I applied to the ETU master's degree course straight after graduating from ETU with a bachelor's degree “Control in Technical Systems”.

My field of investigation deals with power electronics and power generating.  I am currently carrying out research work to improve the efficiency of diesel generators. In this context, efficiency can be defined as the amount of fuel consumption compared to the amount of generated power. The goal of this work is to prove or disprove the hypothesis that maintaining the rotation frequency of the generator shaft within certain limits will lead to increased efficiency.

I am conducting research under the supervision of the deputy head of the Department of Automatic Control Systems and graduate student Mikhailov Danil Pavlovich. My research group consists of four members.

To obtain a result, it is necessary to collect data on the operation of a diesel generator over a wide range of rotation speeds and power outputs. We need to measure fuel consumption, current and voltage under load, rotational speed, and other related parameters.

To conduct a series of experiments in order to measure the required parameters, it is necessary to complete a number of tasks. To make a contribution to the problem solution, I`m developing a program for recording, visualizing, and processing data from sensors in real-time.

If the hypothesis is proven, this would increase the continuous operation of diesel generators for autonomous facilities that are not connected to the outside world. At the same time, the frequency of fuel deliveries could be reduced, resulting in lower costs.