

Overhead power line health and performance analysis

Mission

Sentrisense is dedicated to enhancing power grid operations and facilitating a seamless energy transition. We are committed to delivering innovative solutions that boost energy efficiency, minimize environmental impact, and effectively leverage the existing infrastructure to move towards a sustainable future.

How Does It Work?

A cloud-based platform combined with specific algorithms is able to collect, store and process data coming from the swarm of sensors spread across the line. Alerts are generated regarding the power lines integrity, so the user can see the information and act.



Easy to Install

Easily attachable to live power lines, SENTRI is drone-compatible for effortless installation even in the most challenging locations.



Self-Sufficient

Solar-powered and capable of operating autonomously for up to 6 months, SENTRI is designed to minimize your operational maintenance and downtime.



Measured variables

SENTRI has multiple different sensors for measuring variables such as: acceleration, inclination, magnetic field, line temperature among others.



Meet the SENTRI



Proactive

Built-in, real-time monitoring features allow SENTRI to alert you of any tilting, oscillations, or abnormal vibrations, safeguarding your power lines' health and longevity.



Connected

SENTRI offers robust and flexible internet connectivity options, from 3G/4G to WiFi and LoRa, with satellite connectivity available upon request, keeping you connected no matter where your infrastructure lies.



Unlocking Overhead Power Lines Full Potential

Boost Reliability, Respond Faster, and Improve Performance



Early Fault Detection (EFD)



Replacing damaged power lines in a timely and cost-efficient manner.

- Pole health index based on tilt level and tilt rate.
- Conductor displacement amplitude and fatigue estimation.
- Conductor broken strands analysis for degradation assessment.
- Sag calculation for ice deposited and aging regarding plasticity of the conductor.

Quick Incident Detection QID



Fast response to power line issues, minimizing disruption.

- Detection of wire theft, fallen trees on the line.
- Detection of objects impacting the line.
- Cut conductor and/or energy outages events.





Dynamic Line Rating (DLR)



Optimizing energy transmission and future-proofing your grid.

- Wind speed estimation by analyzing conductor vibration.
- Wind speed calculation for enhanced AAR and DLR models.
- Machine learning models for closing the loop with conductor temperature.

Are you interested in learning more about our products?



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