

**Abstract**

This research project provides an analysis of the quality in telecommunication networks. There is the technical Huawei equipment used in the project. According to statistics on the data of communication quality and data taken from meters, the technical indicators of quality in mobile communication were calculated and their improvement was implemented by the physical works on the network and the introduction of additional counters. Also the simulation model in mobile network of GSM standard was developed. The section "life safety" includes the analysis of potentially hazardous and harmful factors affecting operators, with calculations of artificial lighting and air conditioning systems. The absolute economic efficiency of capital investments was calculated, and the payback period was defined in the business plan.