

An eye for mistakes

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24/02/2018 Porsche develops artificial neural networks for Production 4.0.

Porsche has developed a new solution for preventive maintenance: Artificial intelligence recognises noises and vibrations and uses deviations from normal behaviour to interpret machine errors.

In collaboration with the start-up iNDTact, the Porsche Digital Lab in Berlin has developed a system that recognises problems based on anomalies in vibrations and reports them accordingly. This innovative solution utilises the vibrations that are generated by every moving system and every machine. They are as unique as a human fingerprint, which is why artificial intelligence can detect even the smallest anomalies.

Predictive maintenance is a core component of Industry 4.0. It involves servicing machines and systems proactively in order to minimise downtime. Unlike preventive maintenance, service intervals are not defined in advance but are determined and optimised using technology. Predictive maintenance

therefore has many advantages over preventive or reactive approaches to maintenance. Total system failures can be reduced by continuously monitoring a machine's current status.

The Porsche Tech Laboratory has identified various different applications for artificial intelligence, including the status of a connector during production, quality analysis of supplied parts and predictive maintenance.

Link Collection

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