

ABSTRACT

Work carried out on 58 pages containing 28 figures, 2 tables. The paper was written with references to 9 different sources.

5G will start the Fourth Industrial Revolution and change the economy because of new capabilities. It will change traditional concept of telecommunications. An efficiency will be also greatly increased by higher speeds and lower latency. Data will be greatly increased too and that's why machine learning exists. The data should be analyzed and processed in a short time period. The main advantages of machine learning are high speed, self-dependence and ability to adapt to changes without significant operator intervention.

The purpose of the bachelor's thesis is to describe using of machine learning algorithms for the 5G telecommunication systems.

The work discusses 5G systems, billing and subscribers management. Machine learning tasks, methods, algorithms and models were analyzed too. As a result, the prediction models analysis of subscribers chosen plan was carried out for two classes with machine learning.

Keywords: 5G, machine learning, Python, billing, classification, SKLearn.