As part of this final qualifying work, a system for recognizing point markings on ferrous metal surfaces was developed.

The first chapter analyzes the terms of reference and sets out the requirements for the system being developed. The second chapter describes the algorithms used in the development, and also describes the process of finding and generating a dataset for training and testing the operation of a neural network. The third chapter describes the implementation process of the developed recognition system, and also provides the results of testing the system using unprocessed and preprocessed images.

The explanatory note consists of 33 pages, contains 27 figures, 3 tables and 9 literature sources.

This work is aimed at acquiring skills in the field of digital image processing and the use of neural networks for the tasks of object recognition in digital images.