ARTIFICIAL VISION SYSTEM FOR THE DETECTION OF PEDESTRIANS OR ANIMALS ON HIGHWAYS OR MOTORWAYS

Description:

The control of traffic on public roads by means of automated surveillance systems is progressively expanding due to the decreasing cost of the hardware associated with this type of system. These types of products are applied in many cases to the imposition of financial penalties on offending vehicles. However, not so much attention has been devoted to detecting situations that, being infrequent, can represent a significant danger to the lives of people on the roads. Among these situations is the crossing of highways or motorways by people or animals, which in addition to being unauthorized has a high probability of causing a serious accident. This invention focuses on an artificial vision system for the detection and subsequent warning of the presence of unusual elements on roads and highways, such as pedestrians, animals and inert obstacles, which can put the lives of vehicle occupants at risk. that circulate on these roads and of pedestrians and animals. Through its use, traffic authorities or drivers could be alerted directly by mobile phone or other communication systems, in such a way that safety on this type of road would be increased.

Keywords:

Traffic, Road Safety, Artificial Vision, Highway, Autovía

Sectors:

ICT, Security, Protection and Defense, Transport, Tourism, Culture and Education

Areas:

Hardware / Devices / Components, Software / Procedures, Infrastructure improvements, Protection and security, Recognition and detection system, Infrastructures

Advantages:

The invention proposed here solves the technical problem of locating and identifying anomalous objects (pedestrians and animals) in an uncontrolled environment such as that of a public road. This system makes use of a dynamic tracking model that incorporates information from the moving objects registered in the scene, eliminating them when they disappear from the scene and adding new ones after their appearance in the scene. Said model estimates the positions and speeds of the recorded objects, and stores the previous instants of time in which these objects have been identified, in order to eliminate them from the model as they leave the recorded scene.

Uses and Applications:

The present invention falls within the field of Security Systems in Transport and Traffic Infrastructures.

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