MSc program "Biomedical Engineering and Technology"
Department of Biomedical Engineering
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Indicative Diploma Thesis Titles, academic year 2025-2026

	Supervisor	Indicative Diploma Thesis Title	Required knowledge / Type of thesis
1	Cristina Soguero	Multimodal interpretable machine learning methods for early prediction of chronic diseases	Programming, machine learning
2	Cristina Soguero	Fusion and interpretable learning methods for identifying melanoma	Programming, machine learning
3	Luis Coelho	Depression Detection based on EEG	Programming, machine learning
4	Luis Coelho	Detection of Parkison disease using voice	Programming, machine learning
5	Charis Mesaritakis	Neuromorphic algorithms (spiking neural networks) and hardware for particle detection in imaging flow cytometry data	Programming, machine learning
6	Charis Mesaritakis	Spatial neuromorphic photonic system for high-speed image analysis	Machine learning, electronics/ simulation and experimental
7	Charis Mesaritakis	Photonic Evanescent bio-sensors based on high Q-cavities	Programming, simulations, optics
8	Evangelia Pantatosaki	Hierarchical modeling of novel biomaterials in targeted therapies and gene vaccines	Programming, shell scripting / computational
9	Evangelia Pantatosaki	Machine learning for biomolecular, biophysical, and biomaterials research	Machine learning, python / computational
10	Evangelia Pantatosaki	Design, 3D printing and mechanical characterization of tissue engineering scaffolds	3D printing, mechanical testing / experimental
11	Spiros Kostopoulos	Topics in Medical image analysis	Biostatistics, Machine learning / experimental
12	Spiros Kostopoulos	Radiomics in oncology studies	Biostatistics, Machine learning / experimental
13	Klaus Peter Koch	Investigation of mechanical artifact on electrodes	Matlab / experimental work
14	Klaus Peter Koch	Physics-informed neural network, Application: Electrical impedance tomography. Data from experiment	machine learning, AI-software
15	Klaus Peter Koch	Physics-informed neural network, Application: field distribution during electrical stimulation. Data from experiment	machine learning, AI-software
16	Klaus Peter Koch	Physics-informed neural network, Application: field distribution during electrical stimulation. Data from FEM simulation (Comsol)	FEM, machine learning, AI-software

17	Dimitris Glotsos	Modeling of Tai Chi biomechanics using motion capture system tracking data	Matlab, Arduino, microprocessors / experimental
18	Dimitris Glotsos	Schizophrenia diagnosis using voice recognition	Matlab, machine learning / experimental
19	Irina Tache	Cardiovascular risk assessment from clinical data extracted from echocardiography	Image analysis / experimental / collaboration with Physican
20	Irina Tache	Pollution influence in developing chronic diseases	Data analysis / Programming
21	Irina Tache	Automatics in the human body	Simulink/ modelling