ADVANCING TECHNICAL MEDICINE EDUCATION FOR PERSONALIZED 3D-PRINTED BREAST PROSTHETICS IN THE WESTERN BALKAN HEIs (TechMed3D)

2025.

PROJECT DESCRIPTION

The TechMed3D project aims to bridge the gap between technology and healthcare by developing a curriculum in technical medicine at higher education institutions in Bosnia and Herzegovina (B&H) and Albania (ALB). Addressing the lack of interdisciplinary education in medical technology and the underdevelopment of 3D printing applications, the project introduces three elective courses: Data-driven Decision Making, Image-guided Interventions, and Modeling & Design in Medicine. A key innovation is the creation of personalized 3D-printed breast prostheses to enhance post-mastectomy care. Activities of the project include curriculum development, academic staff training, industry and academia collaboration through Cluster formation, and student engagement, ensuring a modernized approach to technical medicine education. By implementing a structured governance and monitoring system, TechMed3D Cluster ensures high-quality education, industry collaboration, and patient-centered healthcare innovation. The initiative aims to train 10 staff members in medical technology, enroll 50 students per HEI in the new courses, and develop personalized breast prostheses with a target 80% patient satisfaction rate. The TechMed3D Cluster will foster collaboration between academia and industry. Aligned with EU priorities such as the Green Deal, Global Gateway Strategy, and European Research Area, TechMed3D promotes sustainability, innovation, and employability. The long-term impact includes potential clinical adoption of personalized prostheses and the creation of a spin-off startup, strengthening the intersection of engineering and medicine in the region.

Keywords: Technical medicine; 3D printing; Interdisciplinary education; Personalized prostheses

POZICIJA U PROJEKTU

Koordinator projekta

UČESNICI U PROJEKTU

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PROGRAM

Erasmus +

VRSTA FINANSIRANJA

Kompetitivno projektno finansiranje

IZVOR FINANSIRANJA

Evropska unija

STATUS PROJEKTA

U toku

BUDŽET PROJEKTA

599.670,72 EURA