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Predictive Maintenance - SAM 4

Impact ☐ Product Quality ☑ Sustainability ☑ CO2 reduction ☑ Operational cost

SAM4 is the Smart Condition Monitoring solution for AC induction motors and rotating equipment that detects upcoming electrical and mechanical failures at an early stage.

Technology description:

Eliminiate unplanned downtime and energy waste.

SAM4 monitors assets at scale, by automating analysis based on concepts borrowed from Motor Current Signature Analysis. Collectively, the algorithms allow SAM4 to process large amounts of data and provide accurate analysis across a wide variety of motors, assets and circumstances without editing a single line of code.

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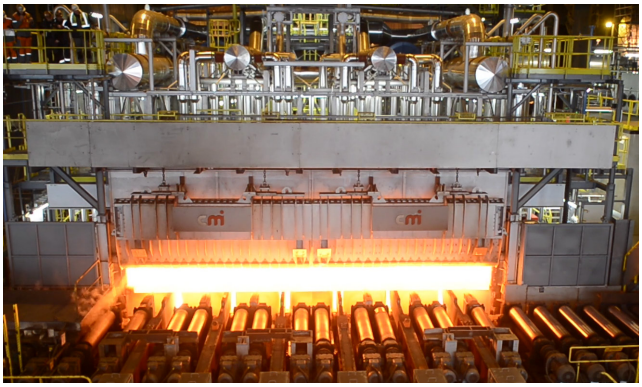
CE-certification, ISO 9001 (from February 2020 onward)
Connectivity: 4G, Wi-FI, cabled internet
Operating Conditions: 0 - 80 Celcius

www.semioticlabs.com/en/explore

Use case description:

ArcelorMittal's rotating assets often operate under harsh conditions. A conveyor at the Ghent hot strip mill facility moves plates of sizzling hot steel along the production process. Under these circumstances, traditional, vibration-based predictive maintenance technologies fail due to high temperatures.

Hear from Carlos Alba (chief digital officer at ArcelorMittal) and Peter D'haese (chief digital officer at ArcelorMittal Flat Europe) on how SAM4 predictive maintenance enables the detection of developing asset faults from inside the motor control cabinet.



"The first three incidents predicted by Semiotic Labs' SAM4 were not accepted by the maintenance team because they doubted the accuracy of the solution," says D'haese in the video. "Afterwards, those motors also came to failure. And once this conviction was there, every prediction of every failure was accepted by the maintenance team and they replaced the motors quite in advance. So in total, I think we detected 12 issues of which each was confirmed later by a failure in the motor."

https://belgium.arcelormittal.com

Name of technology	SAM4
Name of end-user	Arcelor Mittal in Ghent, Belgium
Main application areas	CO2 Reduction, Operational Costs
Industry 4.0 domain	Value-Based Service; Operator Support in Production;
Technology provider	SemioticLabs SAM4