



OUR REFERENCE

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LEUVEN 2020-09-21

Letter of support**Monday, September 21, 2020**

To whom it may concern,

With this letter we want to support the application for the **accreditation of the educational and professional program "Telemedical and biomedical systems" in the speciality 172 "Telecommunications and radio engineering" in the field of knowledge 17 "Electronics and telecommunications" of the second (master's) level of higher education in the National University "Zaporizhzhya Polytechnic".**

At KU Leuven, in our faculty, we run the ADVANCED MASTER IN INNOVATIVE HEALTH TECHNOLOGY. Moreover, in the Master of Elektromechanics, we run the Focus of Clinical Engineering. From this expertise area we were asked to assess the application of the new educational program in NUZP.

The program proposed for accreditation is the result of joint efforts of Ukrainian, Israeli and European partners in the development of interdisciplinary medical and technical education in the European educational space. These efforts were carried out during the implementation of the joint ERASMUS+ project 586114-EPP-1-2017-1-ES-EPPKA2-CBHE-JP «Innovative Multidisciplinary Curriculum in Artificial Implants for Bio-Engineering BSc/MSc Degrees».

In Ukraine, and in Zaporizhzhia region, especially, with a fairly wide coverage of the specialities in purely medical care, there is poorly developed training for specialists in the design and maintenance of medical equipment, implants and prostheses. Such a situation impedes progress in the field of healthcare and reduces the possibilities of healthcare institutions in terms of using modern technology. Therefore one of the aims of the project was setting up educational possibilities in the medical-technical area according to the current level of development of electronics, information and communication technologies.

An important feature of the creation of this program was the principle of targeted sharing of European experience in teaching particular courses. Lecturers from the National University "Zaporizhzhya Polytechnic", as well as few other Ukrainian partner universities, got the trainings at leading European universities, during which the experience of teaching of the courses was transferred. The using of this experience in the form of separate modules was a prerequisite and is under the control of the corresponding ERASMUS coordination offices of the European Union and Ukraine. In particular:

- the part of modules for courses "Machine Learning and Artificial Intelligence" and "Biomedical signals, signal processing" originated and was trained in the Universidad Polytechnica de Madrid



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(Madrid, Spain);

- for courses "CAD of Biomedical Devices and Structures" and "Medical Information Infrastructure" - in the Katholieke Universiteit Leuven (campus De Nayer, Belgium);
- "Embedded Biomedical Systems and Wireless Sensor Networks" and "Methodology of Scientific Research" - in the Donau-Universität Krems (Krems, Austria);
- "Biomedical Materials and Constructions" and "Modern Nanotechnology" - in the Politechnica Krakowska (Krakow, Poland).

Another feature is the focus of ERASMUS projects on long and sustainable development of open educational programs. Therefore, for this project, national accreditation is one of the essential conditions for such development.

Summarizing the above, the opening of the interdisciplinary programs of medical - technical and medical - information - telecommunication direction is a modern and relevant approach not only for Ukraine but also for European countries and Israel.

Therefore, we recommend the program "Telemedical and biomedical systems" for accreditation.

Yours sincerely,

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