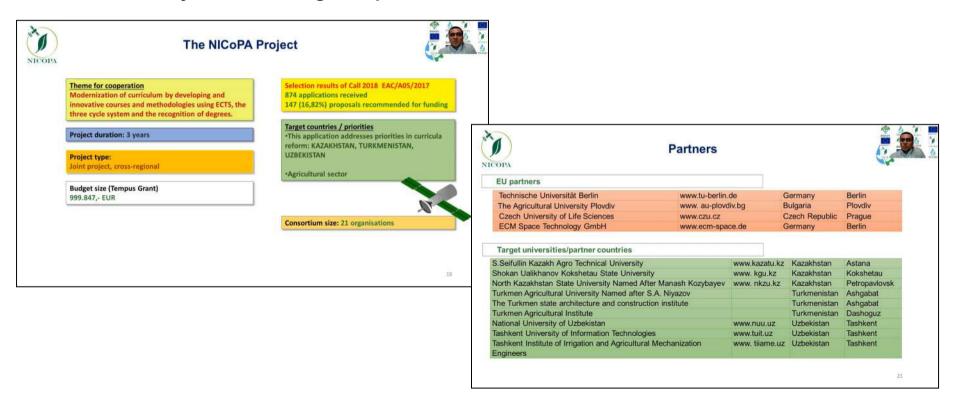


ANNUAL INTERNATIONAL SCIENTIFIC CONFERENCE ON GEOINFORMATICS – GI 2021 "Supporting sustainable development by GIST", Online/onsite, January 27-29, 2021





Online lecture on Glscience - Teaching and Learning for the MSc students of the University of Vienna, Austria by Sabine Hennig, 14 April, 2021





GIS in Central Asia – GISCA 2022 and Geoinformatics – GI 2022

ANNUAL INTERNATIONAL SCIENTIFIC CONFERENCES on
"Designing the geospatial ecosystem", and
INTERNATIONAL SYMPOSIUM on
"Principal areas of land reform strategy: problems and solutions",
NRU "TIIAME", ONLINE/ONSITE, 23-24 May, 2022

- more than 400 participants;
- including 75 foreigners;
- number of research papers submitted 114;
- number of research papers accepted for publication- 60;
- will be published in the Journal indexed in the Scopus international bibliographic and abstract database in November, 2022;
- 10 memorandum of understandings were signed between the partners.



GIS in Central Asia - GISCA 2022 and Geoinformatics - GI 2022





GIS in Central Asia – GISCA 2022 and Geoinformatics – GI 2022











PROGRAM

GIS in Central Asia - GISCA 2022 and Geoinformatics - GI 2022 ANNUAL INTERNATIONAL SCIENTIFIC CONFERENCES on "Designing the geospatial ecosystem"

INTERNATIONAL SYMPOSIUM

on "Principal areas of land reform strategy: problems and solutions"

23-24 May, 2022

National Research University "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers" (NRU "THAME"). Tashkent, Uzbekistan.

ONLINE/ONSITE

Address: Academic Council Hall, NRU "THAME", str Kari Niyaziy, 39, Tashkent

Conference languages: English, Uzbek, Russian (with simultaneous translation)

Conference platform (for online participants):

Zoom https://us06web.zoom.us/j/81484518875

ID: 814 8451 8875, password: 122454





























Other publication materials:

http://www.erasmusplus.uz/news/161.htm

http://www.erasmusplus.uz/Information-about-the-projects/Erasmus-plus/4-call/index.htm

http://tiiame.uz/oz/article/deuch

http://uzbekistan24.uz/uzk/yangiliklar/11/8904/

https://kun.uz/news/2019/03/09/ozbekiston-otm-germaniya-universitetlari-bilan-hamkorlikni-kuchaytirmoqda

https://daryo.uz/2019/03/07/ozbekiston-milliy-universiteti-nicopa-aniq-qishloq-xojaligida-yangi-va-innovatsion-kurslar-loyihasi-uchrashu

vida-qatnashdi/

http://uza.uz/oz/society/berlinda-zmu-mutakhassislari-ishtirokida-isti-bolli-loyi-a-a-06-03-2019

http://geoinformatics.uz/dsingis/2019/04/10/awarenness2/

http://geoinformatics.uz/dsingis/2019/05/05/awarenness3/

http://tiiame.uz/article/31-09-19-1

https://uza.uz/uz/posts/geofazoviy-ekotizimni-loyihalash-mavzusida-xalqaro-ilmiy-konferenciya-tashkil-etildi_374865

https://tiiame.uz/en/content/prestigious-international-conference

Project activities & results WP5 Management



Cooperation Agreement

Precision Agriculture"

Parties to the Agreement

NICOPA University - Enterprise

"New and Innovative Courses for

referred to as "University" on the one hand

Mechanization Engineers (TIIAME),

This is a cooperation Agreement among the

consortium members of "NICOPA", hereinafter

Tashkent Institute of Irrigation and Agricultural

Kary Niyaziy, 39. Tashkent 100000 Uzbekistan

Cooperation Agreemen "NICOPA University-Enterprise"

NICoPA+ Agreements

- 6 (six)NICoPA+ agreements have been signed so far with the following nonacademic stakeholders:
- "Azimut GEO" LLC:
- "GEO EXPERTS" LLC:
- "GRAND-PERFECT-PROJECT" LLC:
- "Development Experts" LLC;
- "Innovations and Scientific Research Cluster":
- "GEOINFORM ENGINEERS GROUP" LLC

COLTAMEHRE "NICOPA University-Enterprise" No 2020-02/42

Соглашение "NICOPA University - Enterprise"

Новые и инновационные программы по точному сельскому хозяйству"

Стороны Соглашения

роекта "NICOPA", именуемым в дальнейшем referred to as "University" on the one hand "Университет", с одной стороны

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

неакадемической организацией

"Кластер инноваций и научных исследований по устойчивому развитию". Республика Узбекистан, 100000, г. Тацкинт. . Коры Ниёзий 39

Cooperation Agreement "NICOPA University-Enterprise"

Cooperation Agreement "NICOPA University - Enterprise"

"New and Innovative Courses for Precision Agriculture"

Parties to the Agreement

Настоящее Cornaшение заключено между This is a cooperation Agreement among the Университетом - участником консорциума consortium members of "NICOPA", hereinafter

> Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME). str. Kary Niyaziv. 39. Tashkent 100000

and a non-academic organization

"Innovations and Scientific Research Cluster". str. Kori Nivoziy, 39, Tashkent 100000. Republic of Uzbekistan

Cooperation Agreement "NICOPA University-Enterprise"

Cooperation Agreement NICOPA University - Enterprise"

"New and Innovative Courses for Precision Agriculture"

Parties to the Agreement

Development Experts" LLC.

Cooperation Agreement

"NICOPA University - Enterprise"

"New and Innovative Courses for Precision

This is a cooperation Agreement among the

consortium members of "NICOPA", hereinafter

Tashkent Institute of Irrigation and Agricultura

referred to as "University" on the one hand

Izbekistan

Agriculture"

Parties to the Agreement

unusabad-12, 11/27, Tashkent 100000

This is a cooperation Agreement among the consortium members of "NICOPA", hereinafter eferred to as "University" on the one hand

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

Cooperation Agreement

"NICOPA University-Enterprise"

and a non-academic organization and a non-academic organization

> "GEOINFORM ENGINEERS GROUP" LLC. Yashnaobod, Street Parkent, 6, Tashkent,

СОГЛАШЕНИЕ "NICOPA University-Enterprise"

No 2019 -02/192

Соглашение "NICOPA University - Enterprise"

"Новые и инновационные программы по точному сельскому хозяйству"

Стороны Соглашения

проекта "NICOPA", именуемым в дальнейшем referred to as "University" on the one hand "Университет", с одной стороны

Ташкентский институт инженеров ирригации и механизации сельского хозяйства (ТИИИМСХ),

Республика Узбекистан, 100000, г. Ташкент, ул. Коры Нивзий, 39

и неакадемической организацией

"GEO EXPERTS" OOO,

Республика Узбекистан, 100000, г. Ташкент, ул. Шарк, квартал-1, 1/3

Cooperation Agreement "NICOPA University-Enterprise"

Cooperation Agreement "NICOPA University - Enterprise"

"New and Innovative Courses for Precision Agriculture"

Parties to the Agreement

Настоящее Соглашение заключено между This is a cooperation Agreement among the Университетом - участником консорциума consortium members of "NICOPA", hereinafter

> Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIIAME). str. Kary Nivaziy, 39, Tashkent 100000,

and a non-academic organization

Uzbekistan

"GEO EXPERTS" LLC. str. Shark, block-1, 1/3, Tashkent 100000 Mechanization Engineers (TIIAME). str. Kary Niyaziy, 39, Tashkent 100000. Uzhekistan

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'

"New and Innovative Courses for Precision Agriculture"

Parties to the Agreement

This is a cooperation Agreement among th 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, Uzhekistan

and a non-academic organization

"GRAND-PERFECT-PROJECT" LLC, str. Farnux, 4/22, Tashkent 100000, Uzbekistan

Project activities & results WP5 Management



4 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;
- Agricultural University of Plovdiv, Bulgaria.

Project activities & results WP5 Management



The Regulation of the PASO

1 МОГО ПОСТИЙ ВИСТИТУТ ИНБИЕНЕГОВ ПРЕПГАЦИВ И МЕХАНИЗАЦИИ СТ.Л. СКОГО ХОВИСТВА



TIO TOSKETHE

OF OPPICE HO ROQUEPAKE II PACTIFOCTPAHEIDIIO 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)

Parpafortano в рамках реализации проекта Erasmus+ 597985-EPP-1-2018-1-КZ-EPPК2-CBHE-JP «Now and Innovative Courses for Precision Agriculture (NICoPA)»

Tamacur - 2019

1. ОБШИЕ ПОЛОЖЕНИЯ

1.1. Нестояваее Положение является внугренним пормативным документом Ташкентского инспитута инженероз прригадция и механизации сельского мозяйства (далее Иметитут) и определяет цели, задачи, функции и деятельность Офиса услуг и знаний по точному сельскому хозяйству obrecision Agriculture Service Offices (PASO).

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

РАЅО является структурным подразделением кафедры «Геодезия геоннформатика» факультета "Управление эсмедывыми ресурсами" Института.

PASO в своей деятельности руководствуется:

- Законами Республики Узбекистан.
- Положением вофедры «Геодезия и геониформатика»;
- Настоящим положением.

1.3. РАЅО проводит работы, связанные с глубоким осноением учебных материалов и знаний, создависмых в рамках гроскта и обновлением содержания учебных дисциплии в области точного сельского хозяйства в соответствии с последними достижениями в данной сфере.

1.4. Руководитель офиса:

- руководит всей деятельностью PASO;
- нееет персональную ответсвенность за своевремменное и качественное выполнение возложенных на офис задач и функций;
- участвует в перепективном и текущем плавировании деятельности офиса.
 Руководитель офиса имеет право годинси документов по вопросви деятельности офиса, входящих в сто компетенцию.

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

2. СТРАТЕГИЧЕСКАЯ ЗАЛАЧА РАЅО

Содать условия для развития результетов проекта после его завершения и способствовать поступлению финансовых средств для гоздержания и развития созданной проектом дебораторной базы.

3. ОСНОВНЫЕ ЗАДАЧИ РАЅО

- 3.1. Маркетинг потребностей в области повышения эффективности сельского хозяйствя (повышения урожайности) и синжения предного воздействия агретехнологий на окружающую среду и разработка соответствующих услуг и сервисов для различных заингерссованных педеам групп.
- Разработка и внедрение учебных курсов и/или повышения квалификации различных целевых групп.
 - 3.3. Маркетинг образовательных услуг,
 - Сервис для фермерских ассоцианий и изучение требований работадателей.
- Изучение соответствия компетенций/навыков выпускников требованиям работадателей, информационная поддержка.
- Периодическое проведение аудита Института на существующих учебных курсах с нелью замены/обисаления устаревших учебных программ и разработка новых.
- Изучение потребностей промышленных предприятий в сервислом обучении персонала.
 - Поиск заинтересованных организаций и спонсоров.
- 3.9. Модернизация устаревного сельскохозяйственного оборудования для сенащения старой техники датчиками, системами навигация для удучитения работы.

4. ОСПОВИБІЕ ФУНКЦИИ РАЅО

В соответении е воздоженными на исто задачами PASO осуществляет следующие функции:

- 4.1. Соотрудничество с выслими образовательными учреждениями, сведивличнурумними в подготнове вадрон в области сельского холайства, изучение и решение реальных залач этой сферы и впедрение в учебный процесе получениях режизьтатов.
- Ратработка и проведение мероприятий по подготовке и повышению квадификации в предметной (академической) области факультета.
 - 4.3. Ооганизация тренцигов, семиналов, конференций,
- Повышение информированности целеных групп путем освещения о результатах гобот в средствах массовой информации.
- 4.5. Выявление и освоение технических новыеств, научных открытий и плобретений, негродового опита, способствующих удучшению по подготовке и повышению укалификации для соттудинов РАУО.
- Анализ, повек, привлечение источников финансирования деятельности.
 Осмисствление в соответствие с законадательством Республики Узбекистви.
- Осуществление в соответствие с законадательством Респуолики узоскистан работы по комплектовлино, хранению, учету и использованию архивных документов, образовавшихся в ходе деятельности РАЗО.
- Организация инженерно-технических работ по запросу/заказу завитересованных лиц/организаций.
- 4.9. Возпожение на РАЅО функций, не относящихся к компетенции PASO, не допускается.

5. IIPABA PASO

- Создавать экспертные и рабочие группы по вопросам улучшения и контроля курсов обучения и/или повышения квалификации различных пелевых групп.
- Проводить в пределах своей компетенции в установленном порядке переговоры со егоровними организациями, подписывать договора.
- Успаньзовать средства, выделяемые на финансирование развития учебных программ университета по подготовке специалиетов, переквалификации и повышении квалификации кадров.
- Б.4. Виосить предложения по вопросам, входящим в компетенцию PASO, в виде простои.
- 5.5. Запрацивать и подучать от руководства Института, кафедр и других структурных подроделений информацию, необходимую для выполнения возложенных на него задач и функций.

6. ОТВЕТСТВЕННОСТЬ РУКОВОДИТЕЛЯ PASO

- Вею подноту ответственности за качество и своевременность выполнения воздоженных настоящим Положением на PASO задач и функций несет Руководитель PASO.
- Степень ответственности других работников устанавливается должностными инструкциями.
- 6.3. Руководитель и другие сотрудники PASO несут персональную ответственность, зоответствее оформляемых ими документов и операций с корреспонденнией законадательству Республики Узбежстви.
- 6.4. Ведение документации, предусмотренной действующей пормативно-празовой базой.

Разриботопо на основе Положению PASO Concept (www.nicopa.eu) членами рабочей группы провета NICOPA: Абдурахминов И.И., Решина М.П., Ж.Ниёзов.

Координатор проекта



Аблугахманов И.И.



Project activities & results WP5 Management



Coordination meetings









Thank you for your attention!



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