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New speed monitoring system tested

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The KwaZulu-Natal Road Traffic Inspectorate (RTI), and a group of companies led by Barry Fryer Dudley, of I-Cube, will test a new way of policing motorists this holiday.

In a three-month trial, starting in early November, they will use a distance-time system to determine a vehicle's average speed between two cameras, placed, in this instance, 13.8km apart.

Fryer Dudley explains the system measures the average speed of vehicles by using licence plate recognition (LPR) units installed at toll plazas or on bridges. Even if vehicles are travelling within the legal speed limit when they pass the two cameras, the system will be able to calculate whether they were speeding between the sites.

LPR is a non-intrusive, computerised method of capturing a licence plate and comparing it to a database of registration numbers. LPR systems consist of one or more cameras, in this case Internet Protocol units designed for high-speed LPR, connected to a PC running LPR software, proprietary to I-Cube, which controls the system, reads the images, analyses and identifies the plates.

This interfaces with a custom-developed average speed determination application and a database.

'Huge advantage'

“The ability to interface into multiple data sources in real-time gives the LPR system a huge advantage over current techniques. The minimum requirement for LPR would be an image, the I-Cube software and a processing system to provide the results,” Fryer Dudley says.

RTI director Johan Schnell says similar systems are in wide use in Europe, especially Germany.

“The system is designed to ensure people who are hell-bent on speeding do not just adjust their behaviour at or near fixed-speed timing locations [speed traps],” he adds. Every vehicle travelling every road could effectively be measured this way, over every kilometre.

The system is, for now, only being tested between Pietermaritzburg and Durban. If successful, the system, which costs R1.5 million per deployment, could be rolled out to as many as 1 250 sites nationwide, Fryer Dudley states.

Schnell says the RTI will invest in the system if it meets the criteria of the department and the courts.

Although Schnell says the RTI is, for now, only interested in dissuading speeding, Fryer Dudley adds that police, as well as vehicle tracking companies, will have access to the data recorded and could use it to pull over stolen vehicles, or motorists found to have warrants or speeding fines outstanding. Using methodology akin to biometrics, the system can also identify cloned vehicles and unlicensed taxis.