TASKS

Topic 1. Intelligent information system for monitoring tourist routes

Goal: The goal of this project is to develop an intelligent monitoring system for tourist routes in mountainous regions for early detection of cases of leaving the trails

Tasks:

STAGE 1 (08-23.02.2024)

1. Recognize unique people from camera footage.

2. Build the route traveled by unique people.

Stage 2 (02/24/2024-03/06/2024)

3. Identify cases of people leaving existing routes when they are absent from camera recordings for a long time

Topic 2. "Development of an <u>AI</u> application for personalized educational recommendations"

The goal of the project: to create a prototype of an artificial intelligence-based application that analyzes student learning preferences and performance in order to offer personalized recommendations on educational materials, courses and teaching methods. The application must be able to:

Tasks:

STAGE 1 (implementation period 08-23.02.2024)

1. Collect and analyze data about the user's preferences and academic activities.

2. Use machine learning algorithms to generate personalized offers.

Stage 2 (implementation period 02/24/2024-03/06/2024)

3. Provide the user with a convenient interface for interacting with the system and receiving recommendations.

Topic 3. "AI for optimizing public transport schedules"

The goal of the project: to create a system based on artificial intelligence that analyzes data on passenger traffic, schedules and public transport routes to optimize their efficiency. The project includes:

Tasks:

STAGE 1 (implementation period 08-23.02.2024)

1. Development of algorithms for analyzing data on public transport traffic and passenger flows.

2. Application of machine learning methods to predict peak loads and optimize traffic intervals.

Stage 2 (implementation period 02/24/2024-03/06/2024)

3. Creation of an interface for urban transport planners to view analytical data and suggestions for improving schedules.

Topic 4. Development of a classification model for steganography methods using deep neural networks

Goal: The goal of this project is to develop a pattern classification model to identify the applied steganography method

Tasks:

STAGE 1 (08-23.02.2024)

A ready-made dataset of pictures is provided, encrypted with different steganography algorithms.

1. - Data analysis and visualization

2. - Data preprocessing
3. Classifier training based on deep neural networks

Stage 2 (02/24/2024-03/06/2024)
4. Demonstration of the operation of software that allows classifying steganography methods, presentation of the model/ensemble.