

International Summer School on Biomedical Engineering Held at Poznan University of Technology – Poland, July 21–31, 2025

From **July 21 to 31, 2025**, **Poznan University of Technology** (Poland) hosted an **international summer school** as part of the **ERASMUS+ KA220 BIOMEDIX project** titled “*Biomedical Innovations through Digital Transformation of Additive Technologies and Knowledge Exchange.*” The two-week event brought together students, professors, and company experts from eight countries to explore cutting-edge approaches in biomedical engineering, focusing on the integration of **CAD, 3D printing, medical imaging, and Mixed Reality** in the development of innovative medical devices.

The primary objective of the summer school was to equip participants with **practical skills and interdisciplinary knowledge** necessary for the development of personalized biomedical solutions, such as **custom orthoses, anatomical models, and implantable devices**. Hands-on sessions covered **advanced CAD modeling, segmentation of medical data, VR/MR simulations, and silicone casting of anatomical structures**. Students were guided by experts from academia and industry, working in teams to develop complete device prototypes using both digital and physical fabrication tools.

Throughout the summer school, students and staff had the opportunity to present and discuss **concepts for future diploma, master’s, and doctoral theses**, receiving valuable feedback and project development insights from consortium members. These collaborative discussions are expected to lead to continued academic and research cooperation among partner institutions.

The event also included a series of expert lectures, practical demonstrations, and guided lab tours. Participants gained direct experience with **state-of-the-art biomedical engineering facilities** and engaged in cross-cultural networking activities that fostered new academic and professional relationships.

The final day featured student team presentations of their developed projects, with awards granted for innovation, feasibility, and potential impact. These results will contribute to the broader goals of the BIOMEDIX project, supporting the development of **joint research activities, student theses, and scientific publications** during the project implementation period.

The event was attended by over 50 representatives from the BIOMEDIX consortium, including: **Riga Technical University** (Latvia – coordinator), **Poznan University of Technology** (Poland – host), **Technical University of Cluj Napoca** (Romania), **Universidad Politécnica de Cartagena** (Spain), **University of Niš** (Serbia), **Juraj Dobrila University of Pula** (Croatia), **ViscoTEC** (Germany), **Materialise** (Belgium).

The BIOMEDIX summer school was a major step in strengthening collaboration between higher education institutions and industry to drive biomedical innovation through digital transformation.











