European Commission
PROJECT 2024-1-LV01-KA220-HED-000255929
"Biomedical Innovations through Digital Transformation of Additive Technologies and Knowledge Exchange"

Subject: Hackathon on Biomedical engineering
Date: 22, 28-29 April, 2025
Place: Riga Technical University, Riga, Latvia

Area: Human Health Served with CAD-Assisted 3D Printing		
22 April, 2025 Remote session		
Central European Time	**Event**	**Location**
16:00-16:10	Opening address. Prof. Yuri Dekhtyar, Prof. Filip Gorski	
16:10-16:30	Aim and structure of Hackathon. Prof. Razvan Pacurar	
16:30-17:00	*Lecture:* "Generator of the Hackathon project topics". Prof. Joaquín Francisco Roca González	
17:00-17:30	*Lecture:* "Automated design of anatomically customized structures based on data from anthropometric measurements". Prof. Filip Gorski	
17:30-17:40	Arranging of the teams (5 teams).	
17:40-18:00	Administration of Hackathon, MSc Mark Gorohov	
22-27 April 2025 Remote session for students only		
Time is arranged by students	**Hackathon Session 1** - Generation of innovative ideas on new types of CAD structures for 3D printing / 3D bioprinting	
28 April, 2025		
8:00-8:30	Participant registration and distribution of materials.	Ķīpsalas str. 6a, room 143
8:30-8:45	Welcome Address. MSc Marks Gorohovs, Prof. Razvan Pacurar	
8:45-9:00	Administration of Hackathone, MSc Marks Gorohovs	
9:00-9:30	*Lecture:* "Collaborative Innovation: Exploring 3D Printing and Bioprinting Technologies for Medical Applications". Prof. Razvan Pacurar	
9:30-10:00	*Lecture:* "Application for human model recognition, web-based technology approach". Prof. Sven Maricic	
10:00-10:30	*Lecture:* "Introduction to additive manufacturing with fluids and pastes". Felix Gruber (remote)	
10:30-12:30	**Guided tour around RTU facilities:** 10:30-10:00 – Biomedical and Nanoengineering Laboratory. Prof.	P. Valdena str. 1, room 210, 109, 307

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	Yuri Dekhtyar. 11:00-11:30 – 3D concrete printing laboratory. Rihards Bendrāts. 11:30-12:00 – X-Ray / CT room. MSc Marks Gorohovs. 12:00-12:30 – Baltic Biomaterials Centre of Excellence. Dr. Arita Dubņika.	P. Valdena str. 3
12:30-13:30	**Break**	–
13:30-17:30	**Hackathon Session 2** - Development of the concept and possible solutions	Ķīpsalas str. 6a, room 143
29 April, 2025		
8:00-8:30	*Lecture:* "EU Regulations for Bioprinting". Prof. Joaquín Francisco Roca González	Ķīpsalas str. 6a, room 254
8:30-9:00	*Lecture:* "AI-Driven Reverse Modeling of Human Bones: Advanced Methodologies and Applications", Prof. Nikola Vitkovic	
9:00-12:00	**Hackathon Session 3** - Refinement and preparation	
12:00-13:00	**Break**	–
13:00-15:30	RTU Student Scientific and Technical conference. Section Biomedical Engineering. Presentation of projects at the conference	Ķīpsalas str. 6a, room 254
15:30-16:00	**Break**	–
16:00-18:00	Award Ceremony and dinner	P. Valdena str. 1, 3rd floor terrace