Co-funded by the Erasmus+ Programme of the European Union

Bringing your ideas and innovations to education

MECHAUZ

The Official Newsletter №1 of the MechaUZ project within Erasmus+CBHE program - MechaUZ

Project number: 609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP

The Erasmus+ CBHE MechaUZ project aims to **develop Bachelor program in the field of Mechatronics and Robotics through innovative ideas and digital technology based on national priorities and supporting the knowledge cycle: training-teaching-innovation in Higher Education.**

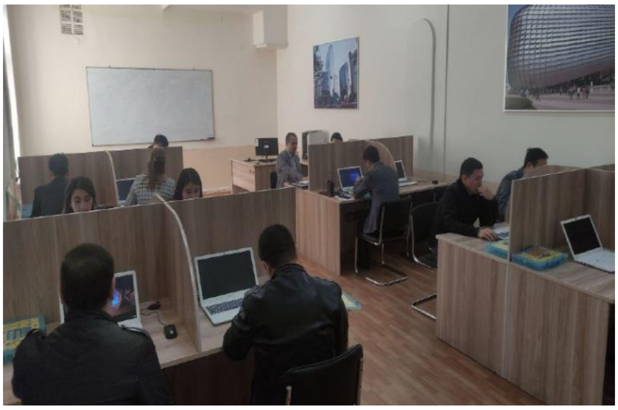
What we have done so far

Partners have started the project's activities by data collection and preparation. In order to cover the objectives of WP1 with respect to teaching systems and methods in the field of Mechatronics in the EU-27 countries, UK and Uzbekistan. Partners completed a report according to the format of a template (MechaUZ - Working Template for WP1). Each partner was responsible for delivering information about the tasks of WP1 for specific countries, according to Table 1 below. They have collected representative information from each country of interest, rather than an exhaustive list of all related teaching systems and methods in that country. The consortium has made a report as results of the analysis and achieved the following outcomes which is already available on project webpage:

- Analysis and comparison of teaching systems and methods of 27 European universities and Uzbekistan universities. The general plan for bridging the gap among EU and Uzbek Higher Education Institutes (HEIs) was approved and discussed;
- Conclusions regarding the experience of the EU partners in the implementation of standards, curriculum and teaching materials in the field of Mechatronics.
  Leaded by: IHU in collaboration with TTPU
  Participating organisation: VGTU, LIEPU, Via, IPVC, AndMI, TUIT, FPI, KEEI, TSTU
  Acomplished dates: M4 to M11 (Feb 2020 – Sept 2020)
  Results : https://mecha.uz/client/preperation.php
- The MechaUZ project kick off meeting was held in The Salloniki, Greece, in cooperation with International Hellenik University.

Our first products related to Development, Mechatronics and robotics bachelor degree programs have been established and modernized in 5 universities of Uzbekistan.

In the phase of establishment of the project, 6 I-labs have been created and equipped with modern and specialized equipment based on the outcomes of need analysis of industrial enterprises and as well as the participating HEIs.



On 26th of March, 2022, Uzbek partners have held seminar meeting on development part of the project and presented all the work and the results achieved so far. Furthermore, discussed the development of study plan that needs to be the core for the bachelor programs of the project

Co-funded by the Erasmus+ Programme of the European Union
This project has been funded with support from the European Commission.
MechaUZ- Modernization of Mechatronics and Robotics for Bachelor degree in Uzbekistan through Innovative Ideas and Digital Technology
project number: 609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP

outcome in Uzbek HEIs

.

The Dissemination activities of MechaUZ have been actively implemented with the contribution of all the project partners. The official website of the project was launched and is frequently updated. In addition, the project has expanded its social media presence, by creating accounts on Facebook, Twitter, Instagram, Telegram and YouTube! All the results and news are constantly published on the above platforms! Check out the online channels of MechaUZ, below:

Project related information on the official website of the project: www.mecha.uz

Telegram channel: https://t.me/MechaUZ_Dissemination

Channels in Instagram: https://www.instagram.com/mechauz?r=nametag

Facebook channel: https://www.facebook.com/Mechauz-100164515075994

YouTube channel: https://www.youtube.com/channel/UCbCy3vI_m2D3qW-pCFHVmTQ

Apart from the visual identity of the project (logo, color palette), the partners have also created an stand album, the MechaUZ official dissemination plan and some further material. (Find all the above, here: https://mecha.uz/client/dissimination.php

What we are doing now

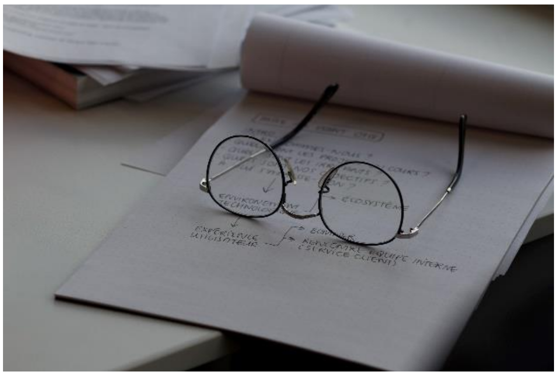
Partners are now working on defining and developing study plans of bachelor degree being offered in partner universities and conduct courses for teachers of Uzbek partners in credit module system, and within this process send the Uzbek specialists to European universities for inter-partner visits.

Co-funded by the Erasmus+ Programme of the European Union
This project has been funded with support from the European Commission.
MechaUZ- Modernization of Mechatronics and Robotics for Bachelor degree in Uzbekistan through Innovative Ideas and Digital Technology
project number: 609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP

- Analyze and comparison of teaching systems and methods in HEIs of Europe and Uzbekistan

- Studying experience of the EU partners in the implementation of standards, curriculum and teaching materials in the field of Mechatronics. Compiling a list of good practice examples.

- Creating sustainable development academic network for sharing experience and exchange of good practices in the field of Mechatronics



Program titles

- Mechatronics
- Mechatronics Engineering
- Automation Engineering
- Automation and Control Engineering
- Robotics and Intelligent Systems
- Mechatronics and Robotics
- Mechatronics, robotics and Digital manufacturing
- Mechatronics and Robotic Engineering
- Mechatronic systems for Industry and Medicine
- Control for Green Mechatronics
- Mechatronic systems and advanced mechanics
- Mechatronics and Business Management
- Robotics and Automation Engineering

Analyzed programs

- 52 bachelor degree programs from 26 countries

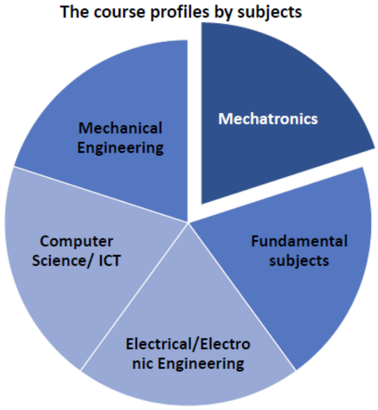
Bachelor Thesis

- Bachelor thesis is an integral part of more than 95% of the bachelor degree programs

ECTS units

- ECTS standards (30 ECTS per semester)

The course profiles by subjects



Good practices

investors' spotlight

VILNIUS TECH

Vilnius Gediminas Technical University

Vilnius Campus, Vilnius Lithuania +2

QS World University Rankings

751-800

Program Duration

- 22 programs have a duration of 3 years (47.8%)
- 16 bachelor degree programs have a duration of 4 years (34.8%)
- 4 programs have a duration of 3.5 years (8.7%)
- 4 programs have a duration of 5 years (8.7%)

What we will do in the future

Partners are now discussing to establish BA program in all Uzbek partner universities and to get an accreditation for Mechatronics and Robotics program. Moreover, We are planning to send teachers for training to Polytechnic Institute of Viana do Castelo (Viana do Castelo, Portugal) in July month and Vilnius Gediminas Technical University (Vilnius, Lithuania). LIEPU will present and prepare a draft proposal for the workshop structure and a timeline for delivery of actions.

2.1. Development of a new scheme for cooperation	**2.2. Development of BS program**	**2.3 Testing and adapting the curricula**	**2.4 Presenting, discussing & Publishing BSc Program**
2.1.1. Developing the **Methodology** for university-industry-ministry collaboration Leader: ViA, IPVC Duration: M27 (January) 2.1.2. Developing the **ECTS methodology** & accreditation guidelines for the curriculum Leader: LiePU Duration: M27 (January) 2.1.3. Developing the **Innovative teaching methodologies** contains with: the module-competence approach for developing the curriculums; the methodology for preparation of manuals and textbooks; team based projects for students Leader: VGTU Duration: M27 (January)	2.2.1. Developing and modernising **standards, curriculum and teaching programs** The basic standard, curriculum and teaching programs will be developed by VGTU. Based on basic, 4 versions of curriculums will be modernized by: 1-version: TTPU 2-version: TUIT 3-version: AndMI 4-version: TSTU, KEII, FPI Leader: VGTU Duration: M27-M29 (January-March) 2.2.2. **Developing courses:** lectures, practices and laboratories, enriched by textbooks, manuals and pedagogical methods. All Uzbek Partners will develop the 2 courses based on their versions. Leader: VGTU Duration: M29-M31 (March-May)	2.3. **Testing and adaptating** of curriculum, materials and methods after developed the program, starting selected courses in HEIs in Uzbekistan. Testing will be carried out by participants from all partners and realized two phases. First, courses will be tested by teachers, experts and public authorities. Second, courses will be tested by students in frame of regular teaching process. Feedback will be gained through evaluation questionnsaires on results of which modifications within training curricula and courses will be done. Leader: TSTU Duration: M30 – M32 (April, 2022 – June, 2022)	2.4. **Presenting and discussing** the new Bachelor's program, **printing** and publishing on the web site of project. Leader: FPI Duration: M44 – M47 (June, 2023 – September, 2023)

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission.
MechaUZ- Modernization of Mechatronics and Robotics for Bachelor degree in Uzbekistan through Innovative Ideas and Digital Technology
project number: 609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP

Future events schedule

DATE(2022)	EVENT	Host org.	PARTICIPANTS
30-Mar	**Online partners meeting(Organizer FPI)**	**FPI**	**All partners**
15-20 May	**Partners meeting in Tashkent for TTT preparation**	**TTPI**	**All partners**
29 May - 6 June	**Partners meeting & First TTT event in Vilnius, LITHUANIA**	**VGTU**	**All partners, Trainers**
17-22 July	**Second TTT event in Viana Do Castello, Portugal**	**IPVC**	**All partners, Trainers**

MechaUZ PARTNERS

Co-funded by the Erasmus+ Programme of the European Union

This project has been funded with support from the European Commission.
MechaUZ- Modernization of Mechatronics and Robotics for Bachelor degree in Uzbekistan through Innovative Ideas and Digital Technology
project number: 609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP