



#### Implementation of Erasmus+ TechReh project at TUIT

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# Project goal: is the capacity building of universities and medical centers in Uzbekistan, according to the needs of innovative rehabilitation methods

- **Expected results:** TechReh will focus on three main results:
- 1. Master's program in the field of medical rehabilitation for the use of advanced technology solutions for the training of doctors and health professionals on innovative methodologies, such as a wireless computer network breeches; patient monitoring system during activities of daily living or treatment conducted in a rehabilitation center; Virtual reality and psychological rehabilitation.
  - 2. The content management system will be implemented through a web-based platform for regular dialogue, dissemination, and use of the internationalization of interaction between education, science, innovation in the field of rehabilitation. Thus, the assistance will be provided to several master's modules according to the method of e-learning and provided specific tools (forum, chat, database, etc.) for the development of an international network.
  - 3. Create a permanent office in each partner institution in Uzbekistan that will play a key role in the promotion of research and the use of technologies in medical rehabilitation.

#### About TechReh project

Action:	Capacity Building in Higher Education
Period	2015-2018
Grant requested	744 346,00 €
For TUIT Official web site	75 925,00 €  http://wwww.techreh.unisannio.it

#### European participants

Grantholder University: University of Sannio (Italy) http://www.unisannio.it/



University Pierre and Marie Curie (France) http://www.upmc.fr/en/



Medical University in Plovdiv (Bulgaria)

http://meduniversityplovdiv.bg/ru/



**Vilnius University (Lithuania)** 

http://www.vu.lt/en/?Itemid=



**European Association of Physical and Rehabilitation Medicine** 

(Estonia) http://www.esprm.net/society-

details/GsiJ/estonia



PLUX - Wireless Biosignals, S.A. (Portugal)

http://www.plux.info/index.php/en/



#### Uzbek participants

**Tashkent Pediatric Medical Institute (TPMI)** 

www.tashpmi.uz



The branch of the Tashkent University of Information Technologies in Karshi http://tuitkf.uz/



The branch of the Tashkent Pediatric Medical Institute in Nukus

http://mednf.uz/index.php/ru/



Republican Specialized Scientific and Practical Medical Center of Therapy and Rehabilitation www.therapy.uz



Tashkent University of Information Technologies named by Muhammad

TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES NAMED AFTER MUHAMMAD AL-KHWARIZMI

Al-Khwarizmi <a href="https://tuit.uz/">https://tuit.uz/</a>

Center for the introduction of e-learning in educational institutions while MHSSE



www.ec.uz

Kick off meeting in the framework of the Erasmus+ TechReh (Technology in Rehabilitation) project at the University of Sannio, Benevento, Italy 06-08 July 2016









Starting Conference of the project in Uzbekistan "TechReh: Capacity building of universities and medical centers in Uzbekistan, according to the needs of innovative methods of rehabilitation" Erasmus +







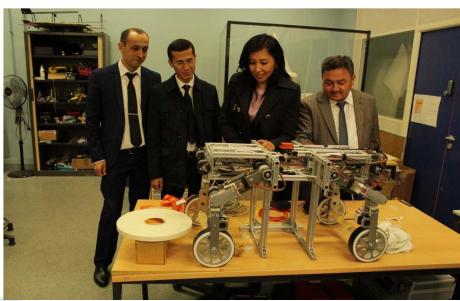


#### Second meeting in the framework of the Erasmus+ TechReh (Technology in Rehabilitation) project at the UPMC, Paris, France 24-26 April 2017









#### Prospects

- Develop the final version of Master program and curriculums
- Create the laboratory of TechReh
- To teach the teachers and master courses students to work with the special equipment in laboratory
- Methodical materials on local language preparation
- To decide all organization problems to open the Master courses

## STAGES OF MASTER COURCES IMPLEMENTATION IN TUIT

STAGE		Time-
Discussion Draft of the Curriculum with Partners in Nukus		frame
On-line teleconference with UPMC		<b>2016.11</b>
Preparation of the Curriculum draft		<b>2017.02</b>
Confirmation Curriculum with the rector of TUIT		<b>2017.02</b>
Discussion the draft in Paris meeting		<b>2017.03</b>
Corrections		<b>2017.04</b>
Collecting data on the specialists needs from medical		<b>2017.05</b>
organizations  Submit the atoticism to Francoic Ministry (on your state for		<b>2017.06</b>
Submit the statistics to Economic Ministry (on requests for specialists)		<b>2017.07</b>
Approval from EM		<b>2</b> 017.09
Preparation the final version		<b>2</b> 017.09
Submit the final version of Curriculum to TUIT Advice (Board	)	<b>2017.09</b>
Draft of Lecture plans (for each subject) development	/	<b>2017.10</b>
Submit for consideration to MHE		<b>2017.10</b>
Approval from MHE		<b>2017.12</b>
Final version of Lecture plans (for each subject) developmen	t	<b>2018.05</b>
New master courses implementation		> 2018.09

### Master program: Technology in Medicine

II. CURRICULIM

	Student's workload (hours)									
Name of subjects and activities	Auditory lessons									
Tame of sangers and accordes		Total workload		Total	Lecture	Practice	Lab	Seminar	Course	Self- preparation
	Hours	%	Ĺ	Ä	P		Š	0 5	<u>ī</u>	
2	3	4	5	6	7	8	9	10	11	
General methodological subjects	528	35	360	130	220	10			168	
Socio-economic development strategy of Uzbekistan	58		40	20	20				18	
Methodology of scientific research	88		60	30	30				28	
Pedagogical technologies	58		40	20	20				18	
Practical English	148		100		100				48	
Information systems	60		40	20	10	10			20	
Culture of speech	58		40	20	20				18	
Patenting, Licensing and Certification	58		40	20	20				18	
Mandatory specialization subjects	668	44	380	180	140	60		1 cw	288	
Biomechanics	142		80	40	40				62	
Designing mechatronic systems for rehabilitation	126		60	20	40				66	
Image processing for human analysis	122		80	40	20	20		cw	42	
Programming real-time systems	122		80	40	20	20			42	
Virtual reality	156		80	40	20	20			76	
Elective subjects	316	21	260	140	60	60			56	
Physical human-machine interaction	120		120	60	20	20			20	
Introduction to neuro-sensori motor disorders	98		80	40	20	20			18	
Introduction to musculo-skeleton disorders	98		80	40	20	20			18	
Total	1512	100	1000						512	
Scientific activity	2700		1808						892	
The scientific-research work and the preparation of a master dissertatsiyasni	1890		1260						630	
Research and teaching activity	378		260						118	
Professional practice	432		288						144	
Total	4212		2808				<u> </u>		1404	

## Laboratory

BTS offer	Total Special Price for Uzbekistan project
BTS SMARTDX100 System with 4	
cameras	
Inertial sensor BTS G-SENSOR (with	
clinical protocols)	
Electromyography BTS FREEEMG1000	
10-channel, wireless,	
configuration system	
digital force platform BTS P-6000	
BTS NIRVANA System	
Total	36000 Euro

List of equipment for office

NN	Specification	Price (Euro)
1	Interactive Finger-tiuch projector Epson EB-595Wi, Resolution WXGA, 1280 x 800, 16:10, Luminosoty min. 3300 Ansi lumens. Software and accessories, interactive whiteboard, diagonal 254 cm, wifi connection	2682
	Ultrabook Asus ZENBOOK UX303UB-R4182T: Cod. 90NB08U1-M03570 Dimensione schermo: 13,3 "; Sistema operativo: Windows 10 Home; Tipo processore: Core i7; Touchscreen: No; Scheda grafica dedicata: 2 GB; Memoria RAM: 8 GB; HDD: 256Gb SSD;	1057
	Dell POWEREDGE T430-8258 - Formato: Tower; Processore: Intel; Modello Processore: E5-2609V3; N° Core: 6 processori; N° processori inclusi: 1; N° processori max: 2; RAM installata: 8 GB; Livelli RAID supportati: RAID 0, RAID 1, RAID 10, RAID 5, RAID 50; Capacità hard disk: 1+1=2 TB; Tipologia hard disk: HDD; N° dischi max: n.d.;	1200
		1299
5	APC BR550GI Power Saving Back-UPS Pro550 HGST TOURO DESK 4TB USB3.0 for periodical data backup	200
	Software for development of educational material for elearning modules - Articulate Studio '13 Standart - The easiest way to build presentation-based courses in PowerPoint.	999
7	2 ASUS AIO V230ICGK-BC097X Dimensione schermo: 23 "; Tipo Processore: Core i5; Sistema operativo: Windows 10 Home; Touchscreen: No; Scheda grafica: NVIDIA GeForce 930M; Modello processore: I5-6400T; Scheda grafica dedicata: 2 GB; Memoria RAM: 8 GB;	1800
8	APC BR550GI Power Saving Back-UPS Pro550	200
9	Ultrabook Dell XPS 13 9350 : od. 9350-4958 Dimensione schermo: 13,3 "; Sistema operativo: Windows 10 Pro; Tipo processore: Core i7; Touchscreen: Sì; Scheda grafica dedicata: Integrata; Memoria RAM: 8 GB; HDD: 256 Gb SSD; Marchio processore: Intel; Modello processore: I7-6600U;	1783
10	Brother MFC-J6520 DW with additional cartridges (XXL series for 1200 pages) LC1053PKS + LC109BK TP-LINK TD-VG3631 Wireless N300 VOIP ADSL2+ Moden Router	350 120
12	Samsung Galaxy Tab S 10.5 ", Octacore Quad 1.9 GHz, 3GB RAM Internal storage 16 GB, 4GLT and Wifi	600
	Total	11290

