

ABSTRACT

Master dissertation: 89 pages, 19 figures, 12 tables, 2 applications, 15 sources.

The relevance. The problem of queuing is acute in all mass service systems and is global because it has a profound effect on the performance of almost any enterprise. This paper describes the creation of a system for issuing recommendations for queuing management in mass service systems. Such a system can be used in transport stations, shopping malls and shops, resorts and places of mass recreation, etc., provided that there is an opportunity for operative monitoring of human flow and equivalence of queues.

Purpose and objectives of the study. The goal is to create an effective system for issuing recommendations for monitoring queues in the mass service system. To achieve the goal you need to solve the following tasks:

- to investigate the subject area of modern methods of queue management and consider in detail the existing practices in various fields of mass service systems;
- to develop and implement a model for emulating the work of the mass service system;
- develop and implement a system for processing information from surveillance devices to complement the data in the model;
- to develop and implement an algorithm for issuing recommendations for choosing queues based on the created model;
- develop a mobile application for use of the created service;
- carry out an experimental study of the developed system.

The object of study is systems for issuing recommendations and queuing management in mass service systems.

The subject of study is the development of a system for issuing recommendations based on the created model of mass service system to emulate its work.

Relationship with scientific programs, plans and themes. The work was carried out at the Department of Computer-Aided Management and Data Processing Systems of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute».

Scientific novelty of the results is development and implementation of a system for issuing recommendations for queue management based on the created model of the system of mass service for emulation of its work

Publications. Work results are published in conference abstracts of «INFORMATICS AND COMPUTER TECHNOLOGY – ICT-2018» and «ICSFTI2018: THE INTERNATIONAL CONFERENCE ON SECURITY, FAULT TOLERANCE, INTELLIGENCE».

QUEUEING SYSTEM, QUEUE, RECOMMENDATION SYSTEM,
SYSTEM MODEL