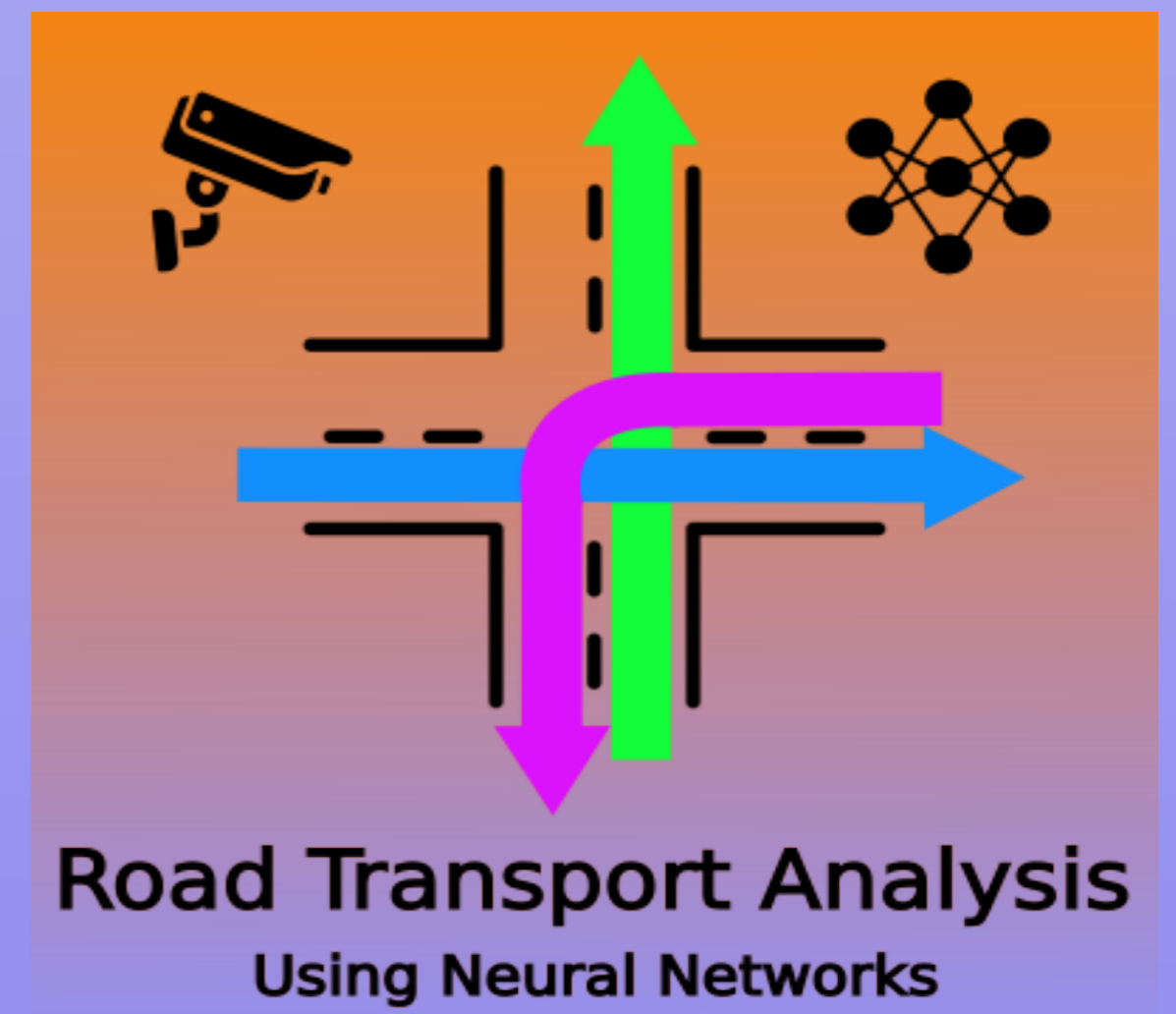


# Road Transport Analysis Using Neural Networks

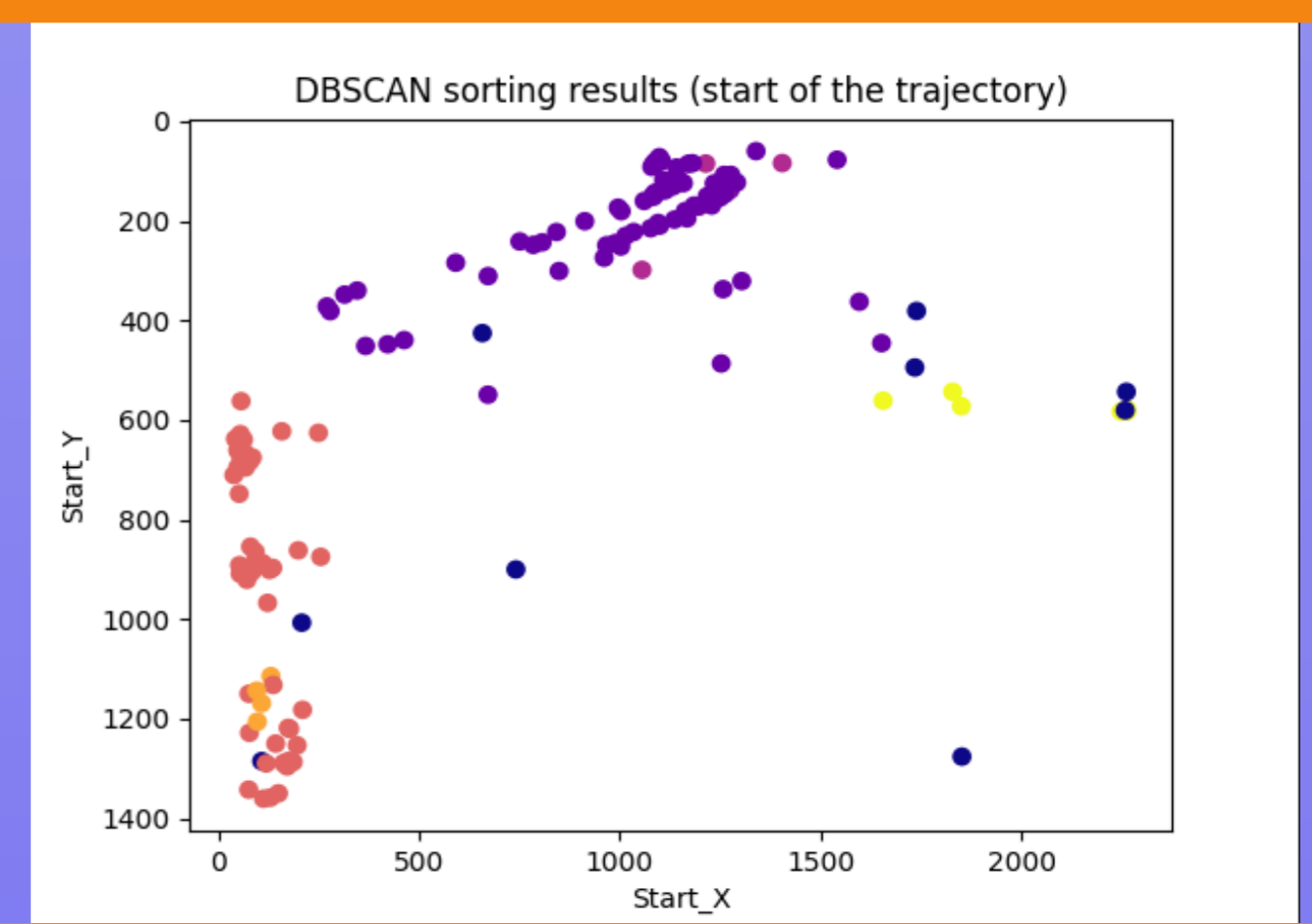
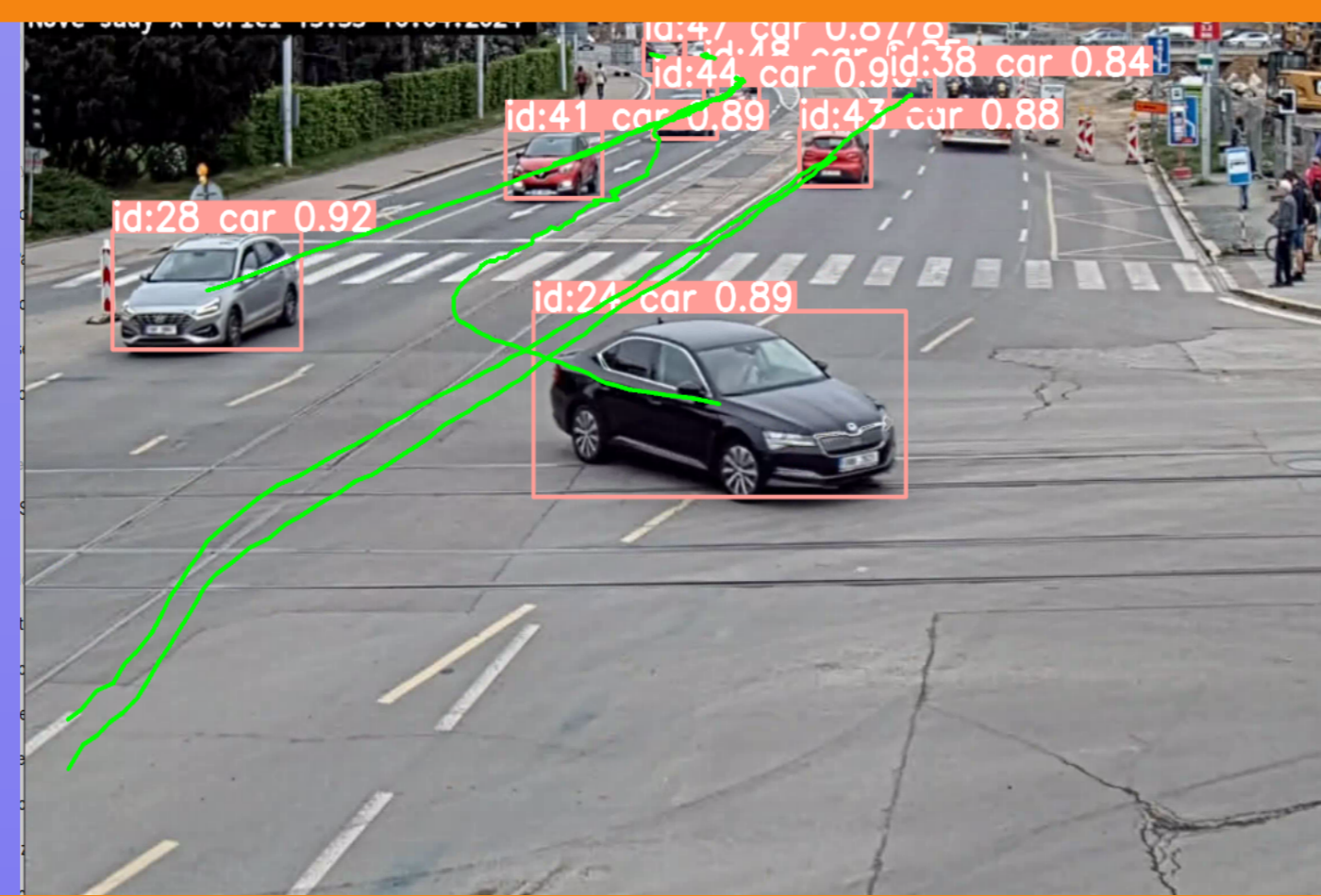
**Daniel Žárský**

Supervisor: doc. RNDr. Pavel Smrž, Ph.D.

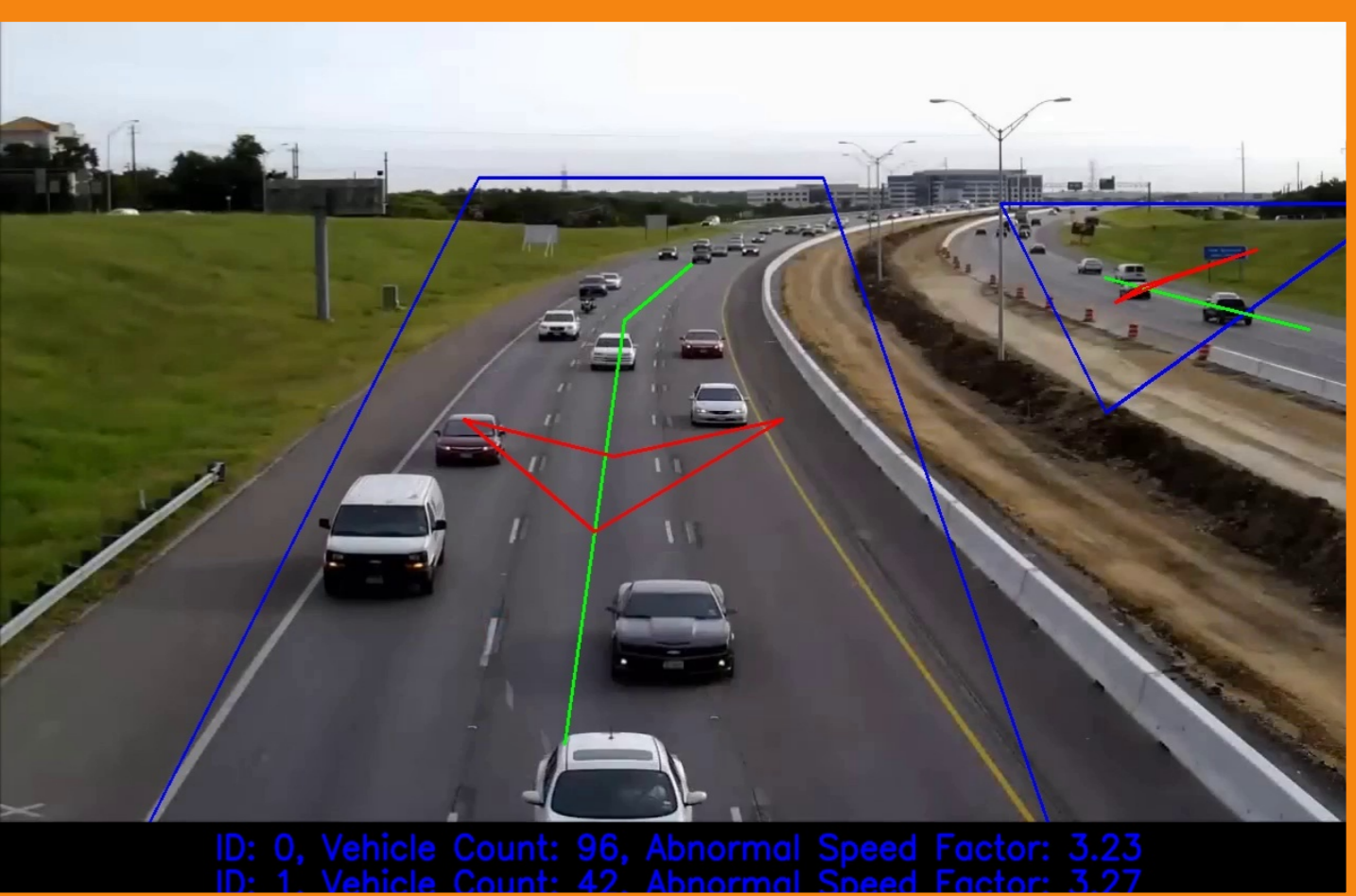
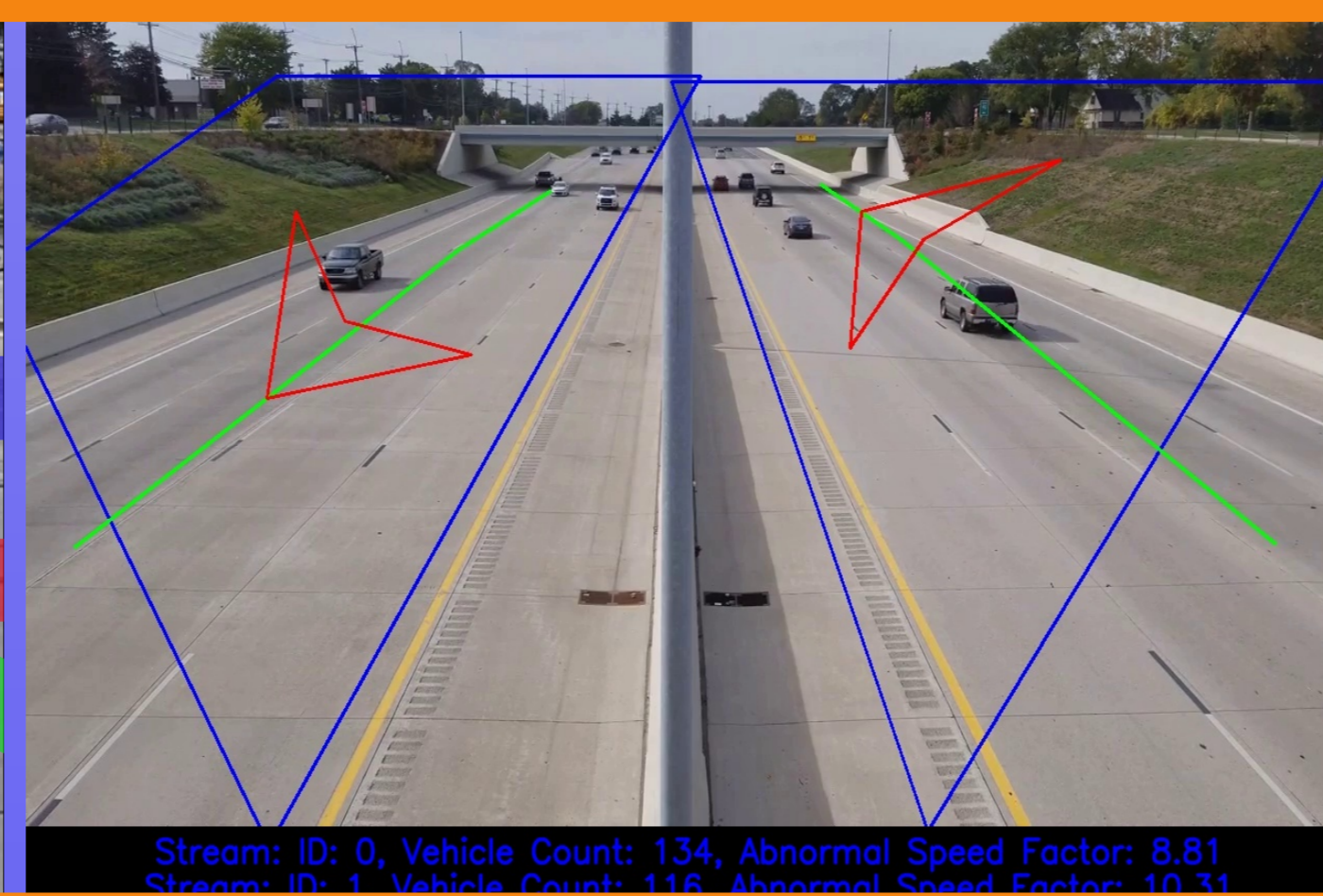
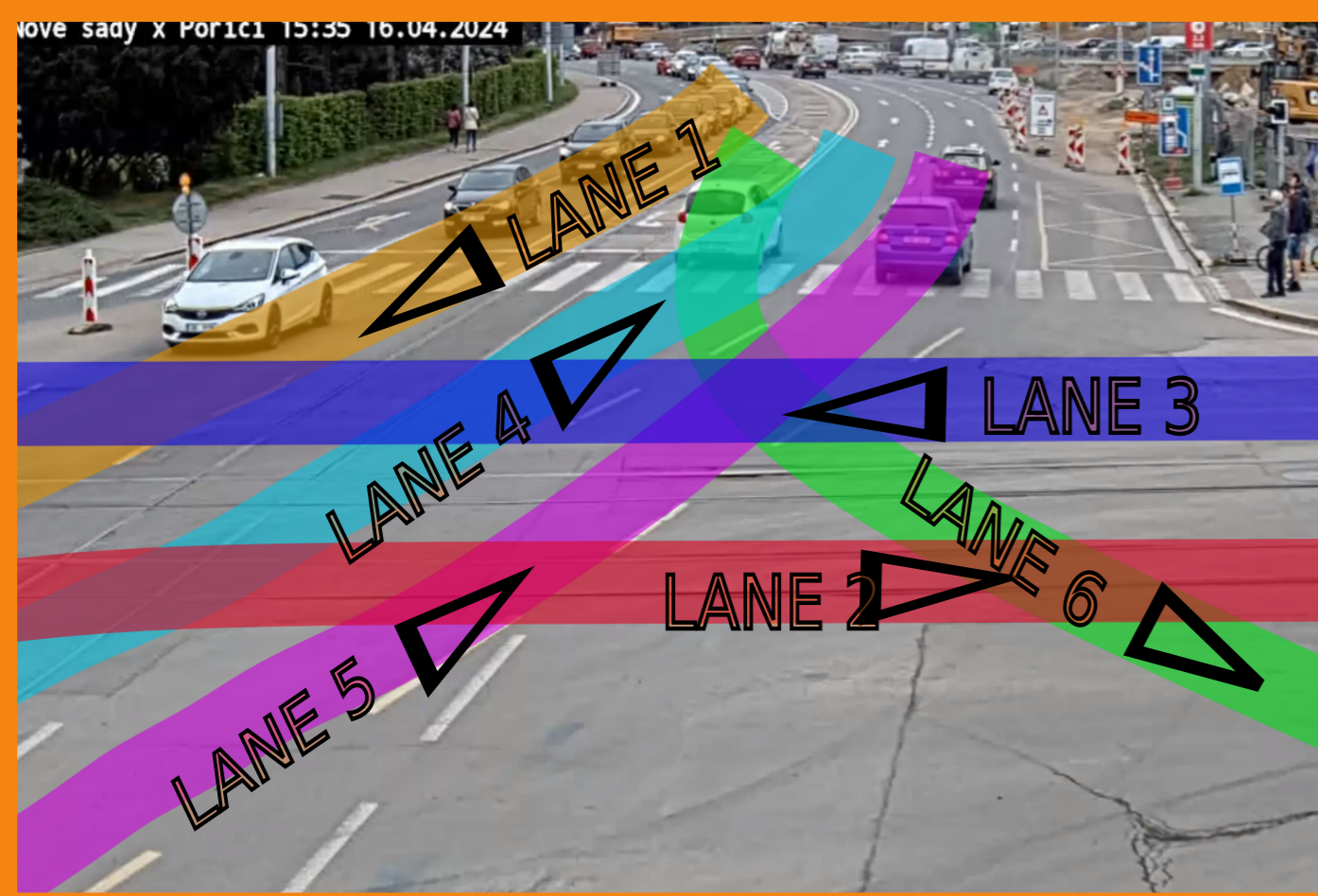
- traffic monitoring system based on static surveillance camera
- system is capable of automatic annotation of the captured scene without any additional information



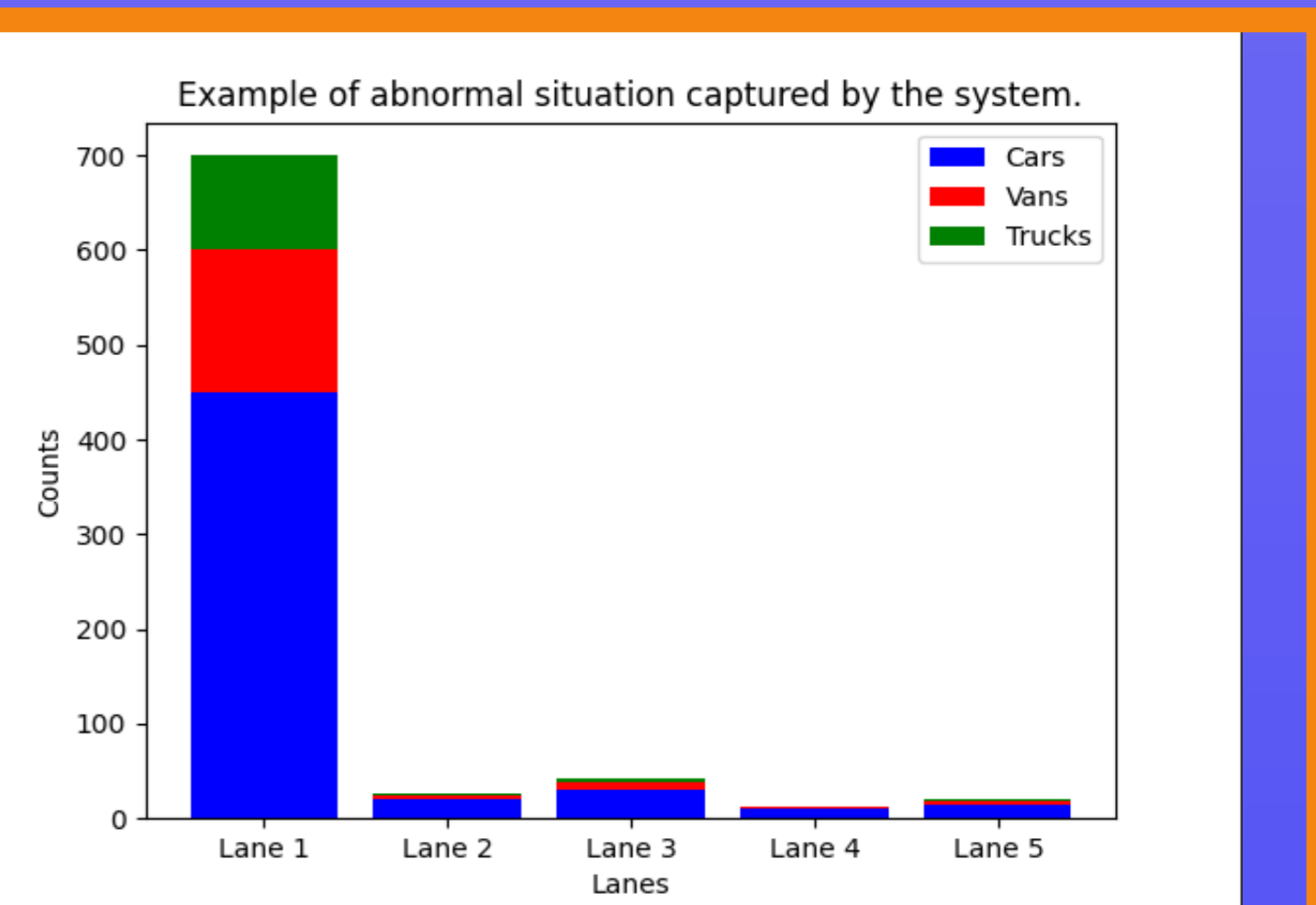
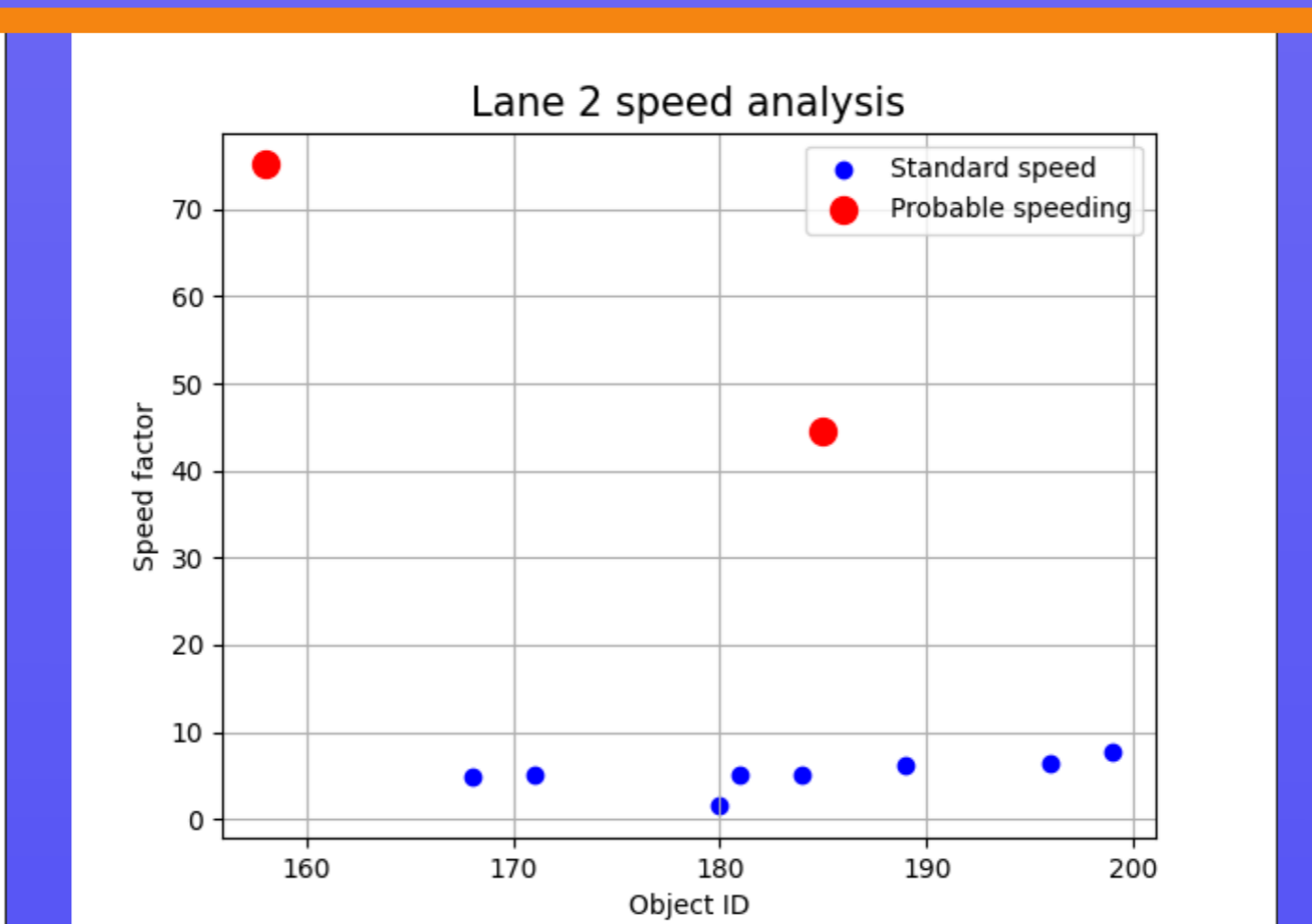
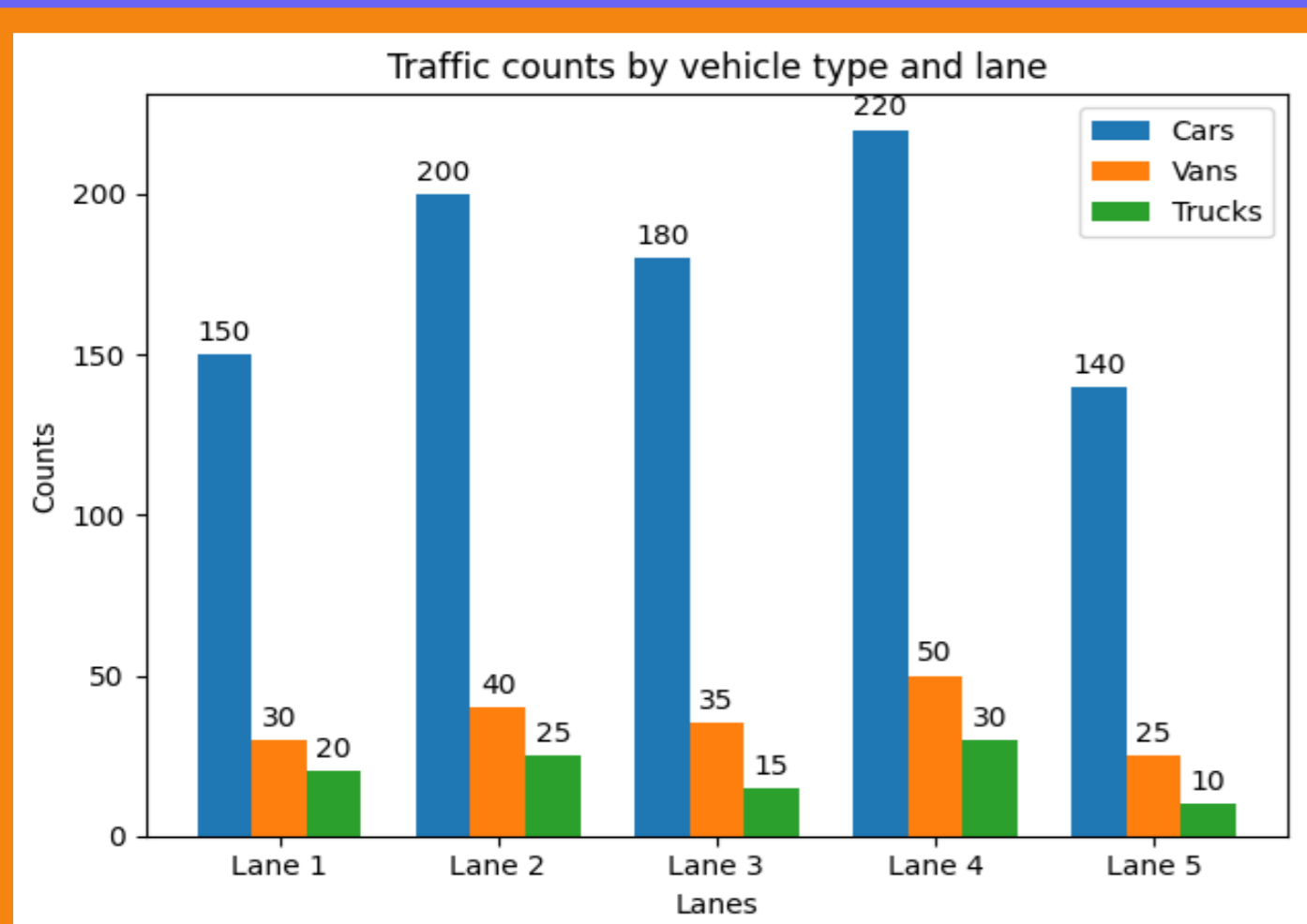
## Collecting of trajectories and clustering



## Automatic scene annotation



## Statistics and detection of anomalies



Traffic monitoring systems currently need to manually determine where and in which direction vehicles are moving, or use multiple sensors. The proposed solution consists in switching on the camera in learning mode when it collects data about the current traffic. Once the data collection is complete, the measured trajectories are processed so that based on them, it is possible to detect anomalies in normal traffic. This approach is independent of the camera position and road markings and uses only data from the static camera.