

# How Al will change driving forever

Autonomous or self-driving vehicles may appear to be a new phenomenon, but key transport manufacturers and stakeholders have been developing smarter driving systems for some time, and South Africans can expect to see revolutionary new intelligent cars and driving systems on our roads within a matter of years.

This is according to the joint CEOs of Payment24, Shadab Rahil and Nolan Daniel, whose advanced new fuel payment mechanisms are focusing on smarter systems in the fuel area of transport.



Nolan Daniel and Shadab Rahil, joint CEOs of Payment24

"Al has reached a level of maturity where we can safely say it will change driving, transport and logistics completely," says Daniel. "All that really stands in the way of autonomous vehicles on the road in their numbers currently is legislation," says Rahil. "The technology to enable them is already in place."

#### The future of Al and driving

Rahil and Daniel predict that within the next few years, Al will enable:

### Self-driving transport shuttles

Replacing today's Uber with the driver, autonomous shuttles will one day traverse cities, transporting passengers and goods safely and cost-effectively. Al's natural language understanding and pattern recognition abilities will reduce the need for user interfaces.

Individual car ownership will become less necessary, and commuters will embrace the shared transport model. By 2020, it's expected that up to 10 million self-driving cars will be on the road worldwide.

### Self-servicing vehicles

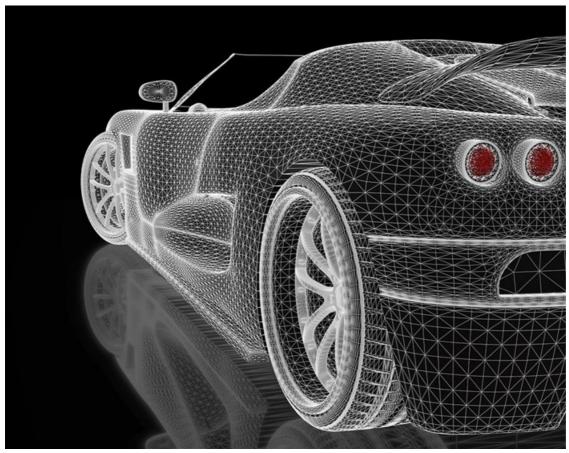
Not only will these autonomous shuttles know who needs to be collected where they will also use AI to self-diagnose maintenance needs and proactively take themselves to service stations for repairs. Even non-autonomous vehicles will be equipped with increasingly intelligent systems to support proactive maintenance and pre-empt breakdowns.

#### Intelligent route planning

With embedded AI, onboard driving systems will go beyond navigation and traffic alerts to understand the most effective routes to use based on driver preferences, road conditions and even the current weather patterns. Linked to other AI systems, intelligent cars will one day offer route planning based on preferred service providers, recent online searches or digitised appointments.

#### Intelligent safety features

Al will take modern safety features to the next level, offering assistive safety that predicts potential accidents, forecasts the behaviour of other road users, controls the braking system based on the road and weather conditions to avoid skidding.



Source: pixabay.com

Al will also use onboard IoT sensors and inward-facing cameras to record driving patterns to support driver safety, insurance risk assessment and law enforcement.

## Eyes everywhere

Al-enabled, IoT-equipped vehicles will prove an effective tool for roads infrastructure and traffic management, giving authorities a real-time view of the state of roads and traffic.

### Intelligent fuel consumption

Al systems will enable significant fuel savings, supporting more efficient route planning and new models for transport, such a 'green-streaming' to avoid waiting at traffic lights, or 'platooning' in which vehicles follow each other at a distance calculated to be safe and streamlined, and so save on fuel. Al will also allow onboard sensors to learn from fuel consumption patterns, determining when too much fuel is being consumed, and initiating a service.

### Intelligent fuel payment

Fuel payment and management system pioneers Payment 24 are already researching the potential for AI in fuel payments. One area of focus is enabling autonomous vehicles to refuel without human intervention. AI will also enhance existing smart systems to manage fleets, monitor fleet fuel consumption and authorise fuel payments for logistics companies.

"Al is changing the face of transport. It is set to make transport cheaper and more convenient, and crucially – it has the potential to make roads safer," says Daniel.
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