



AE - BASED INTEGRITY ASSESSMENT

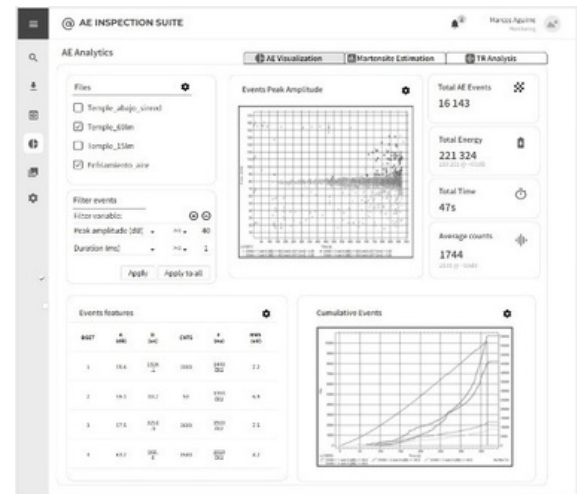
Condition monitoring for rotating machinery detecting early-stage damage in industrial components using AE signal analysis

SOLUTION DESCRIPTION

This solution **predicts the quality of the product and anticipates possible defects** arising during its manufacturing process by means of Acoustic Emissions (AE).

It integrates **AI tools and data analytics** services to establish quality control techniques, facilitating the inference of correlations among diverse signal parameters, such as signal amplitude, duration, counts, energy, and rise-time, among others.

It allows operators to **stop the production and adjust the manufacturing** process thus avoiding the discard of a whole batch of difficult to reprocess material.



MAIN BENEFITS

- ▶ Avoids the discarding of whole batches
- ▶ Detects defects in an early stage
- ▶ NDT in-situ hardness estimation
- ▶ Automates martensite estimation
- ▶ Data-based martensite estimation (no experience needed)

PRODUCT OWNERS:



MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE



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