

ABSTRACT

The thesis is presented in 47 pages. It contains 2 appendixes and bibliography of 14 references. Six figures and 2 tables are given in the thesis.

The main aim of my thesis is to develop mathematical models and the respective software tools in order to automate the workspace of an Emergency dispatcher to achieve the most efficient

A specific analysis of the well-known existing mathematical and software solutions for the workspace automation task at the Emergency Dispatcher desk was performed. The main functions for automation are information retrieval, its analysis, storing and highly intellectual data visualization and data manipulation processes to output well structured, formatted and clearly understandable sets of data for a faster performance of an Emergency dispatcher.

The Principle of Sustainability was applied to the development of an Automated Workspace for an Emergency dispatcher as the Key Value for the full project lifecycle to ensure uninterrupted functioning and to keep its performance level not lower than 85% of the scope/quality per single dispatcher unit in Emergency Agency with no risk in case of any either internal or external influencing factors. Thus, a fresh developed automated system was built based on real world needs and respective methods as of our choice. Testing and integration were simulated on real datasets for 2018.

Keywords: AUTOMATED WORKSPACE, DISPATCHER, EMERGENCY AGENCY OF UKRAINE, INFORMATION PROCESSING, DATA VISUALIZATION.