

KARL STORZ VIDEO ENDOSCOPY ESTONIA offers the following topics and options for bachelor's and master's theses:

Subject/Thesis	Degree	Period when, years	Estimated duration, months	Prerequisites
<i>"High-frequency electrosurgery compatibility of video images in endoscopy"</i>	MSc/thesis	2025-2026	12	-Background in Electronics -Background in Electronics signal processing -Self-motivation and the ability to work independently. -Innovative problem-solving ability, boldness to come up with unconventional solutions. Nice to have: -Background from image sensor world -Image processing experience
<i>"Design of a polymer lens system for a single use instrument"</i>	MSc/thesis	2026	12	-Background in Optics -Self-motivation and the ability to work independently. -Innovative problem-solving ability, boldness to come up with unconventional solutions. Nice to have: -Proficiency in Computer-Aided Design (CAD) -Background in Material Science
"Extrusion Process Design - evaluation of the effect of parameters change on product properties"	MSc/internship	2027	6	-Topic for MSc -Background in Mechanical Engineering -Ability to analyze and evaluate process Nice to have: Background and interest in mechanical engineering, process improvements
"Use of improved steel instead of hardened steel - effect on mould endurance"	MSc/thesis	2026	6	-Topic for MSc -Background in Material Science/Mechanical Engineering Nice to have: Background and interest in material science
Antibacterial TiAgN coating on stainless steel components in a cleanroom	MSc/thesis	2025-2026	6	-Topic for MSc -Background in Material Science/Mechanical Engineering Nice to have: CAD design skills (preferably Solidworks)

Antibacterial Additives for 3D Printable Plastic Materials	MSc/thesis	2025-2026	6	<p>-Topic for MSc -Background in Material Science/Mechanical Engineering</p> <p>Nice to have: CAD design skills (preferably Solidworks)</p>
Design and development of Automated Assembly process for SSU endoscope shaft assembly.	BSc/thesis	2026	6	<p>-Background in mechanical engineering. -CAD design skills (preferably Solidworks). -Ability to analyse, evaluate and design production processes. -Ability to research and find already existing solutions and technologies that can be used for solving given challenges. -Willingness to learn.</p> <p>Nice to have: Knowledge of production automation: robotics, controllers, sensors.</p>
Evaluation of Product Interfaces for Ultrasonic Welding Integration in Automated Assembly	MSc/thesis	2026	6	<p>-Background in mechanical engineering. -CAD design skills (preferably Solidworks). -Ability to analyse, evaluate and design production processes. -Ability to research and find already existing solutions and technologies that can be used for solving given challenges. -Willingness to learn.</p> <p>Nice to have: -Knowledge of production automation: robotics, controllers, sensors. -Knowledge / experience in ultrasonic technology.</p>
Development of method for calculating the CO2 footprint of KSVVE SSU production	BSc/thesis	2026-2027	6	<p>-Fundamentals of sustainability or environmental science. -Competence in basic research methods. -Ability to collect, analyse and model data. -Familiarity with Life Cycle Assessment methodology and sustainability metrics. -Willingness to learn.</p> <p>Nice to have: Knowledge of local and global environmental standards.</p>