RUGGED MONITORING

MONITORING SIMPLIFIED

Enhancing Performance & Durability in Steel Plants

with Electrical Asset Condition Monitoring

Monitor your industrial assets to get more out of them

RM's Solution for Steel Plants

Enhancing efficiency and reliability is essential in the steel manufacturing sector, where the process is energy-intensive and multifaceted, consisting of numerous intricate unit operations. The quality of steel produced hinges on the seamless operation of each process, necessitating constant vigilance and monitoring. Automation plays a pivotal role in streamlining operations, but it comes with its own set of challenges, particularly in managing the extensive electrical infrastructure required.

Welcome to the future of steel production, where efficiency, reliability, and safety are at the forefront. In the fiercely competitive landscape of steel manufacturing, maintaining the optimal performance of electrical assets is paramount.

We at Rugged Monitoring are motivated to provide innovative and exceptional quality products, our vision remains focused on meeting customer requirements while anticipating and exceeding the needs of a continuously changing dynamic market.

Challenges in Steel Plants

Steel plants operate under harsh conditions, subjecting electrical infrastructure to extreme temperatures and corrosive environments. These conditions pose significant challenges, including downtime, safety risks, and decreased productivity.

Our Solution

IoT sensors   Edge Devices

We at Rugged Monitoring provide customised solutions with specifically designed IoT sensors, Edge Devices and Advanced Asset Performance Management Software. Our Electrical Asset Condition Monitoring system provides comprehensive monitoring and diagnostics for all critical electrical equipment in steel plants.

By continuously monitoring key parameters such as

temperature	vibration	electrical characteristics

our system detects potential issues early on, enabling proactive maintenance and minimizing the risk of unexpected failures.

Advanced Asser Performance Management Software

Benefits

- Maximizes equipment uptime by proactively identifying potential failures.
- Enhances safety by monitoring critical parameters and detecting abnormalities.
- Optimizes maintenance schedules to reduce downtime and boost productivity.
- Extends asset lifespan by preventing premature equipment failures.
- Provides real-time data and insights for informed decision-making.

Features

- Remote monitoring capabilities for easy access to real-time data.
- Customizable alerts and notifications for proactive maintenance.
- Scalable architecture to accommodate future expansion and growth.
- Seamless integration with existing plant infrastructure.
- User-friendly interface for intuitive operation and management.

R501 Rack Mount Comprehensive and Customizable Asset Monitoring Solution

R501, the customizable, rack mount, comprehensive electrical asset condition monitor is designed to monitor multiple electrical assets and its parameters enables a simple and user-friendly interface. R501 provides condition monitoring of electrical assets by focusing on preventing asset failures and reduce downtime. With our comprehensive monitoring solution, the health of assets can be determined, and maintenance activities can be scheduled. The R501, our versatile rack-mounted monitor, with its customizable features allow you to monitor multiple assets simultaneously, providing a user-friendly interface and an extensive range of parameters to track. The R501 focuses on preventing asset failures and minimizing downtime, empowering you to take proactive maintenance actions.

R501
ADVANCED MULTI ASSET MONITOR

Features of R501

- Expandable with daisy chain & Field Upgradable to add different monitoring modules.
- Highly secure, web server-based visualization and configuration software
- Simple visualization & easy to configure.
- Equipped with most accurate & advance health assessment analytics.
- Range of communication options and protocol support; ethernet redundancy (PRP)

Benefits of R501

- Improved asset reliability
- Accurate predictive analysis
- Access asset data from anywhere
- One monitoring solution for multiple assets
- Increased asset lifetime
- Highest return on investment
- Field upgradable with no device downtime

RM EYE: Multi Site, Multi Asset Condition Monitoring Solutions

We at Rugged Monitoring have developed an AI based comprehensive electrical asset condition monitoring system "RM EYE" with multiple analytical capabilities in asset condition monitoring that stands way apart in technological advancement.

RM EYE is a versatile condition monitoring solution that can offer comprehensive analysis on various electrical assets spread across multiple industries. It considers every aspect in condition monitoring of different assets like transformer, cable, GIS, AIS, motor, generator, UPS, VFD, MV panel, battery, relays, etc and users to give the best recommendation for longer and better health of the assets.

RM EYE
Improve the ROI & Asset life.

Power Cable · GIS · Transformer · AIS · Motor · Generator · UPS · Relays
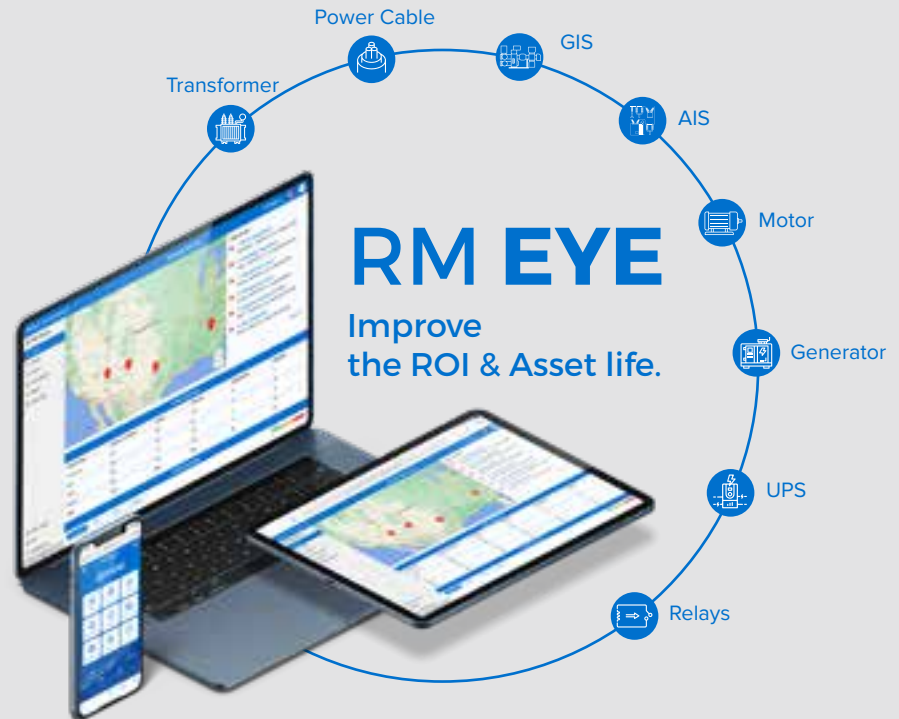
Features

- **Advanced asset health monitoring** with analysis and recommendations to increase asset effectiveness in addition to maximizing equipment uptime

- **Modern remote monitoring solutions** provide valuable insights to Multiple Assets at Multiple Sites from time to time

- **Establish a real time and consistent monitoring** by getting the right information into right hands

- **Simple and user-friendly interface** providing easy and fast access to all the features

- **Everything about the asset at one place** The raw data, analysis and recommendations

- **Advanced asset algorithms** for electrical assets to evaluate asset health

- **Advanced reporting technology with automated alerts**

- **An efficient, reliable partial discharge monitoring for all the assets**

- **A detailed comprehensive DGA analysis**

- **Built on well-established remote and cloud-based monitoring technology**

- **Quick configuration** so that you are not required to configure separately.

- **Protocols: IEC 61850, MODBUS, MQTT**

- **Robust integration with 3rd party systems and devices** with industry standard protocols

- **Bulk configuration imports for fast deployment**

- **Encompasses a secure access to data and configuration**

- **QR code scanner on mobile devices**

- **Accessible on web browser and mobile app**

- **Historical data storage and on demand access** via export feature

- **Extended multilingual support** to handle product inquires or troubleshoot problems proactively

- **Systematic fleet management analysis**

- **Offline test data integration and analysis**

Benefits

Company

- Single monitoring solutions for multiple assets
- Avoid unscheduled outages and increase asset utilization
- Extend asset life, with proper maintenance
- Reduce insurance premium with most advanced monitoring
- 24 x 7 remote monitoring, accessible from anywhere

Manager

- Decision support system for short term and long term planning
- Company, region, substation analysis on your fingertips
- Effective management and tracking of monitoring KPIs
- Identify problem areas with interactive dashboards
- Advanced and automatic management/regulatory reports

Asset Experts

- Deep analysis of diagnosed faults with advanced analytical tools
- Complete asset data at one location
- Customise and generate automatic reports for subscribed assets
- Ready access to historical data for root cause analysis

Operators

- Quick identification of problematic assets in the network
- Get real time alarm/ alert notifications
- Realtime updates about the assets on mobile, desktop and emails
- Quick access to assets with QR code scan on handheld devices

Get unmatched reliability and performance in your steel plant with

Remote Monitoring Capabilities

Scalable Architecture

User-friendly Interface.

Customizable Alerts

Seamless Integration

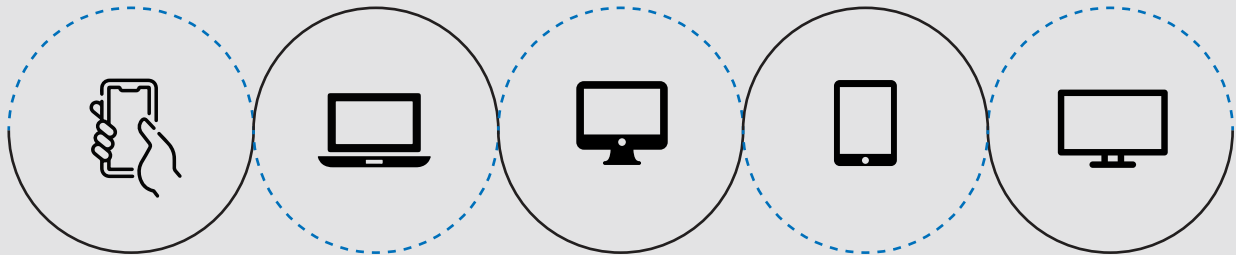# Asset Monitoring :
Enterprise Architecture

Compatible with Rugged Monitoring Enterprise Solution

UI/UX

- Data Layer
- Analytics
- User Interface
- Custom Dashboards
- Reporting
- Email/SMS Notifications

RM EYE

Private Cloud (Customer Cloud),
Rugged Monitoring Cloud

IEC 60870-104	**ODBC**
IEC 61850	**MODBUS**
FTP/SFTP	**DNP 3.0**
- XML, JSON	**HTTPS**
- CSV, COMTRADE	**MQTT**

Data Collection

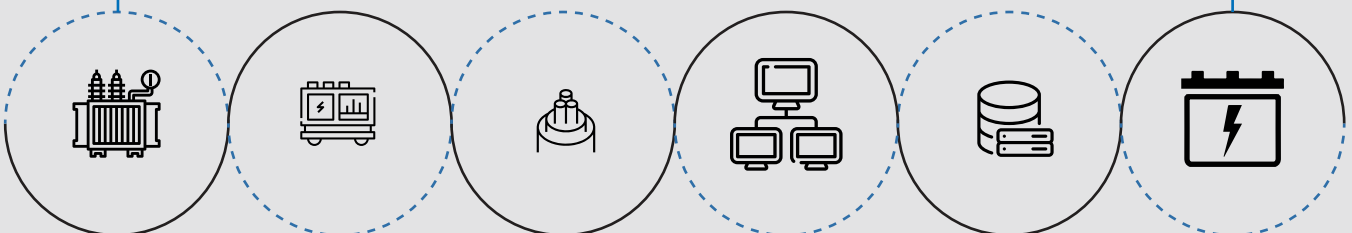**Asset Data**

Transformer Monitoring System

Switchgear Monitoring System

Power Cable Monitoring System

- Offline Test Results
- Inspection Records
- Name Plate

- Historian
- CMMS
- SCADA/ DCS

Power Electronics (Battery, UPS, VFD, Relay)

Why Customers Choose Us?

RM solution, the trusted monitoring solution for over 10000+ assets across 50+ countries. We are a leading High Value Electrical Asset Monitoring Company integrating fibre optic technology to the assets.

Attention to Detail
It's our attention to the small stuff, scheduling of timelines and keen project management that makes us stand out from the rest.

A plan for Success
Our Customers are well satisfied with the advisory services that we offer to help them with best in class technological performance and a long durable life.

Experts only
We bring in our diversified experienced team with over 100+ years of experience in Asset Monitoring

Meeting Deadlines
Work with us, and you'll work with seasoned professionals – vigilant of deadlines, and committed to exceeding client expectations.

Money Matters
We protect you against currency fluctuation with competitive and fair market prices

Rugged Monitoring Services

Rugged Monitoring provides customization of sensors, monitors & software. In addition we offer on-site commissioning services, maintenance contracts and technical support to all customers worldwide.

About Rugged Monitoring

Industry's leading team of asset condition monitoring experts with 100+ years of combined experience committed to delivering customizable solutions for challenging applications. We offer a range of reliable, high performance, customizable sensors and monitoring solutions that are immune to external influence.

Certification

ISO 9001	ISO 14001	ISO 45001/ OHSAS 18000	Llyod's Register	ATEX Certification

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