



# MODERNIZATION OF MECHATRONICS AND ROBOTICS FOR BACHELOR DEGREE IN UZBEKISTAN THROUGH INNOVATIVE IDEAS AND DIGITAL TECHNOLOGY

609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP































**DEGREE IN UZBEKISTAN THROUGH INNOVATIVE IDEAS AND DIGITAL** 

609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP

























PZ\_Andijan machine-building institute



Project web-site: www.mecha.uz



Project YouTube channel



Project Facebook group





#### **OBJECTIVES**

- A new scheme of cooperation for university-industry links based on EU skills;
- Developing the standards and curricula, courses, teaching methods, materials and tools (soft skills);
- Developing the new courses for teachers, staff in the field of Mechatronics and engineers:
- Training the teacher;
- Developing a new generation of handbooks/manuals for direction of Mechatronics;
- Establishing the innovation laboratories (I-LAB) in Uzbekistan for supporting the knowledge cycle: training-teachinginnovation, training center and the Mechatronics Society using the best practices of EU;
- Developing the recommendations for the transfer a new model of education system to other sectors of the Uzbek economy.

#### **RESULTS**

- 1 ECTS-accredited Bachelors Program in Mechatronics at 5 universities from Uzbekistan
- 12 updated courses (Bachelors)
- A course for Mechatronics teachers & engineers (i.e. train the trainers)
- 6 new Mechatronic labs
- 5800 students being taught with the new curricula
- 31 academic staff trained
- 1 Methodology for university-industry collaboration in Mechatronics
- 1 Training Centre for teachers of special subjects and engineers and Mechatronics Society for promoting research
- 1 web platform for online learning & collaboration







MODERNIZATION OF MECHATRONICS AND ROBOTICS FOR BACHELOR DEGREE IN UZBEKISTAN THROUGH INNOVATIVE IDEAS AND DIGITAL **TECHNOLOGY** 

609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP

























PZ-Andijan machine-building institute



Project web-site: www.mecha.uz



Project YouTube channel



Project Facebook group



WORK PACKAGES			DELIVERABLES/ RESULTS/ OUTCOMES			
#	TITLE	#	TITLE	PREVIOUS DEADLINE	STATUS	UPDATED DEADLINE
1	Project Preparation and Analysis of study programs	1.1.	Analysis and comparison of teaching systems, approval of the general plan and allocation of responsibilities between consortium members	September 2020	Completed	September 2021
		1.2.	Studying experience of the Eu partners, compiling a list of good practice examples	September 2020	Completed	September 2021
		1.3.	Development academic network for sharing experience	September 2020	Completed	September 2021
	Development of new BSc program	2.1.	Development of a new scheme of cooperation	April 2021	On going	August 2022
		2.2.	Development of Bsc program	April 2021	On going	August 2022
2		2.3.	Testing and adapting	October 2021	To start	October 2022
		2.4.	Presenting, discussing and publishing Bachelor's program	September 2022	To start	October 2023
	Development of the new training courses and organising trainings for UZB teachers,staff and engineers	3.1.	Developing courses for trainers	October 2021	On going	October 2022
3		3.2.	Attend advanced Mechatronics trainings	October 2021	On going	October 2022
		3.3.	Organizing courses for lectures	June 2022	To start	June 2023
4	Development	4.1.	Establishmnet of I-LABs, Training Centre and Society	September 2022	On going	October 2023
5	Quality Plan	5.1.	Monitoring and quality control by QT	September 2022	On going	October 2023
	Dissemination & Exploitation	6.1.	Approve and accredit the new BSc's program	August 2022	To start	September 2023
_		6.2	Creating a project website	August 2020	Completed	August 2020
6		6.3.	Published the achieved results	September 2022	To start	October 2023
		6.4.	Workshops, Seminars and Meetings	September 2022	On going	October 2023
7	Management	7.1.	Management by grand Holder and national coordinator	September 2022	On going	October 2023
		7.2.	Project reports	September 2022	On going	October 2023
		7.3.	Final report elaboration	September 2022	To start	October 2023





609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JF

























PZ\_Andijan machine-building institute



Project web-site: www.mecha.uz



Project YouTube channel



Project Facebook group

Development, 12 courses consist of "new" and the existing, within the planned BSc program are the following and all courses consist of lectures, practise and laboratories, enriched by textbooks, mannuals and pedagogical methods:

#### **New courses:**

- 1. Pneumatronics and Hydratronocs Systems.
- 2. Fuzzy Logic Mechatronics.
- 3.PLC for Advanced Mechatronics

### The existing courses:

- 1. Electronics Devices and Circuits.
- 2. Computer programming.
- 3. Microcontroller Based Design.
- 4. Control Systems.
- 5. Design of Machine Elements and CAD/CAM.
- 6.Industrial Automation.
- 7. Mechatronics System Design.
- 8. Robotics.
- 9. Applications of Industrial Robots for Advanced Manufacturing.









MODERNIZATION OF MECHATRONICS AND ROBOTICS FOR BACHELOR DEGREE IN UZBEKISTAN THROUGH INNOVATIVE IDEAS AND DIGITAL **TECHNOLOGY** 

609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP

























PZ-Andijan machine-building institute



Project web-site: www.mecha.uz



Project YouTube channel



Project Facebook group



No	Partners	Staff Costs	Travel Costs	Costs of Stay	Equipment Costs	Subcontracting Costs	Total
P1	IHU	49 537	7 020	13 080	-	5 000	74 637
P2	SEERC	61 943	7 275	13 320	-	12 000	94 538
Р3	VGTU	24 055	5 700	11 280	-	-	41 035
P4	LiePU	24 055	7 095	14 400	-	-	45 550
P5	ViA	24 055	5 880	12 120	-	-	42 055
P6	IPVC	49 480	8 260	10 920	-	-	68 660
Р7	AndMI	17 955	10 460	16 980	32 500 <b>24 950,00</b>	12 000 <b>2 000,00</b>	89 895
Р8	TTPU	15 485	8 940	15 300	25 000 <b>25 000,00</b>	-	64 725
Р9	FPI	13 815	10 240	18 420	25 000 <b>22 181,50</b>	4 180	71 655
P10	TUIT	14 675	8 940	15 300	25 000 <b>24 204,29</b>	-	63 915
P11	KEEI	13 815	10 240	18 420	25 000 <b>22 181,05</b>	-	67 475
P12	TSTU	13 815	8 940	15 300	25 000 <b>22 189,00</b>	-	63 055
P13	MHSSERUZ	4 950	2 590	3 960	-	-	11 500
	Total	327 635	101 580	178 800	157 500	33 180	798 695





#### MODERNIZATION OF MECHATRONICS AND ROBOTICS FOR BACHELOR DEGREE IN UZBEKISTAN THROUGH INNOVATIVE IDEAS AND DIGITAL **TECHNOLOGY**

609564-EPP-1-2019-1-EL-EPPKA2-CBHE-JP























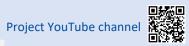


PZ-Andijan machine-building institute



Project web-site: www.mecha.uz





Project Facebook group



	Staff Costs	Travel Costs	Subcontract	Equipment Costs
a. b. b.	Joint Declaration  Time-sheets  Proof of formal contractual relationship  Any evidence justifying the workload and activities/outputs	<ul> <li>a. An Individual Travel Report</li> <li>b. Boarding passes, tickets, hotel bills or documentary evidence of the travel.</li> <li>c. Copies of the insurance policies required for staff travelling abroad.</li> </ul>	<ul> <li>a. Contracts</li> <li>b. Third-party invoices</li> <li>c. Bank Statements</li> <li>d. Reference to the relevant national legislation</li> <li>e. Evidence of the procurement procedure</li> </ul>	<ul> <li>a. Full procurement procedure documents</li> <li>b. Invoices which must contain the following at data: <ul> <li>a. Invoice number</li> <li>b. Name of the company</li> <li>c. National Identification</li> <li>Number</li> <li>d. Company address</li> <li>e. Invoicing Date</li> <li>f. Detailed concept</li> <li>g. Unit/Prize</li> <li>h. Total Amount to be paid</li> </ul> </li> <li>c. Proof of payment (bank statements)</li> <li>d. Proof of registration in the beneficiary's inventory</li> </ul>



## THANKS FOR YOUR ATTENTION

## Questions??

