techind.

Case Study

Predictive Maintenance for a Leading Manufacturing firm

Introduction

Manufacturing success depends on reliability, yet equipment failures can cause costly disruptions and safety risks.

To address these challenges, Techindo, a global IT solutions provider, partnered with a leading Indian steel plant to implement an IoT-driven predictive maintenance solution, transforming its maintenance strategy with industrial automation and AI analytics.

The Client

A leading Indian steel manufacturer managing 420,000+ capital-intensive assets in harsh industrial conditions faced infrastructure aging, safety risks, and pressure to maintain efficiency.

The Challenges

Harsh Environment
Extreme temperatures, dust, and heavy loads accelerated wear and tear.

Aging Equipment
Prone to unexpected failures and downtime.

Unplanned Downtime
Disrupted production and deliveries.

Safety Risks
Increased compliance and liability concerns.

Techindo's Solution

SMART Sensors
Deployed across 1,200 assets to monitor vibration, temperature, and pressure in real time.

Maintenance Transformation Roadmap (MTR)
Guided the transition from reactive to proactive maintenance.

AI-Powered Analytics
Proprietary platform detected anomalies and predicted failures for proactive maintenance.

Robust Tech Integration
Edge computing, cloud analytics, and AI-driven recommendations for seamless efficiency.

Tech Stack

IoT Sensors
Texas Instruments

Edge Computing

Cloud Analytics
Azure

AI & ML

Visualization
tableau

APIs & Connectivity
REST API

Value Delivered

Enhanced Operational Performance
Maximized asset utilization, minimized disruptions, and improved overall productivity.

Enhanced Safety & Compliance
Timely maintenance improved workplace conditions.

Prevented 1,000+ Equipment Failures
Proactive alerts reduced downtime.

Optimized Employee Experience
Streamlined workflows reduced emergency repairs.

Conclusion

Techindo's IoT and AI-powered predictive maintenance solution has transformed the steel plant's asset management, shifting from reactive to proactive maintenance. With increased efficiency, safety, and reliability, Techindo continues to empower manufacturers with innovative technology solutions.

Are you ready to revolutionize your manufacturing process?

With Techindo's seasoned IT expertise you can:

- Cut downtime by 50% with predictive maintenance.
- Boost efficiency with AI-powered insights.
- Save 30% on maintenance costs with IoT monitoring.
- Enhance safety & reduce workplace risks.
- Prevent failures, slash emergency repairs, and extend asset lifespan.

Let's discuss how we can tailor our solutions to your unique challenges and boost your competitive edge.

Contact us

Discover the Techindo Advantage

Partner with us for innovative IT and business consulting solutions.

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