

Monitoring system for railway maintenance

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Description

UVIGO researchers have developed an accurate and reliable system for monitoring the durability of pantograph components preventing manual operator inspection. Based on artificial vision, this system measures the remaining thickness of the graphite layers of the collector strips. Automatic processing of collected data generates a 3D model of the strips, analyzing it to detect cracks and wear, which is crucial for pantograph maintenance.

Innovative aspects and advantages

In comparison with current procedures:

- Fully automatic inspection and report generation.
- Faster and more reliable than manual inspection.
- High resolution and precision analysis allow implementation of predictive maintenance policy.
- Generation of a historical database, which allows the detection of structural problems.

Commercial applications and potential users

Industrial partners involved in railway maintenance.

Patent status

Spanish patent.

Type of collaboration

Collaboration for further development and licensing of the technology are offered.

