Erasmus + KA2 Cooperation for innovation and the exchange of good practices

Capacity

Building in the field of Higher Education

Proposal:	**ERASMUS-EDU-2023-CBHE-STRAND-2**
Project number N.	**101128871**
Project acronym	**DEBSEUz**
Full title	**Development of the targeted Educational program for Bachelors in Solar Energy in Uzbekistan**
Coordination institution	**Tashkent University of Information Technologies (TUIT)**
Project duration	**01 November 2023 – 31 October 2026**

Local training

T 2.7

WP/ Deliverable: **WP2/T2.7** Planned Date: **23/09/2025** Due Date: **25/09/2025** Nr. pages: **9** Dissemination Level: **Public**	Partner responsible: **TUIT** Person Responsible: **Halimjon Khujamatov** Author: **Nurshod Akhmedov** Document version: **1** Reviewed/supervised by: **TUIT, POLITO, UEVORA, UPM, TTPU, TIIAME, ASU, JizPI, FerPI, KSU, MHSSERUZ**

History of revisions

Rev No.	Description	Author	Review	Date
0	Draft	TUIT	Draft creation	24/09/2025
1	Revision	All partners	Contents integration, Partners check	25/09/2025
2	Final check	TUIT	Final review after PA last signature	30/09/2025

Executive summary

The Erasmus+ project "Development of the Targeted Educational Program for Bachelors in Solar Energy in Uzbekistan" is aimed at the satisfaction of an increasing demand for professional experts in the sphere of renewable energy, namely solar technologies, in Uzbekistan. As the country develops its renewable energy base, this project is dedicated to developing an all-around and internationally comparable education system adapted to local industrial needs.

An integral aspect of this project is the organization of National Meetings designed to disseminate project results and conduct local training workshops. The workshops provide a participatory platform for major stakeholders-such as educational institutions, government agencies, industry experts, and students-to exchange information, probe innovations, and develop capacity in the renewable energy sector.

The main goal of the training was to pass the valuable experience and know-how that TUIT professors gained while studying in advanced training courses held in Spain. Transfer of such know-how makes it possible to adapt international best practices to use in Uzbekistan's own environment and make a greater contribution to the local educational process as well as to have a greater foundation for renewable energy technologies.

The training course covers a broad study of topics crucial to Uzbekistan's development of renewable energy, such as solar power systems (concentrated solar power and photovoltaic), energy storage technologies, industrial measurement technologies, solar thermal equipment, energy efficiency, smart grid technologies, wind power technology, environmental impact assessment, and policy and economic issues. This broad syllabus is delivered by experienced professors and researchers from TUIT with a good academic background complimented by practical experiences.

The objectives and goals of the National Meetings are:

- Dissemination of Project Results: The sharing of outcomes of the development of the educational program, emphasizing best practices and actionable suggestions.
- Capacity Building: Enabling teachers, students, and industry professionals with state-of-the-art expertise and skills through specially designed training sessions.
- Stakeholder Engagement: Encouraging cooperation among various stakeholders to ensure the saliency, sustainability, and responsiveness of the educational program to the evolving renewable energy environment of Uzbekistan.
- Feedback Mechanism: Gathering participant feedback to constantly enhance and tailor the learning material for intellectual needs as well as market demand.

This cohesive approach will strengthen Uzbekistan's renewable energy goals by establishing a skilled workforce that can drive the country's transition to green energy solutions.

Local training plan

- Energy Efficiency in Solar Energy Systems
- Smart Grid Technologies and Integration
- Environmental Impact Assessment of Solar Energy Projects
- Policy and Economic Aspects of Renewable Energy Deployment
- Battery Management Systems for Solar Energy Applications

Training Overview

- Energy Efficiency in Solar Energy Systems

This session introduces the fundamental concepts of energy efficiency within solar power systems. Participants will learn about strategies to reduce energy losses throughout the system-from photovoltaic panels to inverters and wiring-while improving overall system performance. Emphasis will be placed on design considerations, technology selection, and maintenance practices that help maximize energy output and cost-effectiveness.

- Smart Grid Technologies and Integration

In this session, we explore the evolving landscape of smart grid technologies and their critical role in modern energy systems. Attendees will gain an understanding of how digital communication, automation, and advanced control systems enable efficient integration of renewable energy sources like solar power. The session will cover benefits such as improved grid reliability, demand response, and enhanced energy management that support the transition to sustainable energy networks.

- Environmental Impact Assessment of Solar Energy Projects

This session highlights the importance of conducting thorough environmental impact assessments (EIA) before implementing solar energy projects. Participants will learn how to evaluate potential effects on local ecosystems, water resources, land use, and communities. The session will also cover regulatory frameworks and best practices to ensure solar developments are environmentally responsible and aligned with sustainable development goals.

- Policy and Economic Aspects of Renewable Energy Deployment

This session provides an overview of the key policy frameworks and economic factors shaping renewable energy deployment. Topics include government incentives, subsidies, tariffs, and regulations that influence market growth and investment in solar and other renewable technologies. Participants will also discuss economic benefits such as job creation, energy security, and long-term cost savings that underpin the shift toward cleaner energy systems.

- Battery Management Systems for Solar Energy Applications

This session focuses on the role of battery management systems (BMS) in optimizing energy storage for solar power applications. Participants will learn how BMS monitor battery health, regulate charging and discharging cycles, and protect against faults to extend battery lifespan and ensure safety. The session will also cover the importance of efficient storage solutions for enhancing solar energy reliability and integration into power systems.

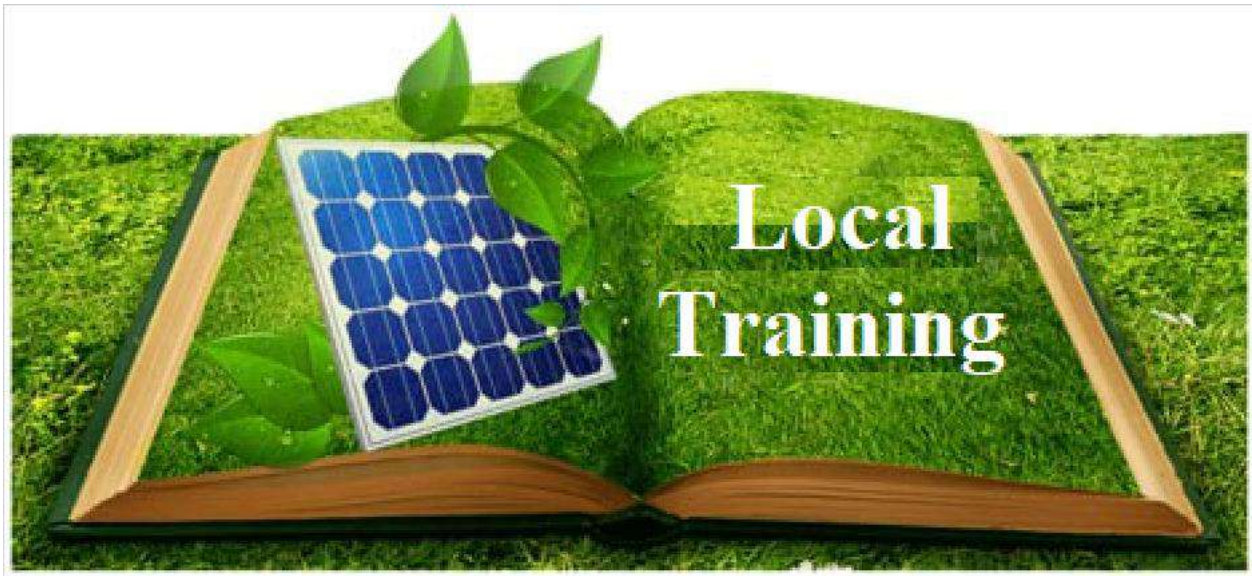
Appendix A.

AGENDA

Erasmus+ KA2 Capacity Building project

Development of the targeted Educational program for Bachelors in Solar Energy in Uzbekistan

(DEBSEUz)



23 September 2025

Local Training

Venue:

Tashkent 100084, Amir Temur Avenue 108
Tashkent University of Information Technology

Participating Institutions:

- Tashkent University of Information Technology (TUIT), Uzbekistan

10:00 – 10:30	**Opening, Welcome** • Welcome Addresses • Welcome address from Project Coordinator – DEBSEUz **Halimjon Khujamatov,** TUIT, Uzbekistan • Ministry of higher education, science, and innovations of the Republic of Uzbekistan (MHSSERUZ) **Responsible person from Ministry** • **Erkin Imamov,** Professor of Tashkent University of Information Technology, Uzbekistan
LOCAL TRAINING SESSIONS	
10:30 – 12:30	**Local training sessions** • **Energy Efficiency in Solar Energy Systems** *Erkin Imamov*, Professor of TUIT, Uzbekistan • **Smart Grid Technologies and Integration** *Khamid Kholmedov*, Associate Professor of TUIT, Uzbekistan
12:30 – 13:00	**Q&A**
14:00-17:00	**Local training sessions** • **Environmental Impact Assessment of Solar Energy Projects** *Nurshod Akhmedov*, Associate Professor of TUIT, Uzbekistan • **Policy and Economic Aspects of Renewable Energy Deployment** Amirov Askar, Head of the accounting office of TUIT, Uzbekistan • **Battery Management Systems for Solar Energy Applications** *Doston Khasanov*, Associate Professor of TUIT, Uzbekistan

Appendix B.

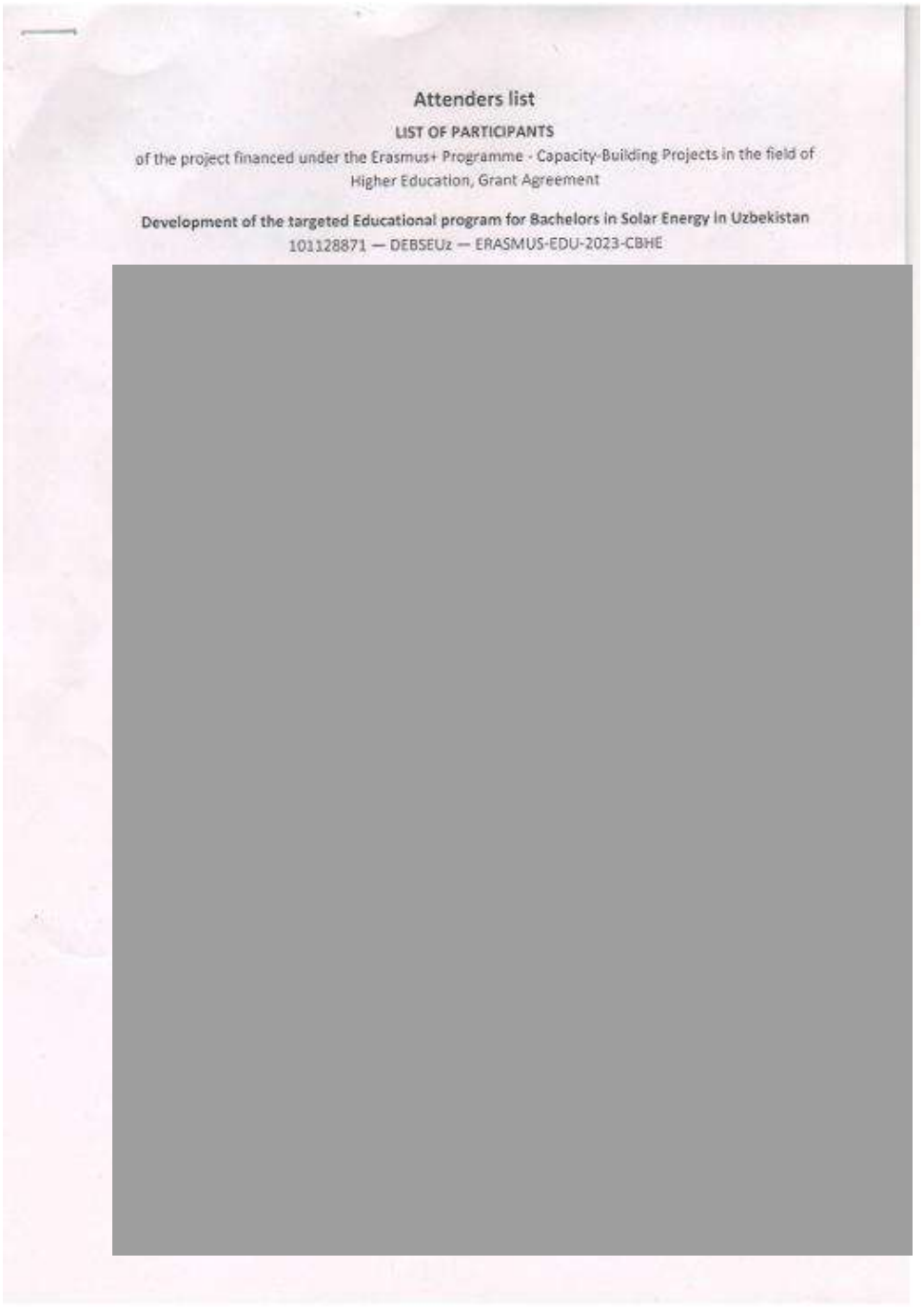
Attenders list

LIST OF PARTICIPANTS

of the project financed under the Erasmus+ Programme - Capacity-Building Projects in the field of Higher Education, Grant Agreement

Development of the targeted Educational program for Bachelors in Solar Energy in Uzbekistan

101128871 — DEBSEUz — ERASMUS-EDU-2023-CBHE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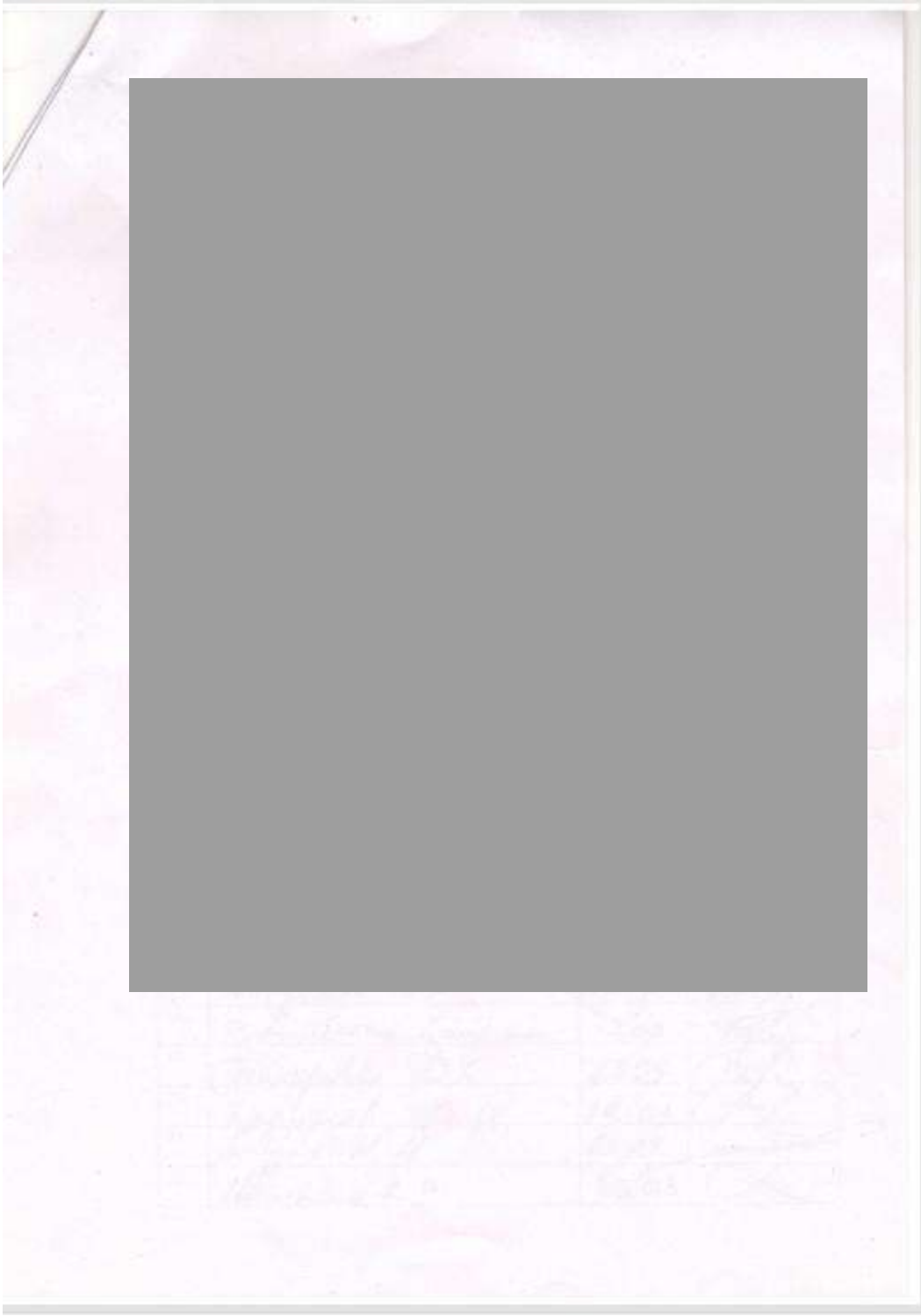

Appendix C

Photo Archive