

Engineering Systems



Full Name	Advisor / Co-adviser	Thesis Title	
Denis Grankin	Evgeny Burnaev / Dzmitry Tsetserukou	Bridging the Gap between Multi View RGB- and RGBD-based Neural Implicit Surface Reconstruction	
Yunseok Park	Evgeny Burnaev / Clement Fortin; Dmitrii Shadrin	GAN-based Multi-Image Super-Resolution of Remote Sensing Imagery	
Gelila Biramo	Fortin Clement	Implementation of Set Based Concurrent Engineering (SBCE for Aerospace Products	
Rimma Ishberdina	Minguez Ferrer / Clement Fortin	Lidar-based Pedestrian Detection for Social Robot Navigation	
Maxim Bardovskiy	Clement Fortin	Lean Agile PLM Approach for Autonomous Systems Development in Small Teams	
Dmitrii Ershenko	Clement Fortin	Integration of the SAPPhIRE Model for Building Digital Twins	
Mikhail Rybiyanov	Clement Fortin	An Analysis of Software Tools for Requirements Traceability in CubeSat Projects	

Full Name	Advisor / Co-adviser	Thesis Title	
Dmitriy Bugrov	Henni Ouerdane / Yuriy Lyulin	Development and Testing of a Cooling System Based on Contour Heat Pipes for CubeSat	
Olga Shalopanova	Henni Ouerdane / Yuliy Berkovich	Development of Measurement Methodology and Hardware for Crop Lighting Optimization Inside Plant Growth Chamber for Space-purposed Advanced Life Support Systems	
Anna Shkromada	Henni Ouerdane / Pavel Osinenko	A Bio-inspired Nonlinear Model Predictive Control-based Center of Mass Motion Planner for a Quadrupedal Robot: Energy Efficiency Optimization	
Ivan Apanasevich	Pavel Osinenko	Utilization of Pre-trained Vision Models in Diffusion Models for Robotic Manipulation	
Sergei Davidenko	Pavel Osinenko	Hardware-software Complex for Joint Operation and Communication of RGB(D Cameras in Robotics	
Muhammad Afaq	Andreas Panayi / Clement Fortin	Evaluation of the Suitability of Additive Manufacturing for CubeSat Structures	

Full Name	Advisor / Co-adviser	Thesis Title	
Zaina Abu-Shaar	Tatiana Podladchikova / Dmitry Ris	Space Mission Design for the SOLar Flux Observation Network (SOLFON)	
Hoor Bano	Tatiana Podladchikova / Dmitry Ris	Development of Attitude Determination and Control System for Skoltech-F CubeSat	
Matvei Morkovnikov	Tatiana Podladchikova / Dmitry Ris	Design and Vibrational Study of Deployable Solar Panels for “Skoltech-f” Cubesat Project	
Ilya Novikov	Tatiana Podladchikova / Dmitrii Shadrin; Svetlana Illarionova	Water Quality Monitoring Using Limited Labeled Hyperspectral Remote Sensing Data	
Hadya Yaseen	Tatiana Podladchikova / Alexey Salimon; Dmitry Ris	S-band Patch-Antenna for CubeSat Communication System	
Anna Iliushina	Andrey Somov	Data-centric Approach for Instance Segmentation and Brand Classification in Optical Waste Sorting	

Full Name	Advisor / Co-adviser	Thesis Title	
Ali Alabbas	Dzmitry Tsetserukou	Wearable Robotic Systems with Motion Capturing and Haptic Display for Intelligent and Safe Human-Robot Interaction	
Artem Bazhenov	Dzmitry Tsetserukou	LLM-based Mobile Robotic System for Human Assistance	
Vladimir Berman	Dzmitry Tsetserukou	Development of Mission Planner for Mobile Robot based on Robotics Transformer Model	
Vladislav Cheremnykh	Dzmitry Tsetserukou	NeRF-based Segmentation of 3D Environment for Robot Training	
Maria Dronova	Dzmitry Tsetserukou	NeRF-based 3D Reconstruction of Complex Environments by Heterogeneous Robotic System	
Ziang Guo	Dzmitry Tsetserukou	Low Light Enhancement for Visual Perception of Self-Driving Car Based on Vision Transformer	
Mikhail Konenkov	Dzmitry Tsetserukou	Development of AI-driven Virtual Reality System based on Visual Language Model	
Alexey Kotcov	Dzmitry Tsetserukou	NeRF-based Human Body Reconstruction with Swarm of Drones for Future Communications Systems	

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Mikhail Litvinov	Dzmitry Tsetserukou	RGB-D SLAM with Voxel-based Neural Representation of Semi-Static Environments for Quadruped Robot Navigation	
Artem Lykov	Dzmitry Tsetserukou	Large Multimodal Model based Operating System to Endow Any Type of Robot with Generative AI	
Peter Robinroy	Dzmitry Tsetserukou	DRL-based Drone Landing on Moving Platform with 3D Downwash Effect	
Sergei Satsevich	Dzmitry Tsetserukou	Development of 3DoF Leg of Quadruped Robot Capable of Surface Recognition with Gated Recurrent Units and Real-to-Sim Transferring	
Demetros Tareke	Dzmitry Tsetserukou	A Local Path Planner with Collision Avoidance Based on Multi-Agent Deep Reinforcement Learning for Drone Swarm Landing	