Our Domain Expertise for Digital Twin

Connect **Monitor** **Control** **Digital Twin**

Detection, measurement, analysis of physical parameter measurement

Force **Displacement** **Torque** **Pressure** **Temperature**
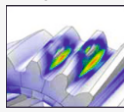
Augmented analytics for fast, predictive and insightful engineering.
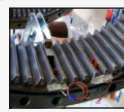
Stress **Strain** **Gear Tooth Mesh** **Torsional Deflections** **Strain Gauging**

SeethaRam Mechatronics Pvt Ltd provides products and solutions for IOT Ecosystem. Apart from catalog offerings, you may contact us for OEM Solutions, Sub-Systems, Import Substitution from design to manufacturing.

Few Customers

WABCO | Rane | TATA | ASHOK LEYLAND | CATERPILLAR | Brakes India Limited *Where Safety Matters* | ALSTOM

BRIDGESTONE | MAGNA | DAIMLER | BOSCH | COMSTAR | TEMPEL

MANDO | TT INDIA | JINDAL | FEDERAL MOGUL | TAFE | Valeo | SUPER AUTO FORGE | GKN Driveline

pricol | IGARASHI MOTORS INDIA LTD. | Turbo Energy Ltd | ROYAL ENFIELD | Mahindra | talbros QH Talbros Ltd. | TITAN COMPANY

SAINT-GOBAIN | Wheels India Limited | EMR | DELPHI·TVS | APOLLO TYRES | RENAULT NISSAN | Ford

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Intelligent WorkShops **WORKSHOP**

Intelligent & Connected Workshops
Asset Management in Workshops/Factories

Production Machines | **Testing Machines** | **Material Handling Equipment** | **Fixed Assets** | **Emergency Equipments** | **Training Equipment & Simulators**

Remote Asset Tracking | **Asset Health/ Condition Monitoring** | **Asset Lifecycle Management**

SeethaRam
Mechatronics Pvt Ltd
Bridging Gaps | Bridging Gaps in Technology

Connect **Monitor** **Control**

Our Solutions

Vibes

AgriWarehouse
Ambient Condition Monitoring for warehouse

Agriculture
Soil & Ambient Condition Monitoring for Agriculture make Digital Agriculture easy

Healthcare Industry
Ambient Condition Monitoring in Healthcare Industry

Span
Structural Monitoring of Bridges

Maintenance
Condition Monitoring for Rotating Machines

Our IIoT Platform - An Overview Vibes & Views

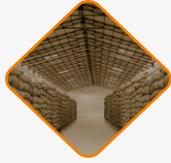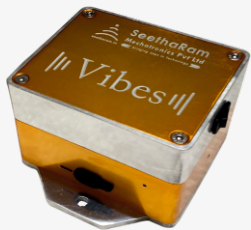Vibes is the hardware (Sensor Node, Edge Devices) that brings the last-mile data from the field machinery to the data stream.

| Build quality	USB - C	High Resolution Sensor	Truly wireless	Multi Protocol	FOTA Updates
Tough Industrial Grade Aluminium Enclosure	User friendly & Latest Gen	Connected with high resolution & reliable sensors	No need of extra gateway	http:// MQTT Support both HTTP & MQTT	Enable Vibes upgrade the firmware remotely & seamlessly

User Friendly Device Configurator App
Easily configure **Vibes** with cloud server and also can view device data locally on App Dashboard

Vibes-Eco Dashboard

TEMPERATURE
26.48 °C

HUMIDITY
85.18 %

LUX
336.84 lx

MOTION
Motion Detected

Wi-Fi Credentials

Configure Server Details

Views is a browser-based solution which enables a ready dashboard for all types of VIBES IoT Devices registered online.

Multi Protocol   Multi-view Dashboard   Data Log   Data Set Points

Event / Push Notifications   User Rights Management   Activity Logs
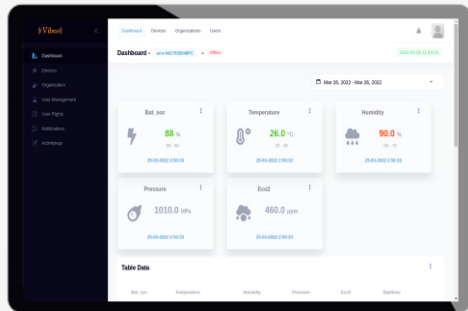
Intelligent & Connected Workshops

Modernized Workshops require data on every Asset in the plant. Data v.i.z it's location, KPIs, Health Condition and many other critical inputs than can enable compute Asset Reliable Lifecycle Management. This enables the Factory Manager and the Senior Management to have a bird's eye view on the *Overall Equipment Effectiveness (OEE)* & Profitability of the assets in Workshop. Asset Management, Connected Machinery on IoT makes the intelligent data available on cloud and data historian of Events and Policy Execution. This evolved Data over reasonable time frame is the greatest input for any informed decision making and evaluation.

Remote Asset Tracking, Asset Health/Condition Monitoring, Asset Lifecycle Management can pave way to further automation as Predictive & Preventive Maintenance and link Material Management & Asset Workflow Automation. Our solutions can bring in data and visualization for:

Asset Management in Workshops/Factories

Remote Asset Tracking

Asset Health/ Condition Monitoring

Asset Lifecycle Management

Predictive Asset Maintenance

Asset Workflow Automation

Remote Asset Tracking: Retrieve information on the various assets anytime, anywhere.

- Asset Location & Listing
- Availability indicators.
- Functional indicators.
- Reliability indicators.

Asset Condition Monitoring: Cost-efficient and proactive method to evaluate the various health indicators, performance thresholds, associated risks, events, and recommendations for improved asset health.

Asset Lifecycle Management: Comprehensive record of asset portfolio optimizing the profit generated by the various assets throughout their lifecycle.

Discovery Value Assessment (DVA)… Starting the Journey

Environment Study
- Understand the need of Digital Transformation
- Business outcome expected from the transformation
- Understand the fitment of the use case as a part of the overall business process
- Understand the process flow of the use case

Detailing of inputs
- Equipment details
- Understanding the Critical Asset
- Critical process parameters currently monitored
- Understand existing automation architecture
- Analyze Equipment Failure & their consequence
- Analyze Process Upsets & their consequence

Identify KPIs / Levers and Drivers
- Identify Process KPIs
- Understand the linkage between the process KPIs & business outcome
- Map applicable levers.. Process & Equipment visibility, Value Chain Integration, Advance Analytics & Decision support

Determine Outcomes
- Business outcome vs deliverable
- RoI Calculation

Recommend Digital Transformation Plan
- Use Case Prioritization
- Define the digital strategy against each use cases
- Solution Architecture for the use case
- Implementation methodology
- Deliverables & Acceptance Criteria
- Timelines