ABSTRACT

attestation master's dissertation on the topic

"Distributed systems for water quality monitoring and management"

CIBERNETICS, CHEMICAL AND TECHNOLOGICAL PROCESSES, COMPUTER-INTEGRATED SYSTEM, MONITORING, QUALITY INDICES, WATER RESOURCES, WATER OBJECTS, KHMARNI CALCULATIONS, DATA BASIS, CLIENT-SERVER ARCHITECTURE.

Thesis consists of introduction, 4 sections, conclusions, list of used sources (28 names) and 5 applications. The main content is set out in 95 pages of the printed text, containing 40 figures, 2 tables. Total volume of dissertation 130 pages.

The object - computer systems for maintaining the operation of water objects

The purpose is to develop the structure and principles of constructing a distributed monitoring and management system for water objects.

Interconnection with other works.

The research work was carried out jointly with the State Institution "Institute of Environmental Geochemistry of the National Academy of Sciences of Ukraine".

Scientific novelty of the results. A new visualization program for monitoring water objects has been developed, which, unlike existing ones, allows centralized storage of data from different sources for obtaining data on the status of a water object, provides an opportunity for operative remote access and provides data analysis, and also allows generate reports on data stored in the database system. The algorithms of data processing in the information system are developed.

A database structure has been created that specifies the work of a universal computer-integrated system for monitoring water objects.

The algorithms for the analysis of water quality parameters are developed.

Scope of application.

The structure of the computer-integrated system of monitoring and analysis of the quality of water objects is developed, a database for monitoring water objects is implemented.