

Intelligent Driver Status Monitoring System

Melnikova, Diana (School: Ozat Boarding School of Information Technology)

Utegenova, Kamila (School: Ozat Boarding School of Information Technology)

Various car companies believe that driver monitoring systems are ineffective, so they try to introduce as much automation into cars as possible. The problem can be solved by creating an intelligent system that monitors the health of the employee, his behavior and attention at the wheel, warning the driver about emergency situations would be an undeniably good solution to the problem. For example, a comparison of ways to introduce automation into systems; therefore, in the course of research work, the following goal was set to develop an intelligent system for monitoring the driver's condition, contributing to the reduction of road accidents and facilitating the work of transport companies. To achieve the goal, we have completed the following tasks: we studied the technology of driver status monitoring systems, their features and advantages; developed an algorithm for the operation of our own intelligent driver status monitoring system; studied the literature on the Arduino robotics kit, selected the necessary information for the project implementation; studied the C++ software and its libraries; developed a program algorithm; tested the program; developed the material part of the project (installation); tested the operation of an intelligent driver status monitoring system. And having completed all of the above tasks, we got the following results: we have found a solution to the problem of transport companies-driving cars by strangers; providing video evidence to resolve disputes; the ability to track cars by GPS; monitoring the driver's health, behavior and attention; carrying out transportation has become less dangerous; warning the driver about emergency situations.