## **Abstract**

In the dissertation work, the issue of planning experiments with simulation models is considered. The paper investigates the possibilities of planning experiments with simulation models in the GPSS World environment. A model of a telecommunications system as a Queuing system (QMS) has been developed. The analysis of the current state of experiment planning is carried out. The variance analysis of the simulation model in the GPSS World environment is presented. In the course of the study, a simulation model of the M2M network was built in the GPSS WORLD program.