

e-News - Saturday, 7 March 2020

USING ANPR TO ENHANCE SECURITY

As the number of vehicles using South African roads increases, the need to deploy automatic surveillance systems also increases. Automatic Number Plate Recognition (ANPR) and detection is a key technique in most applications related to vehicle movement.

Image processing-based solutions in the form of machine learning are proving highly accurate because of their ability to store large amounts of information in an image that can be used from various perspectives. Additionally, it has the ability to solve complex visual recognition tasks and it can identify vehicle licence plates in an efficient manner, with minimal human input.

“The need for centralised surveillance management systems with task-specific technology is becoming a priority for city officials seeking to provide enhanced security for residents, business owners and visitors. In addition, by deploying ANPR cameras, the burden on law enforcement to ascertain whether a vehicle and/or its occupants are suspected of being involved in criminal activity is minimised. Comprehensive databases can be developed, ensuring the accurate identification of vehicles and allowing for a rapid reaction from response teams,” says Craig Turner, surveillance specialist at Duxbury Networking.

Deep learning and AI-based algorithms enable ANPR cameras and their associated software to detect and recognise number plates with an extremely high level of accuracy. Furthermore, ANPR allows authorities to recognise licence plates in spite of high traffic speeds, poor lighting or varied camera angles. It is not only the ideal security tool for traffic and other city officials but is also particularly useful in parking applications at airports, housing complexes and secure facilities.

Turner points out that, in keeping with its forward-thinking approach to anticipating and meeting the demands of its customers, Duxbury has adopted a number of synergistic technologies that focus on the advances in artificial intelligence (AI) and ANPR.

“As an example, we are able to provide a camera specially designed to capture clear and sharp licence plate images from vehicles moving at speeds of up to 130 km/h. This camera can be used with server-based or edge analytics from most third-party vendors to perform further analysis of recorded or live material. We also offer a software platform that generates alerts based on defined situations, such as stolen vehicles and illegal parking,” says Turner.
