

ABSTRACT

The master's thesis consists of an introduction, the main part of six chapters, conclusions and a list of used literature. The thesis contains 88 pages, 26 figures, 25 tables and 11 references.

The purpose and tasks of the master's thesis. The aim of the dissertation is the development of an automated air quality control system in an office space.

Master's thesis tasks include:

- introduction to the field, practical value and purpose of the system;
- consideration of the main requirements for air quality in the office premises, classification of types of office premises. Determination of negative factors affecting quality and their types. Description of the concept of automated air quality management;
- analysis of methods of measuring parameters of air quality parameters. Ensuring performance of measurement;
- development of a structural diagram of the air quality control system in the office premises;
- development of a functional scheme of the air quality control system in the office premises;
- development of the algorithm of the automated air quality management system in the office premises;
- development of a startup project based on the developed automated management system.

The object of the study is the process of air quality control in an office space using an automated control system.

The subject of research is an automated air quality control system in an office space.

Practical significance of the results:

- a structural diagram of the automated air quality management system in the office premises (AAQMSiOP) was developed;
- the functional scheme was developed, the work algorithm was made, and the block diagram of the AAQMSiOP work algorithm was built;

Keywords: automated control system, indoor air quality, measurement automation, air quality control.