

# DEBSEUZ

## “101128871-DEBSEUZ-ERASMUS-EDU-2023-CBHE DEVELOPMENT OF THE TARGETED EDUCATIONAL PROGRAM FOR BACHELORS IN SOLAR ENERGY IN UZBEKISTAN”



Funded by the  
Erasmus+ Programme  
of the European Union

In the 2023 international competition in the direction of “Higher Education potential enhancement” under the European Union's “Erasmus+” program, Our the National Research University presented together with national and foreign partners “**101128871-DEBSEUZ-ERASMUS-EDU-2023-CBHE Development of the targeted Educational program for Bachelors in Solar Energy in Uzbekistan**” was named the winner.

**The main goal of the project** to develop innovative training plan and programs for professional retraining of bachelors and specialists in the direction of “Solar Energy” in Uzbekistan.

**Project title:** The Development of the targeted Educational program for Bachelors in Solar Energy in Uzbekistan

**Project acronym:** DEBSEUZ

**Project website:** <https://debseuz.showcase.uz/en://debseuz.showcase.uz/en/>

**Project duration:** from 11.01.2023 to 31.10.2026.

**Grant holder:** Tashkent University of Information Technologies (Uzbekistan)

### Partners:

**Italy:** Polytechnic University of Turin (Politecnico Di Torino (POLITO), Italy).

**Portugal:** University of Evora (Universidade De Evora (EVORA), Portugal)

**Spain:** Polytechnic University of Madrid (Universidad Politecnica De Madrid (UPM), Spain)

**Uzbekistan:** The National Research University “TIAME”, Turin Polytechnic University in Tashkent, Jizzakh Polytechnic Institute, Fergana Polytechnic Institute, Andijan State University, Karakalpak State University named after Berdakh and the Ministry of Higher Education, Science and innovation participate.

Within the framework of this project, 12 new scientific programs for undergraduate studies will be created, based on the experience of professors from European universities, as well as an innovation laboratory in universities of the Republic of Uzbekistan, annual scientific and practical conferences are held under the project and 69 professors, teachers and specialists are interned at advanced partner universities in Europe.

### Overall project results:

- development and improvement of training standards and educational programs in the field of solar energy, as well as methods of maintenance and operation of solar energy systems based on the experience of European universities;
- development of educational programs for undergraduate students and methods of teaching subjects in the field of solar energy based on internationally recognized standards;

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- development of curricula and methods of teaching subjects in the field of maintenance and operation of solar energy systems;
  - development of training courses for the training, advanced training and retraining of specialized specialists in solar energy;
  - development of educational and methodological materials for training courses in the field of solar energy, as well as guidelines for the maintenance and operation of solar energy systems based on the exchange of experience between professors and specialists from European universities and the company;
  - experimental approbation, adaptation and practical application of the developed educational programs, materials and methods in the educational processes of universities of the Republic of Uzbekistan;
  - development and publication of didactic materials and relevant teaching materials for the practical development of solar energy courses;
  - creation of a training center, including a coworking center for students, operating on the basis of newly created laboratories, as well as providing training, advanced training and retraining courses for energy specialists in the field of solar energy;
  - wide involvement of women, the unemployed and socially vulnerable segments of the population for training in courses according to the developed programs of the project.

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<b>Project title</b>	<b>University Coordinator EC / UZ</b>	<b>Project partners</b>	<b>Purpose of the project</b>	<b>Total budget (Euro)</b>
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DEBSEUz- Development of the targeted Educational program for Bachelors in Solar Energy in Uzbekistan	Tashkent University of Information Technologies (coordinator, Uzbekistan)	<p>Politecnico Di Torino (POLITO), Italy;</p> <p>Universidade De Evora (EVORA), Portugal;</p> <p>Universidad Politecnica De Madrid (UPM), Spain;</p> <p>TIIAME National Research University ("TIIAME" NRU), Uzbekistan;</p> <p>Turin Polytechnic University in Tashkent (TTPU), Uzbekistan;</p> <p>Jizzakh Polytechnic Institute (JIZPI), Uzbekistan;</p> <p>Ferghana Polytechnic Institute (FerPI), Uzbekistan;</p> <p>Andijan State University (ASU), Uzbekistan;</p> <p>Berdakh Karakalpak State University (KSU), Uzbekistan;</p>	<p>The project is aimed at solving the problem of training qualified bachelors and specialists in the field of installation, commissioning, management, operation and maintenance of equipment for solar energy systems and their components in the Republic of Uzbekistan.</p> <p>The main goal of the project is to develop educational programs and curricula for bachelor's degree programs in the field of solar energy.</p> <p>General results of the project:</p> <ul style="list-style-type: none"> <li>- development and improvement of teaching standards, educational programs, bachelor's degree programs and didactic materials, training materials for training in the field of solar energy, as well as maintenance and operation of solar energy systems;</li> <li>- development of training courses for the training, advanced training and retraining of specialized specialists in the field of solar energy;</li> <li>- creation of a training and coworking center for students and specialists.</li> </ul>	676 962,00
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### Expected main results of the project:

- development of 3 ECTS accredited Bachelor's degree programs in renewable energy (on solar energy devices and systems);
- modernization of existing bachelor's degree programs in the field of energy at partner universities of the

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Republic of Uzbekistan;

- development of 12 new Bachelor's degree courses in the field of energy (72 ECTS);
- development of a web platform for posting educational materials and methodological recommendations for practical classes and laboratory work (including books, teaching aids, videos);
- creation of an innovative educational, scientific and practical laboratory equipped with equipment and devices designed for use in a solar energy system;
- organization of a center for cooperation between students and specialists focused on the practical development and implementation of solar energy elements and devices and implementation-oriented theoretical and applied projects;
- creation of a community of experts in the field of electricity supply systems for renewable energy sources, including a community of professors and teachers, as well as university graduates, specialists in the energy sector of the Republic;
- organization of annual scientific and practical conferences, training seminars on solar energy and educational processes related to this field, assistance in publishing the results of experimental and practical research on the Project platform.

The implementation of the DEBSEUZ project at the National Research University "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers", with the support and taking into account the positive experience of European partner universities and the company, will successfully solve the tasks of the Republic of Uzbekistan to ensure reliable, uninterrupted, uninterrupted, sustainable and safe energy supply, contributes to the development of higher education in the process of training and retraining of qualified professors-teachers, specialists-engineers in the field of solar energy at the level of European indicators.