Modernization of Mechatronics and Robotics for Bachelor degree in Uzbekistan through Innovative Ideas and Digital Technology

(MechaUz)

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MechaUZ_D.1.3_Development of an academic network for sharing experience in the field of Mechatronics _V.1

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Approval table

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Abstract

This document gives a detailed description and report of the Academic Network for sharing the experience and exchange of good practices in the field of Mechatronics. The report contains the set of introduction, development and implementation activities, overall results, participants roles and responsibilities and all the procedures of the academic networks. It serves as a framework for the project partners to effectively carry out all academic network activities.

Abbreviations

Acronym	Definition
DoW	Description of Work
EC	European Commission
WP	Work Package
WPL	Work Package Leader
WP1	Work Package 1
LMS	Learning Management System
AndMI	Andijan machine-building institute
MechaUz	Modernization of Mechatronics and Robotics for Bachelor degree in Uzbekistan through Innovative Ideas and Digital Technology
HEI	Higher Educational Institution

Table of contents

Executive Summary

The document has been prepared for international level use within the *Work Package 1.3 – Development of an academic network for sharing experience in the field of Mechatronics* by Andijan machine-building institute (AndMI, Uzbekistan) and is supported by the project coordinator – International Hellenic University (IHU, Greece) and all project partners. It is an overall the Academic Network plan for the MechaUZ project, and it will provide the project partners with all necessary details and tools of the academic network in all project activities.

As part of the implementation of task 1.3 of "*Development of an academic network for sharing experience in the field of Mechatronics*" has been established for sharing experience and exchange of good practices in the field of Mechatronics. At the first stage, the academic network consists mainly of the MechaUz Uzbek partner universities and is supported by the EU partner universities, but it will be open for joining other primarily Uzbek universities at a next stage. The academic network will continue to function after the formal completion of the project and in this way will contribute to improving the impact and sustainability of the project.

Introduction

The main aim of the WP1.3 is to create sustainable development academic network for sharing experience and exchange of good practices in the field of Mechatronics and Robotics.

The main goal of the academic network is to create the professional web platform for supporting the higher educational institutions, which provides for:

- improving the quality and relevance of training and teaching in the field of Mechatronics;
- promoting internationalization;
- supporting the expansion of cooperation between universities across Europe.

The platform consists of the project web-site, Social media Networks, online learning & collaboration will serve as a Central Training Center for existing European, web platforms related to online learning, mixed/virtual mobility, online campuses and sharing of best practices. The platform will be supported by the Erasmus+. At the first state the official web-site of the project and Social Media Networks had been created and sharing the experience and results.

The involved Uzbek parties:

- Andijan machine-building institute
- Turin Polytechnic University in Tashkent
- Fergana Polytechnic Institute
- Tashkent University of Information Technology
- Karshi Engineering-Economic Institute
- Tashkent State Technical University
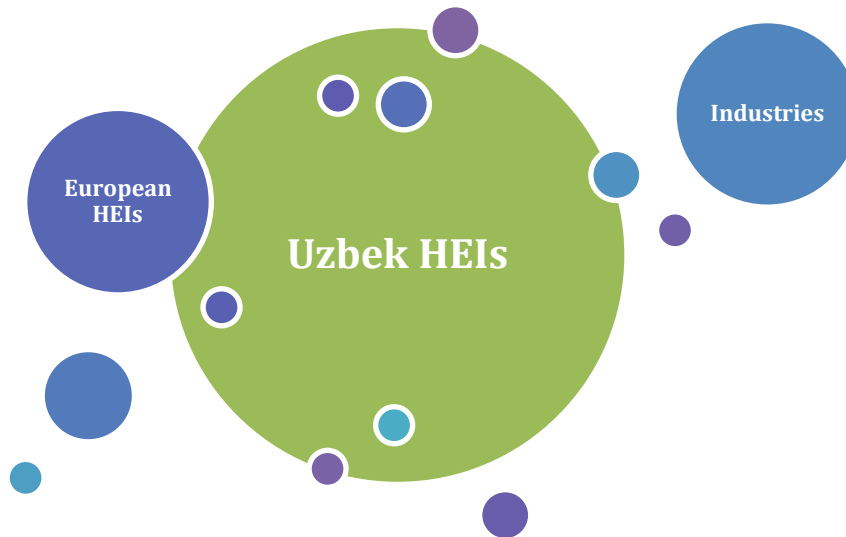
The involved European parties:

- International Hellenic University, Greece
- South East European Research Centre, Greece
- Vilnius Gediminas Technical University, Lithuania
- Liepāja University, Latvia
- Vidzeme University of Applied Sciences, Latvia
- Polytechnic Institute of Viana do Castelo, Portugal

Other HEI's in the area interested in the relevant fields:

- Branches of the Tashkent University of Information Technology
- Namangan Engineering-Economic Institute

Companies-Industries and people connected with academic institutions:
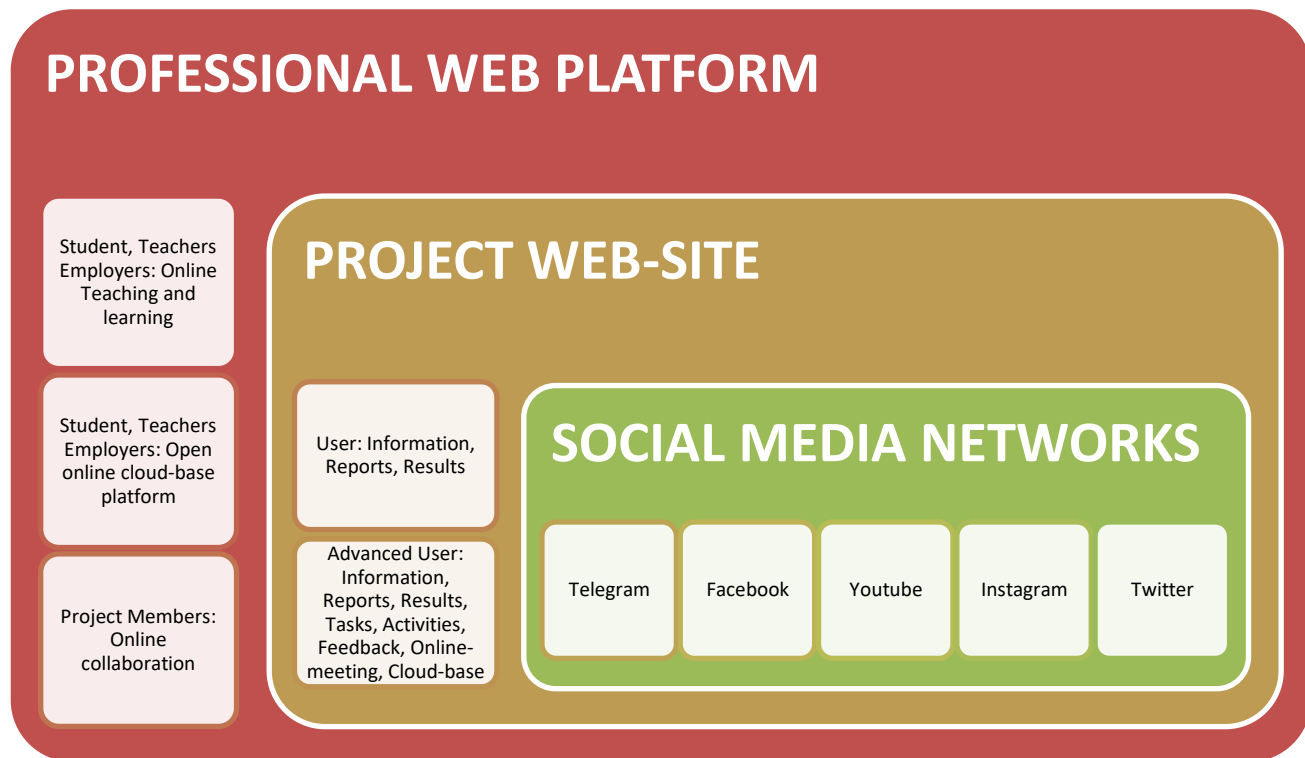
- UzAuto Motors
- Climate Control JSC

Representing the relevant parties of Academic network

Digital collaboration can bring a number of advantages to universities:

- improving the quality and relevance of training and teaching;
- making higher education more accessible to a wider circle of students;
- creating links between higher education institutions, research institutes, employers and the general public.

At the next stage, the professional web platform will become a single point of access to existing online platforms & collaboration and improve the dissemination of best practices among all universities. The web platform will stimulate international cooperation and the joint creation of knowledge and content. The web platform will provide HEIs with materials on:

- the training of teachers, students and employers in the field of Mechatronics;
- the exchange of materials and best practices;
- blended and digital learning and academic mobility;
- cooperation between universities and employers.

PROFESSIONAL WEB PLATFORM

Student, Teachers Employers: Online Teaching and learning

Student, Teachers Employers: Open online cloud-base platform

Project Members: Online collaboration

PROJECT WEB-SITE

User: Information, Reports, Results

Advanced User: Information, Reports, Results, Tasks, Activities, Feedback, Online-meeting, Cloud-base

SOCIAL MEDIA NETWORKS

| Telegram | Facebook | Youtube | Instagram | Twitter |

Academic network ecosystem

MechaUz – Development of the academic network for sharing experience and exchange of good practices

The Academic Network should be including more links, comments and exchange the information within the scientists, educational structures and associations, institutions, universities, which will give it flexibility and dynamism. The activities of the Academic Network will be carried out follows:

- Organizing the training courses in the field of Mechatronics;
- Organizing and targeting the attraction of informational, methodological and other resources of educational institution in the field of Mechatronics.

The Academic Network had built based on follows:

- autonomy and closeness of all institutions;
- interact on the principles of social partnership;
- build strong and effective line not only between professional structures, but between professional teams working on a common problem;

The main principle of the academic network is the type of network interaction as a training, organizing a communication platform and allowing developing, testing and offering.

Line interaction involves the maximum number of attends of training, connections, likes, articles, comments and any other number of objects.

The development and implementation of the Academic Network structured and phased follows:

First step: Create the communication line in social media to collect the information and options related to the project results. There are:

- o Name: MechaUz Members Telegram group.
  Link: https://t.me/joinchat/FYmBMOfnyO_3q_ny.

MechaUz // Erasmus+
CBHE лойиҳаси
иштирокчилари гуруҳи

28 members

JOIN GROUP

Aim: sharing the experience and working closer, regularly communicating each other's.

Target group: Members of all Uzbek HEIs.

o Name: MechaUz Dissemination Telegram Group.

Link: https://t.me/MechaUZ_Dissemination.

Aim: sharing results of the project.

Target group: Members of all Uzbek HEIs.

o Name: @machauzerasmus.

Link: https://www.facebook.com/Mechauz-100164515075994.

Aim: sharing results, video and actions as a post.

Target group: All.

o Name: MechaUz Instagram Group.

Link: https://www.instagram.com/mechauz?r=nametag.

Aim: sharing results and actions as a post.

Target group: All.

o Name: MechaUz Twitter Group.

Link:

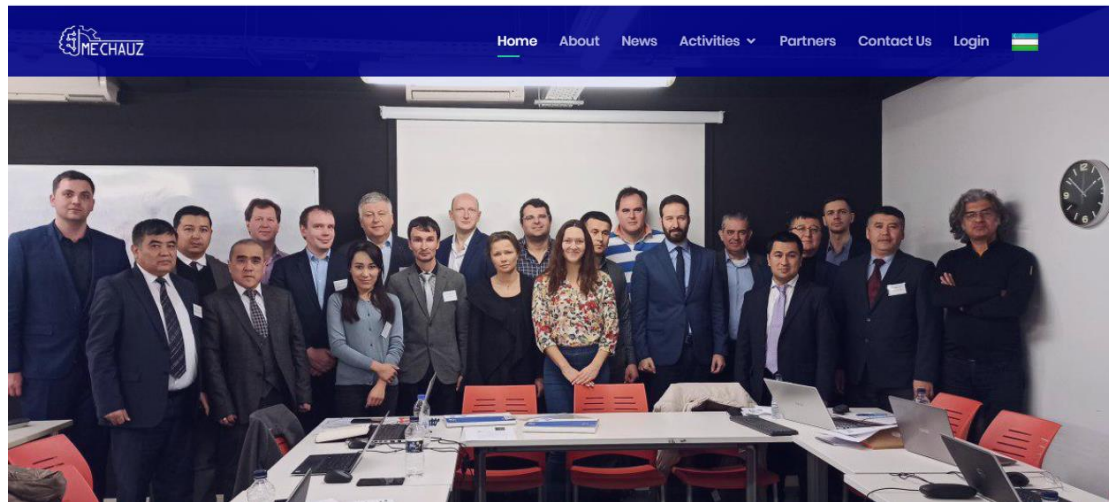https://twitter.com/UzMecha/status/1274918427422064641?s=20.

Aim: sharing results and actions as a post.

Target group: All.

Second step: Official web-site of the project was created and developed by AndMI Team. The goal of projects web-site is the transfer of static and dynamic content - both directly to end users, as well as indirectly through means of various kinds of interfaces. The purpose of a website is to turn visitors into prospects and printing the best dissemination of the project results. All partners involved maintaining the project website throughout the project lifetime. Target group of project website is for entire academic community.

Mechauz project web-site is embedded into the www.mecha.uz domain.

www.mecha.uz project web-site interface

Working language of the website are Uzbek and English. There are two types of the users:

- Users (without registration) can get following opportunities:
  o Find the all information related to the project;
  o All reports and dissemination results;
  o Info about the partners, news and events.
- Users (with registration) can get following opportunities:
  o Find the all information related to the project;
  o All reports and dissemination results;
  o Info about the partners, news and events;
  o Tasks, Activities and its results;
  o Make a Feedback for all tasks and results;
  o Attending the Online-meeting
  o Using the Cloud-base rsourse as a DropBox.

Third step: Definition of architecture and organization of a web platform based on the AndMI server for interaction between partner universities, as well as the network storage of the Training Center at AndMI. The web platform should be open, with free registration of users. The main aims of the web platform:

- Development of training courses for teachers, staffs and others in the field of Mechatronics;
- Organising the online training and workshops;

- Developing the e-journal system for sharing the results in the platform should give the feedback based on comments, subscribes and via emails.

AndMI is the responsible for creation, maintains and development of the web platform in the field of Mechatronics. The following networks are of interest within the MechaUz project: Kydon – Leading Learning.

Kydon is an industry leader in transforming the learning landscape in the region to develop a thriving and globalized citizenship for the 21st century. Mission To harness the power of learning technologies and create new learning environments for global mobile workers and a new generation of learners – so learning can take place virtually anywhere, anytime. Description Kydon is the leading provider of learning technologies and technology-enhanced learning solutions in Singapore and Asia.

Before constructing the web platform, AndMI should be:

- establish the Training Center;
- equip the Training Center according to project specifications;
- develop the regulatory documents and network storage.

The web platform should be open, with free registration of users.

List of responsible staffs for the web platform

Name of the Institute	Responsible person for the academic network		Contact details
	Full name	**Position**	
Andijan machine-building institute	Javlonbek Rakhmatillaev	Vice Rector for Digital Education	javlonbiy0286@gmail.com
	Khamdamov Utkir	Ass. Prof	utkir.hamdamov@mail.ru
	Ismailov Alisher	IT Staff	alisherismailov1991@gmail.com

Creating web platform for sharing experience and exchange of good practices in the field of Mechatronics within the frame of the project, the following results take place:

- Establishing and equipping the Training center;
- Creating the online platform;
- Developing the online courses;
- Creating the e-journal system in the platform;

- All resources will be saved in AndMI server.

Cluster Meeting to share best practices

Organisers: National Erasmus+ Office in Uzbekistan (NEO), Ministry of Higher and Secondary Specialised Education (MHSSE), Ministry of Investments and Foreign Trade (MIFT)

Participants: Coordinators and project team members (including accountants) of 25 ongoing Erasmus+ Capacity Building in Higher Education-CBHE projects, representatives of the MHSSE involved in CBHE projects, National Teams of Higher Education Reform Experts (HEREs)

Specify the topic: The meeting dedicates to the management of CBHE projects, with a special focus on project implementation and working with project budget management issues following a Grant holder's meetings in Brussels.

Impact at individual level:

- Project members from different HEIs shared both best practice/ difficulties in project management and financial issues and therefore will be able to prevent them respectively;

- Facilitate exchanges of good practice, sharing of knowledge and networking of CBHE projects to enhance their quality, impact and sustainability.

Impact at the Higher Education Institutions

- Meeting participants represented the different levels of HEIs, some of them have already had Tempus/Erasmus+ experience, some of them are newcomers. All of them however confirmed that the involvement university administration, international relations offices and the recently involved financial departments ensured the impact at institutional level;

- all participants were confident on the importance of Erasmus+ in the internationalization strategy of HEIs and enhancing of HEIs administrations' support in the effective financial management of CBHE projects;

- project participants acknowledged that successful implementation of the project will strengthen linkages between HE institutions and the wider economic and social environment.

Impact at national/regional level

It should be underlined that the Concept for HE development by 2030 was adopted by a Presidential decree on October 8, 2019. The most significant achievement of Erasmus projects, activities of the NEO and HEREs in 2019 was the decision of the

Government of Uzbekistan to follow the Bologna principles and to introduce ECTS at all HEIs in Uzbekistan by 2030.

Impact on international level

- The participants in the meetings were confident that strengthening of local capacities in project financial management and proper operations of the local bank accounts for grants, less bureaucracy and support to the local project teams will ensure the overall program impact and will attract distinguished European universities to cooperate with Uzbekistan HEIs.

- The local projects partners would like to share the conclusions of the Cluster Meeting with their partners in order to brief them on specific financial management-related measures to be considered in further project implementation.

- The meeting participants have been provided again with all documentation and links to EACEA beneficiaries space and Brussels Grand holders' meeting materials   https://eacea.ec.europa.eu/erasmus-plus/beneficiaries-space/capacity-building-in-field-higher-education-2019_en.