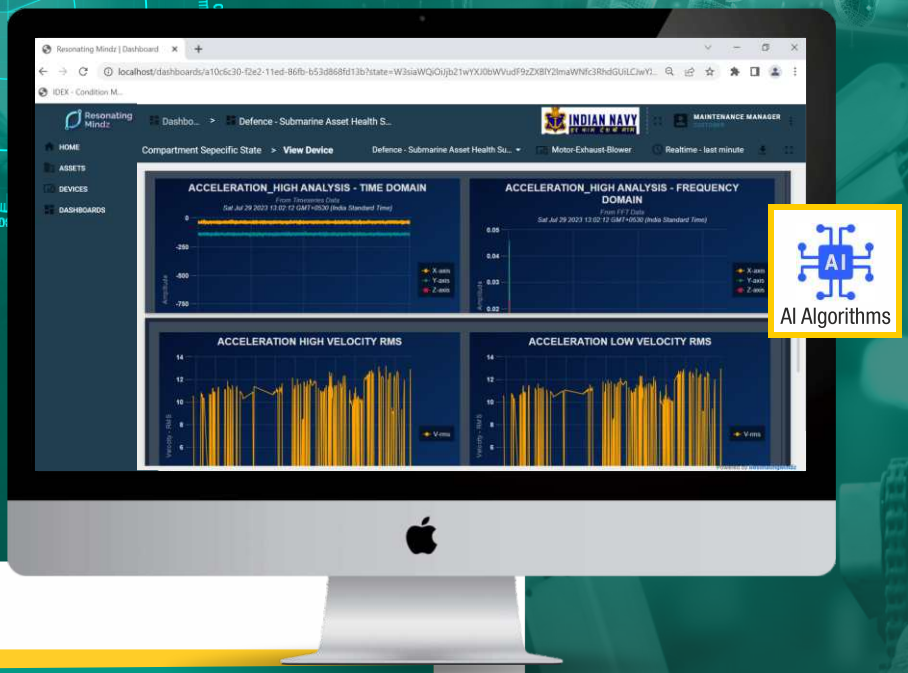
CONDITION MONITORING AND AI-DRIVEN PREDICTIVE MAINTENANCE

Resonating Mindz
Resonating Mindz Pvt Ltd
Accelerate Your Industry 4.0 Journey. Confidently.

We present an innovative solution that harnesses the power of AI to revolutionize predictive maintenance. Our advanced system leverages cutting-edge artificial intelligence algorithms and real-time data analytics to anticipate equipment failures before they occur. The platform is equipped with ready-to-use AI algorithms, including both supervised and unsupervised learning models, which automatically update to ensure continuous accuracy. Critical equipment parameters such as vibration, voltage, current, pressure, and oil quality are seamlessly interfaced, providing comprehensive monitoring and predictive insights.



TYPICAL EQUIPMENTS MONITORED


MOTOR


GEAR BOX


ALTERNATOR


CRITICAL LARGE EQUIPMENTS


FURNACE

COMPRESSOR

We address key MRO (Maintenance, Repair, and Overhaul) challenges, including

- Accurate fault diagnosis, Equipment Condition Monitoring.
- Scheduling and digitalization of maintenance activities and CMMS (Computerized Maintenance Management System).

KEY FEATURES

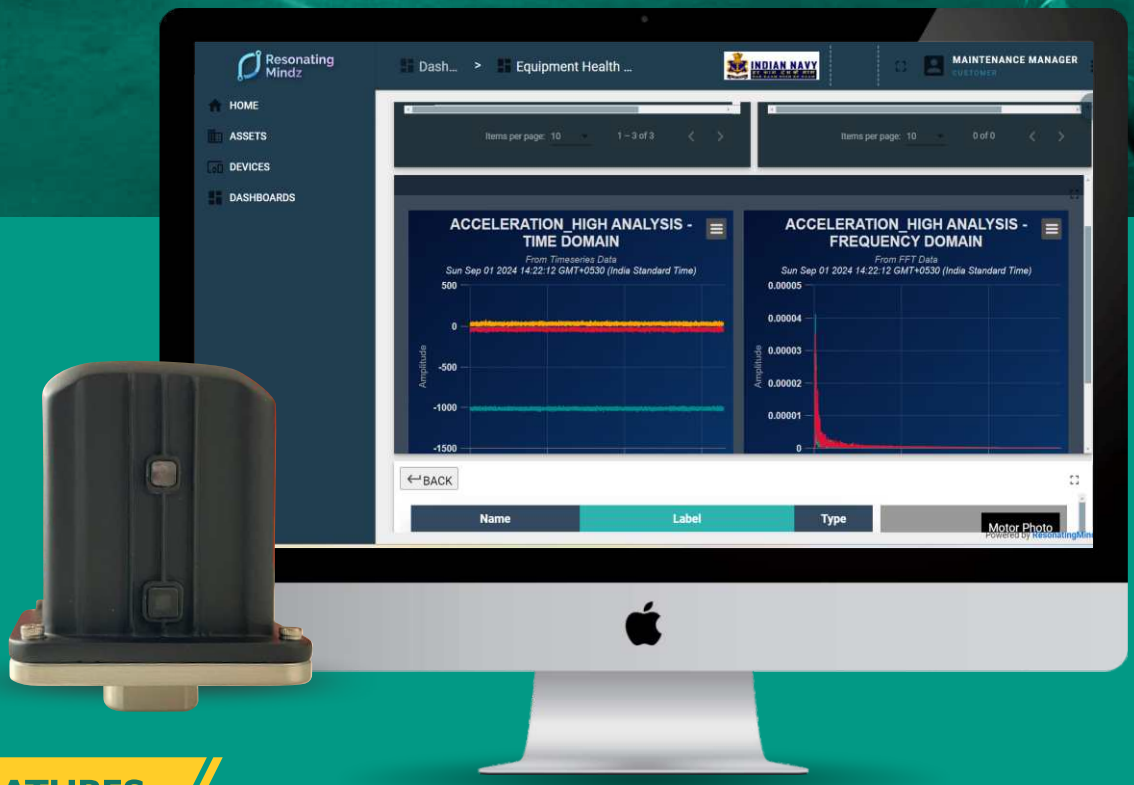
- Increased Operational Efficiency
- Extend Equipment Lifespan
- Minimize Unplanned Downtime
- Asset Lifecycle Optimization

SENSORS

VIBRATION SENSOR, MAGNETOMETER AND TEMPERATURE SENSOR

Our advanced sensor solutions provide comprehensive monitoring capabilities for a variety of applications. Designed for reliability and accuracy, these sensors integrate seamlessly into existing systems to ensure optimal performance and safety.

By focusing on vibration, temperature, and magnetic field measurements, we empower industries to proactively address challenges, optimize performance, and ensure safety across their operations.



KEY FEATURES

1. **Flexible Installation:**
   Available in both wireless and wired formats.
2. **Enhanced Sensitivity:**
   Capable of detecting subtle variations in vibration, temperature, magnetic field.
3. **Digital Signal Processing:**
   Signal processing module is available.
4. **Continuous Real-Time Monitoring:**
   Ensures ongoing data collection for effective decision-making.
5. **Precision Measurement:**
   Accurate detection of vibrations and magnetic fields.
6. **User-Friendly Interface:**
   Simplifies data interpretation and system integration.

MODERNIZATION OF LEGACY TANKS

We enhance legacy tanks with advanced communication with Command Centers via SATCOM. Bi directional communication with Command Centers, as well as inter-Tank communication is supported. Our solution also supports retrofitting IoT sensors to enhance situational awareness and monitor the health of critical equipment like motors and compressors, ensuring improved operational efficiency and reliability.

KEY FEATURES

Satellite Connectivity: Enables communication with Control center.

GPS and GNSS: Provides precise geolocation data for accurate positioning.

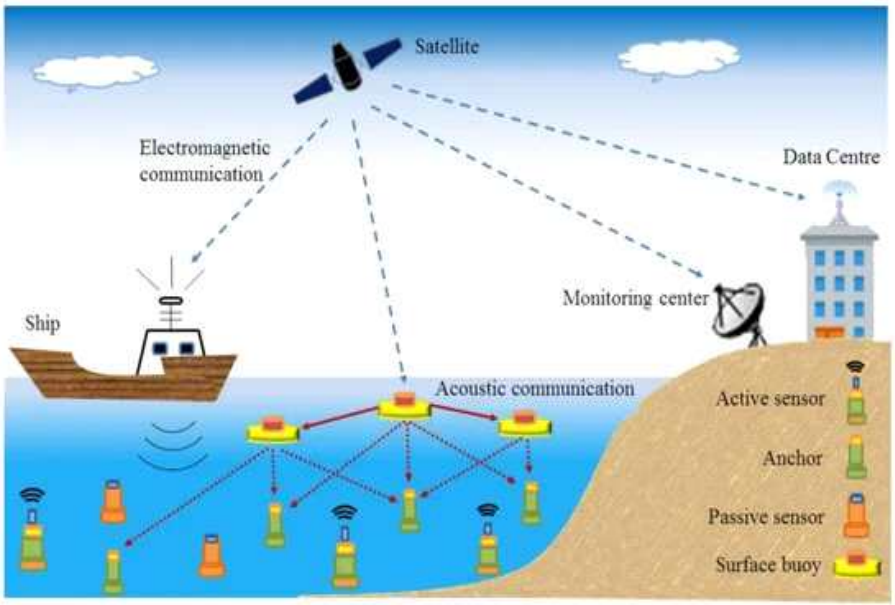
Real Time Data Flow: Continuous communication between tanks, satellites, and Command Control Centers.

Tank-to-Tank Communication: Enables direct data sharing for improved coordination.

Custom Sensor Retrofitting: Tailored integration of thermal imaging, infrared, and environmental sensors to optimize performance and monitoring.

UNDERWATER SITUATIONAL AWARENESS: INTEGRATED AI-POWERED SOLUTIONS

Our advanced AI-powered system integrates data from radar, sonar, satellite communication, camera feeds, and sensors to provide unparalleled underwater situational awareness. This unified platform offers real-time insights and alerts to enhance the efficiency and safety of maritime activities. Designed for defense, exploration, and other marine sectors, our solution ensures accurate detection, tracking, and analysis of underwater environments.

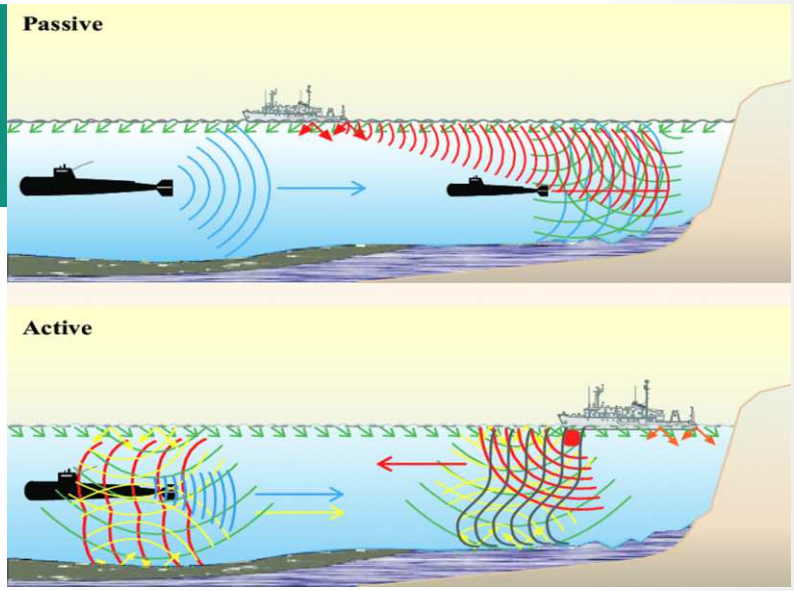


KEY FEATURES

- Multi-Source Data Fusion
- Real-Time Monitoring & Alerts
- Reliable Satellite Communication
- Advanced AI Algorithms
- Enhanced Situational Awareness
- Scalable Solution

ADVANCED SIGNAL PROCESSING SOLUTIONS

We deliver cutting-edge signal processing solutions across various technical fields. Leveraging radar, sonar, vibration, and acoustic signal analysis, we offer powerful tools for precise monitoring, diagnostics, and real-time decision-making. Our advanced technologies help optimize performance, increase safety, and ensure operational success in diverse industries.



TYPES OF SIGNAL PROCESSING

1. Radar Signal Processing
2. Sonar Signal Processing
3. Vibration Signal Analysis
4. Acoustic Signal Analysis

KEY FEATURES

- ADVANCED DIAGNOSTICS
- REAL-TIME MONITORING
- DATA-DRIVEN PERFORMANCE OPTIMIZATION
- HIGH PRECISION AND ACCURACY
- NOISE FILTERING & SIGNAL ENHANCEMENT
- ENHANCED SAFETY & RELIABILITY

- AWARDS & RECOGNITIONS -

faurecia inspiring mobility

Resonating Mindz has been selected as **Winner** by **Faurecia** for its **Avenir** Innovation Challenge.

BOSCH Invented for life

Resonating Mindz has been selected by **BOSCH** for its **DNA NXT STARTUP** Alliance Program.

Winner of **Defence India Startup Challenge**.

iDEX Innovations for Defence Excellence

IDEX **winner** for challenge **Multi Sensor Real Time** Monitoring of the machineries.

iDEX CHALLENGE

Successfully Completed Single Stage Composite Trial.

- KEY CUSTOMERS -

MAHLE | Schneider Electric | P&G | TATA AUTOCOMP SYSTEMS LIMITED | BHARAT FORGE KALYANI | JSW Steel

REACH US

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For inquiries and information contact: Avinash Manerahimatpurkar
#209, Speciality Business Center, Balewadi Road, Balewadi, Pune, India-411045

M: +91 9881364275
E: avinashm@resonatingmindz.com | W: www.resonatingmindz.com