

Our module serves as a digital control system and a predictive maintenance tool

Broadening tunnel lighting services to the digital control and predictive maintenance.

INDUSTRIAL DATA ANALYTICS

This is the process of collecting, analyzing and using plant data to harness the hidden value. Tools like e-DAP are capable of modelling a physical phenomenon on the basis of data collected over time. The insight gained helps improve operational efficiency, optimize process, and plan maintenance ahead of time.

SITUATION & CHALLENGE

- Live monitoring of the lighting data in the tunnel and the aging of the light points.
- Monitoring the risk associated with aging and any anomalies.
- Rely on a predictive maintenance tool to intervene in due time.

SERVICE & APPROACH

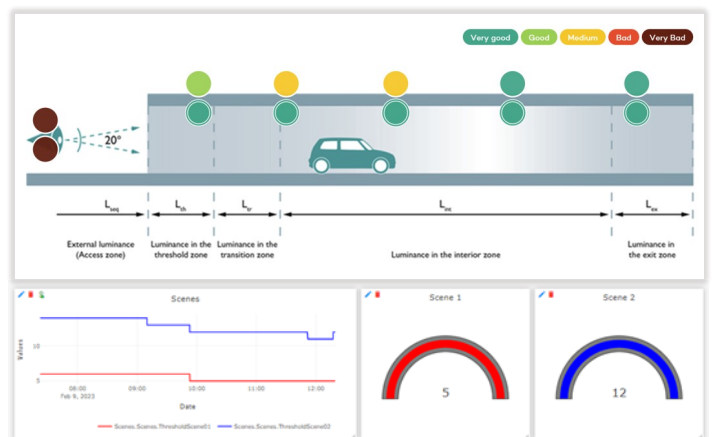
- AFRY's IoT system is connected to the client's SCADA repository system via an MQTT protocol.
- The systems collects and ingests live data in the platform at a frequency of 5-to-10 seconds.
- Appropriate analytical models for predictive maintenance were implemented, based on literature and regulatory norms.
- The Tunnel Digital Twin is to be used to forecast the daily operation and probable health of the lighting system.
- The platform is used as an asset management tool

E-DAP: the *end-to-end* data platform

A cloud-hosted infrastructure for the treatment of plant data: from IoT sensing, through engineering, dashboarding, ML/AI, digital twinning, to insight

IMPACT & ADDED VALUE

- The client now has on-line intelligence tool for predicting the asset's performance and probable health.
- The client is capable to live monitor daily operations of any tunnel lighting system .
- Next step is to onboard several tunnels worldwide.



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