

"Modernization of Higher Education" project

Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan

"Modernization of Higher Education" project

Academic Innovation Fund

Project title

Enhancement of agricultural engineering programs by using innovative techniques employed in foreign universities.

The role of agricultural mechanization

Agricultural production is based on two main areas: crop production and livestock farming. Crop production is based on the cultivation of plants and the use of soil as a living and nutritional environment for these plants. Livestock production is based on growing animals, using their vital functions. Livestock are mainly linked to land and soil quality, via feed production. From the earliest times, manual labor has been central in production of agricultural products.

The mechanization of agriculture relieves a person from hard, labor-intensive and tedious work, increases labor productivity, reduces the time required for completing work, contributes to increase the area occupied by agricultural crops, to timely implementation of agrotechnical and melioration activities, and reduces production costs. Mechanization of agriculture is linked with the process of increasing of agricultural production culture – using latest achievements of science and technology, implementing advance technologies, the further intensification of agriculture by implementation of large works on land reclamation and chemicalization of agricultural production.

According to the US National Academy of Engineering, agricultural mechanization was ranked 7th in the top twenty most important engineering achievements of twentieth century, ahead of computers, telephone communications and space rockets. Agricultural mechanization has played a crucial role in achieving impressive success in development of agricultural production in second half of the 20th century.

The need to increase crop yields, the negative impact to the environment, increasing of carbon fuels cost, the development of remote sensing and electronic systems and their widespread use in tractors, combines and other agricultural machines, the emergence of unmanned aerial vehicles began to change the direction of traditional agricultural mechanization.

Agricultural mechanization in the 21st century must be environmentally friendly, economically viable, accessible and adapted to local conditions. Here a special requirement is presented to specialists of agricultural mechanization field.

Goal of the project

- improvement of existing curricula and programs in undergraduate agricultural mechanization major, introduction of new courses into curriculum;
- supporting the curriculum in new major Application innovative techniques and technologies in agriculture by introducing innovative methods and courses used in foreign universities;
- Facilitating the growth of potential and quality of teaching staff;

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- Activate student participation and role in the learning process.

Project performers

- Departments of faculty of agriculture mechanization and foreign partners;
- Project Coordinator: Vice rector for academic affairs Mirzaev B.S.
- Technical Coordinator: Head of the Department of Tractors and Automobiles Amonov M.O.

Duration of the project

- 2 years (March 2019 - February 2021)

Foreign partners of the project

- University of California at Devis, USA <https://www.ucdavis.edu>
- Oklahoma State University, USA <https://go.okstate.edu>
- Seoul National University, South Korea <http://www.useoul.edu>
- Mississippi State University, USA <https://www.msstate.edu>

During project implementation

Will be created:

- Foresight group to analyze the current state and forecast future in preparation agricultural engineers under agricultural mechanization programs
- a modern computer class connected to the Internet.

Will be improved:

- curriculums of the major Agricultural mechanization and Application innovative techniques and technologies in agriculture.

For faculty and graduate students will be organized:

- three-level English language courses;
- courses on using MS Power Point, Excel programs and about basics of preparing presentation materials;
- seminars on new courses with participation of foreign partners.

Will be purchased:

- laboratory stands for some of existing and new courses;
- a software program for teaching hydraulic and electrical systems of tractors and agricultural machines

Will be activated:

- students role in learning process and work of students clubs;
- collaboration with JSC "Uzagrotexsanoatxolding" and "Uzagroservice", JV "Uzcaseservis" and LLS

"Uzclaasservis".

The faculty will get support on:

- publishing research results in Scopus magazines;
- upgrading teaching materials of the courses.

Project News

7.03.2019

Signed grant agreement

On March 6, 2019, a grant agreement was signed between the Ministry of higher and secondary specialized education of the Republic of Uzbekistan and TIAME on financing the project through the Academic Innovations Fund.

4.04.2019

Started project "Enhancement of agricultural engineering programs by using innovative techniques employed in foreign universities". <http://tiame.uz/uz/article/04-04-19>

4.04.2019

About English language course

The registration of teachers for English courses organized with the support of project has begun. Interested teachers that teaching courses to students of Agricultural mechanization faculty are requested to register for courses at the project office, interviews with candidates for the above courses will be held on April 6 from 10.00 in room B-311.

Project announcement

18.03.2019

Competition for the organization and training in English courses (request for expressions of interest)

The project intends to use part of the funds for the services of organization/company or consultant-teacher on teaching of three-level English language courses for faculty and graduate students.

The project should ask candidates, organizations/companies or consultants who express an interest in participating in the tender for the above services to send (deliver) their proposal (package of documents) to the project office in a sealed envelope until April 2, 2019.

The package of documents should include:

For organizations/companies:

- information about the organization (charter, activities of the organization, previous experience in organizing English language courses, plans for conducting courses)
- information about teachers who will teach the courses (CV, copies of diplomas and certificates, plans for the courses)

For individual teacher-consultants:

- information about teacher-consultant who will teach the courses (previous experience in organizing English language courses, CV, copies of diplomas and certificates, plans for conducting courses)

Sample schedule and plan of the courses are shown below

Background information for organization of English language courses for faculty members and graduate students of Agricultural Mechanization faculty of TIIAME under the project "Enhancement of agricultural engineering programs by using innovative techniques employed in foreign universities"
Academic Innovation Fund

I. SAMPLE SCHEDULE OF EDUCATIONAL PROCESS

Course level	Weeks																																												
	April				May				June				July				August				September			October			November			December															
	1-6	8-13	15-20	22-27	29-4	6-11	13-18	20-25	27-1	3-8	10-15	17-22	24-29	1-6	8-13	15-20	22-27	29-3	5-10	12-17	19-24	26-31	2-7	9-14	16-21	23-28	30-5	7-12	14-19	21-26	28-2	4-9	11-16	18-23	25-30	2-7	9-14	16-21	23-28						
I	P	T	T	T	T	T	T	T	T	T	T	T	T	E																															
II																	P	T	T	T	T	E																							
III																										P	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	E			

T Training P Preparation week E Exam

II. SAMPLE PLAN OF CONDUCTING CLASSES

No	Course level	Place	Number of group	Max number of students in the group	Total load, h	Classroom load, h	Weekly load, h	Number of teaching week	Beginning	End	Self-study, h
1	Beginner	TIIAME	2	18	128	96	8	12	8.04.2019	29.06.2019	32
2	Elementary (intensive)	TIIAME or other place	1	18	128	96	24	4	29.07.2019	24.08.2019	32
3	Pre-intermediate	TIIAME	1	18	128	96	8	12	23.09.2019	14.12.2019	32
	TOTAL				384	288					96

20.03.2019

Competition for the position of assistant technical coordinator (request for expressions of interest)

The project intends to use part of the funds for the services of a consultant to work as an assistant technical coordinator of the project. Candidate for the position above must

- have at least a bachelor's degree in one of the technical major
- know the current state and tendency in the development of agricultural mechanization,
- have work experience in the specialty,
- be familiar with undergraduate curricula,
- be good in English and Russian.

The project asks candidates who express an interest in participating in the competition for the above services to send (deliver) their documents (CV, copies of passports, diplomas and certificates) to the project office by April 30, 2019.

Interested candidates may receive additional information by phone or at the project office.

4.04.2019

English language courses under project "Enhancement of agricultural engineering programs by using innovative techniques employed in foreign universities". <http://tiiame.uz/uz/ad/04-04-19-1>

5.04.2019

Started project "Enhancement of agricultural engineering programs by using innovative techniques employed in foreign universities". <http://tiame.uz/uz/ad/5-04-19-11>

5.04.2019

Invitation of faculty members to English courses. <http://tiame.uz/uz/ad/5-04-19-12>

25.04.2019

Defined educational institution for teaching in English language courses.

<http://tiame.uz/uz/ad/25-04-19-13>

25.04.2019

The list of faculty selected for training in English language courses. <http://tiame.uz/uz/ad/25-04-19-14>

Project office address

TIIAME, Educational building B, room B-306, B-310

Tel. 998 71 237 2534

E-mail: aif-agr-eng@tiame.uz