

## STEM STAFF MOBILITY REPORT within the framework of Erasmus+ KA2 project "INTEGRATED APPROACH TO STEM TEACHER TRAINING"

1. Full Name: Pulat Saidakhmetov

 Place of work and position: M. Auezov South Kazakhstan University , assoc.professor

3. Host University, country, city: Hacettepe University, Turkey, Ankara

4. Mobility period: from December 12 till December 18, 2022.

The purpose of mobility: The development of the STEM approach in education and the exchange of experiences.

Several meetings were held in scientific educational centers (Science center Feza Gursay, Interactive science center, Science and Technology History Exhibitions), which provide each student with tools for innovative thinking and experience on how to use mathematics, engineering, and science to solve various professional problems: developed logic and thinking; the ability to set and solve problems; a scientific view of the world: the ability to explore, analyze, prove; teamwork, communication; creation; digital technology and discussed STEM approaches in education.

During the discussion, the issues of the prospects for the development of STEM education, and building links between educational institutions and business entities (scientific institutions, projects, high-tech industries, etc.) were considered to give students the opportunity to work on real projects;

At Hacettepe University, the main direction is focused on the development of scientific research and engineering practices; as evidence, we can mention a multidisciplinary Technopark.

In the Hacettepe Technopark, there are opportunities for motivated students to succeed in the field of science and technology, enter the technology sector and succeed: motivation for engineering and technical specialties and careers in science and technology; access to laboratories where experiments are carried out and industrial problems are solved for experience and practice; lack of barriers limiting career and professional growth; advanced knowledge in science, technology, engineering, and mathematics.

Studied STEM technologies (digitized museum exhibits and e-books, etc.) on the basis of museums, libraries, galleries, and other public spaces, to which there is free access to all interested persons.

The following issues were noted at the seminar (Hacettepe University): training of specialists with general STEM literacy and general skills of problem-oriented thinking, that is, those who have digital and social competencies to set and complete tasks in any field and professional field (in medicine, ecology, psychology, IT, pharmaceutics, nanotechnologies, aircraft industry and others spheres).

Participant

Pulat Saidakhmetov

Gultekin Cakmakci

Professor of Science Education

Hacettepe University

Faculty of Education

Department of Science Education 06800 Beytepe, Ankara, Turkey

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Nº	Dates	Name of events
1	12.12.2022	Departure from Astana
2	13.12.2022	Visit to the Science center Feza Gursay. Discussion of the experience of using STEM technology in a secondary school.
		Meeting with professors of the Faculty of Education and presentation of participants in the mobility of STEM teachers on the topic: «STEM education at M. Auezov South Kazakhstan University»
3	14.12.2022	Visit to the Interactive science center. Discussion on the topic "Applying STEM skills and knowledge to manufacturing»
		Seminar on the topic: «Support for start-ups for young entrepreneurs at all stages of development: from the development of an idea to its commercialization» at the Hacettepe Technopark
4	15.12.2022	Visit to the Science and Technology History Exhibitions.  Discussion on the topic "Experience of using STEM technologies in digitizing museum exhibits»
5	16.12.2022	Discussion on the topic "Features of STEM directions. Models and experience of implementing STEM education at the IT faculty".
6	17.12.2022	Seminar on the topic: «Best STEM practices at Hacettepe University and exchange of experiences»  Final discussion. Obtaining certificates of attendance.
7	18.12.2022	Departure from Ankara

Participant

Pulat Saidakhmetov

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## CERTIFICATE OF ATTENDANCE

This is to certify that

## Pulat Saidakhmetov

from M. Auezov South Kazakhstan University, Shymkent, Kazakhstan has participated in the STEM Staff mobility at the Hacettepe University, Ankara, Turkey "INTEGRATED APPROACH TO STEM TEACHER TRAINING" from the 12th of December to 18th of December, 2022, within the framework of Erasmus+ KA2 project

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