



TrafficSupervision

— ICYS 2022 —



Purposes

The aim of the project is to reduce the number of road accidents in risky situations in urban areas, which according to the statistics of the Ministry of Interior are increasing every year. Another goal we have set is to optimize the path of ambulances by reducing the time it takes them to reach their final destination by improving their communication with faster controllers and providing them with a completely safe road with the help of automatic barriers.

Used technologies



Abstract

Road accidents are a common problem caused by the inattention of some drivers. A solution for avoiding such situations is presented in the project. A road network has been simulated in order to illustrate and get as close as possible to some real situations, which gives the user the opportunity to gain a better view of the idea and allows us to perform experiments to analyze each particular case. Ambulances are examined in more detail, for which an algorithm has been developed to provide them with a fast and safe road. Ambulances often fail to arrive on time as a result of a lack of a GPS system and heavy traffic in urban areas. The idea is to add automatic barriers to further regulate traffic and reduce accidents at major intersections where the risk of such is high. Developed is a site, which could be used for communication between these barriers and emergency services.



Future development

- ▶ increasing the scale of the road network
- ▶ consideration of more cases
- ▶ detection of risk situations by cameras
- ▶ use of real data



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