International Energy Services Conclave
Enables enterprises to prevent unscheduled downtime; optimises maintenance & energy costs

#ScheduledtoPredictiveMaintenance
Predictive Maintenance is the biggest use case in the creation of Enterprise 4.0

Main challenges faced by customer:

- Avoid **unplanned downtime** of assets and associated **production loss**
- Improve **OEE** (Overall Equipment Effectiveness) and **Asset life**
- Avoid **line losses** across the enterprise

The need is **Actionable Insights.** Not **Data.**

**OPTIMISE KEY OPERATIONAL FACTORS:**

- 70% **Probability of unplanned Downtime**
- 30% **Maintenance Costs**
- 10% **Energy Costs**
About the Technology
SmartSense: An end-to-end solution in your Enterprise 4.0 journey

Reduce Asset Downtime
Identify asset degradation | Root cause & Recommendation
#PredictiveMaintenance
#ReduceMaintenanceCosts

Reduce cost of power
Energy analyses & network leakage identification | Root cause & Recommendations
#EnergyEfficiency

Real-time monitoring
#Digitization

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How is SmartSense different from other PdM solutions?

Algorithms built and enhanced using 4.1 TB data
#Reliable due to data acquired from customers over the past 7 years

AI and ML models use Data + Domain
#BrandAgnostic

Asset Breadth
Motors | Transformer | Pumps | Chillers | Compressors | Elevators | Escalators

Strong acquisition layer
#Retrofit with 200 types of sensors | 12 Industry protocols | 3rd Party Integration with SAP, BMS and other IoT Platforms

Proven solution
Over 4000 equipment being analyzed using Power Genome

SaaS
Implementation in #OpexModel with minimal upfront investment

Minimum Sensors.
Maximum data.

#Scalable
#CostEffective

SmartSense ‘Power Genome’ ensures early detection of machine degradation, using least possible sensors

Increase in Noise and Vibration levels
Increase in Temperature

Early Warnings from PowerGenome

Equipment Condition

Motors | Transformer | Pumps | Chillers | Compressors | Elevators | Escalators

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SaaS
Implementation in #OpexModel with minimal upfront investment
We are your partners through the digital transformation journey

01 Predictive Maintenance
- Reduction in unscheduled downtime

02 Condition Monitoring
- Reduction of maintenance cost

03 Enterprise Insights
- Reduction of energy cost

04 Enterprise Dashboard

Consulting - Implementation - Impact

- UNDERSTAND ORGANIZATIONAL KPI’S
- UNDERSTANDING OF EXISTING INFRASTRUCTURE
- DIGITIZATION PLAN
- LAYOUT DEPARTMENTAL KPI’S
- BUILD A INDUSTRY 4.0 ROADMAP
- USER PERSONA IDENTIFICATION

IMPACT CONSULTING IMPLEMENTATION
700+ Installations across 300 global organizations

**FMCG**
- Coca-Cola
- Cadbury
- PepsiCo

**Automobile**
- Yamaha
- Honda
- Fiat

**Pharma & Chemical**
- INTAS
- Zydus
- Pfizer

**OEM**
- Blue Star
- KHS
- ELGi

**Utilities**
- Government of India
- Tata Power
- BSNL

**Commercial Buildings**
- Embassy
- Future Group
- Jindal Steel & Power

**Other Manufacturing**
- Godrej Interio
- Mahindra

**Partners**
- Amazon Web Services
- SAP
- JLL
- Accenture
- EY
- Vodafone
- Deloitte

**Global Recognition**
- Lighthouse Activity
- Most Innovative Energy Efficiency Product
- Global Climate Solver Award
- International Ashden Award
SmartSense is a key partner in our digital transformation journey. We started our engagement in one plant for data acquisition, and are now incorporating SmartSense solutions to all our Indian plants.

-Yuvraj Jadhav
Deputy General Manager - SKF
### Case Study: Embassy India

<table>
<thead>
<tr>
<th>Year</th>
<th>Coverage</th>
<th>Asset Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2 Electrical points</td>
<td>2 Critical Assets</td>
</tr>
<tr>
<td>2018</td>
<td>164 Electrical Points</td>
<td></td>
</tr>
</tbody>
</table>

### Impact:

- **$2150** Prevention of Chiller downtime
- **$118575** Reduction in Energy costs

For any large tech parks, every small saving can mean a lot when aggregated. SmartSense identifies all energy optimization opportunities across network. This coupled with the Predictive Analytics technology has converted Embassy into a ‘smart’ building.

- Shailendra Nath  
  Head Operations - Embassy Services
In this digital era, it is critical to use technology to carve a niche for oneself. And in the OEM space, the best way to create this edge is by connecting, understanding and delighting customers. This has been the main purpose behind our engagement and partnership with Ecolibrium

- Manish Kothari, 
  Managing Director 
  Rhino Machines
START YOUR SMARTSENSE JOURNEY TODAY.