CALLME
e-platform innovation medical engineering

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

CALLME

EC Project Number: 2022-1-RO01-KA220-HED-000087703

Project title:

Collaborative e-platform for innovation and educational enhancement in medical engineering

REPORT

Project Title	**Collaborative e-platform for innovation and educational enhancement in medical engineering**
Report	**Teaching activity: C1 course – Personalized bone implants design and manufacturing**
Date of Delivery	**January 2024**
Authors	**Velibor Isailovic**
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Contents

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1. *Description of CALLME Project*

The goal of the CALLME project is the implementation of a new educational methodology (NEM) and STEM (science, technology, engineering, mathematics) based on molecular (atomic) learning within the existing educational (teaching) processes in medical engineering. This methodology will have impact on several curricula and courses (which will be presented as project outputs). In addition to NEM, another important product will be an open e-platform (E-COOL) for cooperation and knowledge exchange, which will enable the application of NEM, a molecular network structure of elements belonging to the so-called the "triangle of knowledge" (business, innovation, higher education institutions), improvement of existing and creation of new curricula and programs at higher education institutions.

The objectives of CALLME project are: Formation of a network for medical engineering and education that will enable the exchange of knowledge and cooperation primarily between higher education, business and state institutions; Application of New Educational Methodology (NEM) and Science, Technology, Engineering and Mathematics (STEM) principles in existing learning material and formation of basic principles for creating future curricula for higher education and business sector; Creation of a web platform (E-COOL Smart Content Management System) that will enable the integration of the formed network and the application of principles for creating courses based on the NEM and STEM approach; Promoting network and NEM access and achieving sustainability using the developed E-COOL platform and other resources.

The consortium that was formed to realize this project consists of:

- Technical University of Cluj-Napoca, Romania, Romania (coordinator)
- University of Nis, Serbia
- Technical University of Riga, Latvia
- University of Dublin, Ireland
- University of Kragujevac, Serbia
- G.M Eurocy Innovations LTD, Cyprus

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2. *Summary of the teaching event*

Under the auspices of the University of Kragujevac, and especially at the Faculty of Engineering, a number of engineering study programs are accredited and implemented. In addition, a highly developed scientific field at the university is biomedical engineering. Initially, it was started and most developed at the faculty of engineering sciences, but through the program of master's and doctoral studies, it was spread to other faculties of the university in Kragujevac. Thus, the study program of doctoral studies in bioengineering field was created through the synergy of scientific knowledge, competences and individual skills from three different faculties: Faculty of Engineering, Faculty of Science and Faculty of Medicine. In order to attract students with different interests from different study programs, a lot of courses are offered in the form of electives at the lower levels of studies.

Thus, at the Faculty of Engineering, University of Kragujevac, there is a study program of bachelor studies in the field of computer technique and software engineering. This study program is accredited in the field of electrical engineering and generally attracts students with high grades from the previous level of education. Potentially, in the future, these students will represent a fairly large pool of candidates for master and doctoral study programs in the field of bioengineering. This is one of the reasons why this study group was chosen for the dissemination of the results of the CALLME project.

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3. *Attendance*

The teaching session was held at the Faculty of Engineering Sciences with a group of students from department of computer technique and software engineering. With this session, students had the opportunity to see examples of the application of engineering methods, techniques and tools in the field of biomedicine, in order to get a sense of what the field of biomedical engineering is all about.

It turned out that the students were not thoroughly informed about this topic, but they were very interested in the lecture. Judging by their activity during the session, and later through registration on the project platform, the project is already beginning to have its wider purpose, which is, among other things, creating a network of knowledge that will spread between business partners, clinics and higher education institutions.

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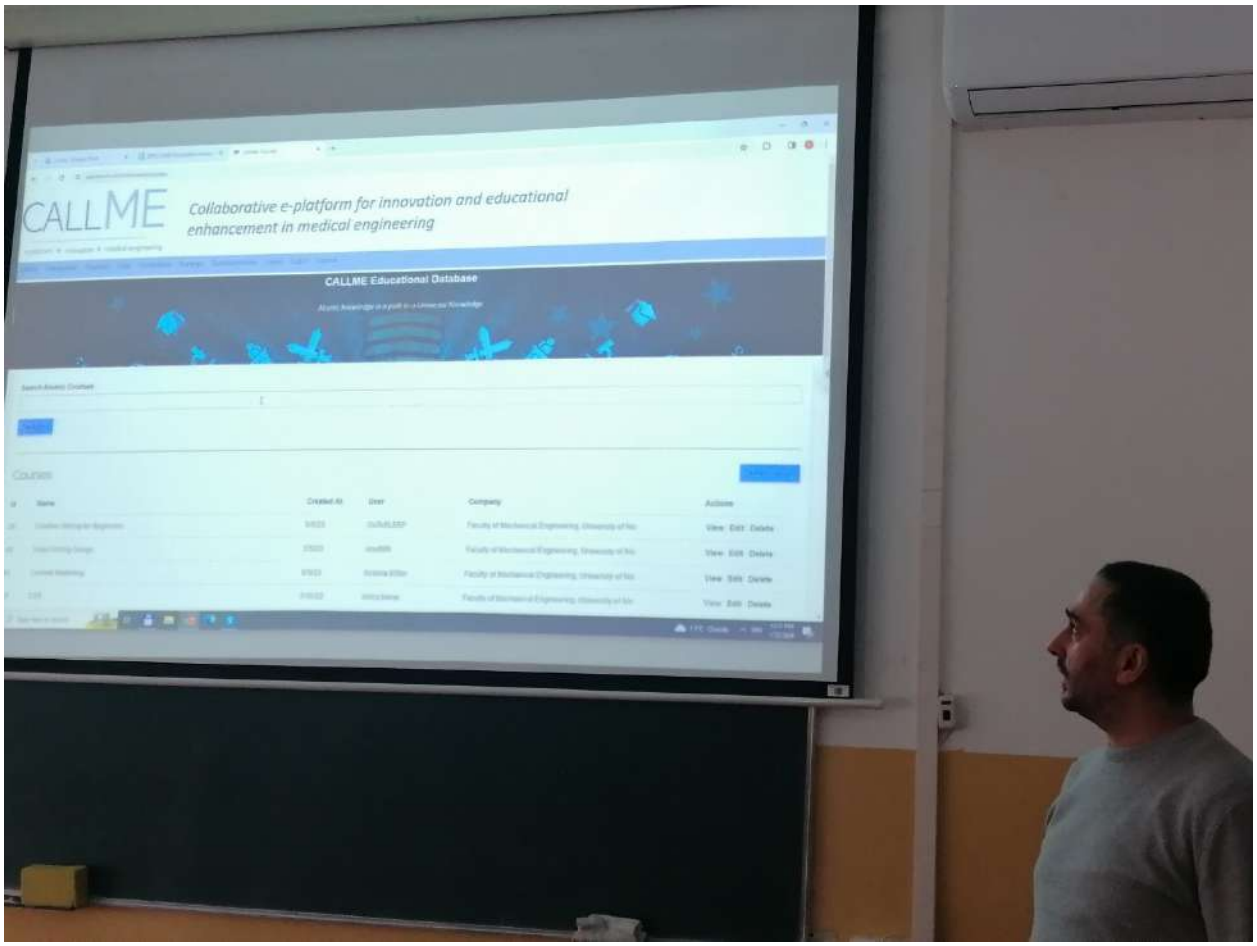

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Below is a list of students who attended the session where the C1 course – Personalized bone implants design and manufacturing, that was created as a result of the project, is presented.

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Title of the activity: Training
Starting date: 24.01.2024.
End date: 24.01.2024.
Place: Faculty of Engineering, University of Kragujevac

ATTENDANCE LIST
Teaching activity

No.	Participant name	Sending organization name	Sending organization address (city, country)	Participant signature
1.	Mila Vulević	UK	Kragujevac, Serbia	
2.	Nevena Đorić	UK	Kragujevac, Serbia	
3.	Tamara Arsenijević	UK	Kragujevac, Serbia	
4.	Katarina Jevtić	UK	Kragujevac, Serbia	
5.	Milunka Vasović	UK	Kragujevac Serbia	
6.	Ana Mijatović	UK	Kragujevac, Serbia	
7.	Milan Avramović	UK	Kragujevac, Serbia	
8.	Miroljub Tanasijević	UK	Kragujevac, Serbia	
9.	Ivana Stojković	UK	Kragujevac, Serbia	
10.	David Milić	UK	Kragujevac, Serbia	
11.	Emilija Vladenović	UK	Kragujevac, Serbia	
12.	Aleksandar Savić	UK	Kragujevac, Serbia	
13.	Miroslav Šundović	UK	Kragujevac, Serbia	
14.	Filip Lepović	UK	Kragujevac, Serbia	
15.	Petar Savić	UK	Kragujevac, Serbia	
16.	Marko Jovanović	UK	Kragujevac, Serbia	

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All personal data provided for registration for this event is collected during the implementation of the Erasmus+ Programme according to the regulations of the European Commission. They will be stored and processed by Velibor Isailovic in accordance with the provisions of Regulation (EU) 2018/1725 of the European Parliament and of the Council of 22 October 2018 on the protection of individuals with regard to the processing of personal data and on the free movement of such data. During the event, photos/ screenshots and/ or video recordings will be taken for use by the Velibor Isailovic for purposes related to the promotion and dissemination of results from projects funded by the Erasmus+ Programme. The materials will not affect your personal or institutional image. By registering for this event, you give your consent to be filmed and/ or photographed for the reasons mentioned above.

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4. Conclusion

As stated in previous sections, the main goal of the CALLME project is the implementation of a new educational methodology (NEM) and STEM (science, technology, engineering, mathematics) based on molecular (atomic) learning within the existing educational (teaching) processes in medical engineering.

Judging by audience activity during teaching session, and later through registration on the project platform, the project already achieve its main purpose, which is, among other things, creating a network of knowledge between university teachers, experts from industry and clinics and students interested and/or engaged in the field of biomedical engineering.

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