CASE STUDY: NICOSIA

Municipality of busy Nicosia deploys video solution for enhanced traffic control and safety regulations.

THE CUSTOMER AND THE CHALLENGE

Nicosia is an extraordinary city, the only capital in the world divided almost in half by two countries. The Cypriot part is home to approximately 300,000 residents, and the Turkish part has a population of 100,000 people. It is also a city of rich history, ancient architecture, exciting festivals, and an incredible Mediterranean climate, making Nicosia a place of real tourist pilgrimage; at least 4 million tourists come here every year. All this naturally complicates the traffic on the roads of Nicosia, which is actually the size of a small settlement whose streets were not originally designed to accommodate heavy traffic. For these reasons, in recent years, the number of traffic accidents on Nicosia's roads has increased significantly and huge traffic jams have begun to form, especially in the densely populated part of the city. Residents of the capital requested that the local authorities find ways to solve the problem, but most traditional methods either did not suit Nicosia or were not effective.

THE SOLUTION

A modern solution to this problem was to equip the city with a video analytics system. Nicosia was equipped with video surveillance cameras, and IncoreSoft was called upon to provide the AI solution. To implement the idea, the government of the Cypriot city was offered two software products based on artificial intelligence capabilities - **VEZHA®** Traffic Analytics and LPR, with additional Speed Control functionality.

VEZHA® Traffic Analytics and LPR + Speed Control

- *Data collection on speeding violators and traffic jams.*
- ***99,5%** accuracy of license plate recognition.*
- *Dirty license plates, under different angles of capture.*
- *Accurate recognition at dusk, night, and in severe weather conditions.*
- *Vehicles moving at speeds of up to **320 km/h** (198 Mph).*

The Speed Control functionality is a unique development by IncoreSoft that analyzes the speed of vehicles on a particular section of the road. For the calculation, data is taken from the distance between two video cameras (A and B). Let's imagine that this distance is 500 meters. If the speed allowed on it is 60 kilometers per hour, the car should take about 30 seconds to traverse it. The detection of vehicles at point B prior to the time determined by the algorithm indicates that the speed limit has been exceeded. A significant delay indicates a slowdown, which would indicate a traffic jam. The program records both occurrences as an event and generates a notification.

THE RESULTS

Since the beginning of 2022, **VEZHA®** Traffic Analytics and LPR+Speed Control video analytics modules have been implemented in the Nicosia road system. Based on the data obtained, the traffic conditions were analyzed, systematic speeding violators were identified, and a map of city congestion was drawn. This provided the basis for developing a strategy to improve the operation of traffic lights, install road signs, photo-enforcement cameras, and elements of forced speed reduction.

Within the first few months of operation, **VEZHA®** Traffic Analytics and LPR+Speed Control from IncoreSoft have already demonstrated their significant effectiveness. Traffic control was improved, the number of traffic accidents, speeding offenders, and the likelihood of urban congestion was reduced by more than 30%.

Contact the sales representative today or visit incoresoft.com to download complete specification sheets.

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