

Company Profile



About Us



Noise and Vibration problems?

We will make it ***sound*** better!



SV IDEAS is an independent NVH testing and consultancy company based in Bengaluru- India, providing engineering service globally. We are a flexible, self-motivated, result-oriented and customer-focused team. With an industrial experience of over 20 years in the wide domain such as **Automotive, Railways, Marine, Energy, Construction and Mechanical industry**, we can serve OEMs, component manufacturers, part suppliers, institutions, and commodity manufacturers.

We use proven state-of-the-art technology, instrumentation and software. Our focus is on providing deliverables with utmost care right from the selection of sensors & instrumentation, mounting of sensors, good measurement method, accurate acquisition of data, scientific analysis, and viable solution. We strive to provide authentic and unbiased results those are easily accepted by our customer's customers or end-users.

We aim to provide top class service and solutions to our customers which improve the competitiveness of a product. We want to be part of the success with our clients, as a partner rather than a contractor!



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Service Partners

JOINT VENTURE IN INDIA



Services

- Railways Noise & Vibration Control
- Trackform Vibration Isolation
- Construction Noise and Vibration
- PA (Public Address) & VA (Voice Alarm) system Acoustic Design
- Architectural Acoustic Design
- Building Acoustics
- Machinery Vibration Analysis
- Environmental Noise Assessment
- Finite Element Analysis (Dynamics & Fatigue)

Products

- Tuned Mass Damper
- SilentUp Noise Barrier
- SilentCUBE Noise Enclosure

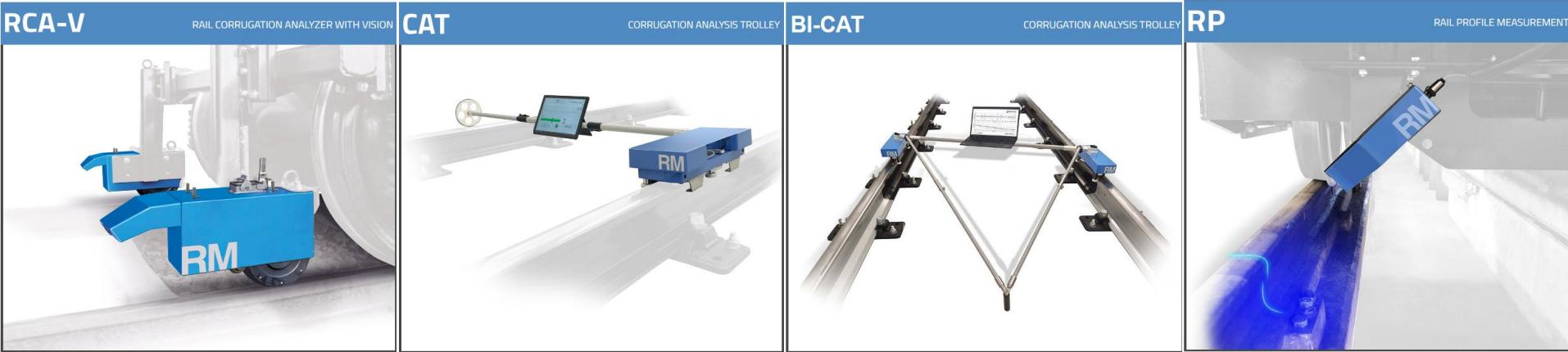


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RailTechnology GmbH, Germany

RailTechnology focusses on design, manufacture and supply of specialized high tech rail maintenance equipment and technologies as well as high accuracy rail measuring instruments for Mainline and Urban railway systems.



Rail Corrugation Analyzer with Integrated Vision

CAT, Corrugation Analysis Trolley

BI-CAT, Dual Rail Corrugation Analysis Trolley

RM-RP, Rail Profiler



Soft dB, Canada

For more than 20 years, Soft dB has been recognized worldwide for its expertise in acoustics and vibration. Soft dB offers innovative products and services to improve productivity and working environments. Soft dB excels at optimizing acoustic comfort for residential, commercial and industrial clients.



Piccolo II Sound Level Meter

Type 2 Integrating SLM & Datalogger



Mezzo Precision Microphone

USB Microphone with on-board DSP



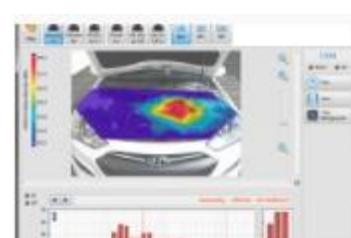
Mezzo Intensity Probe

USB Intensity Probe with on-board DSP



Mezzo 4ch Analyzer

Multifunction USB 4-Ch. Analyzer



I-Track Noise Mapping System

Sound Intensity Mapping Software



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Dewesoft, Austria

Dewesoft is the leading provider of high-end data acquisition systems (DAQ), DAQ software.

Products

- Multi Channel Data Acquisition System**
- Transducers: Accelerometer (IEPE / Charge)**
- Acoustics / Force / LVDT / Displacement**
- Strain & Stress (Full / Half / Quarter Bridge)**
- Temperature / Thermocouple / RTD**
- Current / Voltage / Flow / TEDS Compatible**
- Applications: Scope / FFT / Acoustics / Recorder**
- Modat Test / Order Tracking / Balancing**
- Torsional Vibration / Power**
- Orbit / Polay / Nyquist Representation**



PCB Piezotronics, USA

PCB Piezotronics revolutionized the sensor industry with groundbreaking ICP® (Integrated Circuit Piezoelectric) technology. By integrating piezoelectric elements with built-in amplifiers, PCB set a new standard for dynamic measurements that are more accurate, reliable, and cost-effective. This innovation continues to help engineers and manufacturers worldwide improve product quality and optimize system

Products

- Accelerometer
- Microphones
- Sound level Meters
- Impact Hammers
- Force sensors
- Vibration Shakers
- Pressure Transducers
- Cables
- Strain Sensors
- Load cells

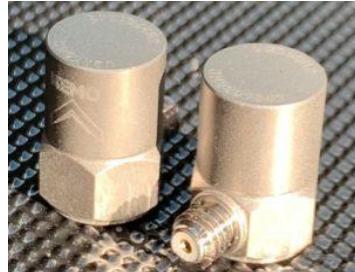


Kemo,

High performance Electronic Filter and Kemo Limited has proven itself as a global leader in pioneering high performance electronic filters, signal conditioning instruments and Vibration measuring Solutions for industry.

Products

- Accelerometers
- IEPE Amplifiers
- IEPE Impact hammers
- Charge amplifiers
- Cable assemblies
- Calibration services
- Sensor accessories



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DJB Instruments, UK are specialist suppliers in vibration measurement, piezoelectric accelerometers, IEPE accelerometers & signal conditioning equipment.



Monoaxial
Charge Output



Monoaxial
IEPE



Triaxial Charge
Output



Triaxial IEPE



High Shock



Handheld
Vibration
Meters



Accelerometer
Calibrators



DC MEMS
Accelerometer



Micro g,
Seismic



Industrial
Accelerometers



Accelerometer
Accessories



Low Cost



MEMS Signal
Conditioner



Impact
Hammers



Our Scope

SET

- Estimate
- Benchmark
- Set Target
- Simulate
- NV Plan/Design

MEASURE

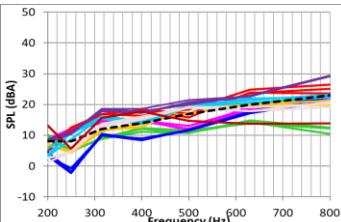
- Measure
- Sound
- Vibration
- Force
- FRF.....

ANALYZE

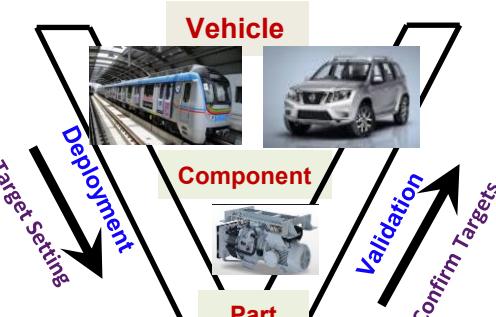
- Pass/ Fail
- Certification
- Compare
- Study
- Root Cause

SOLVE

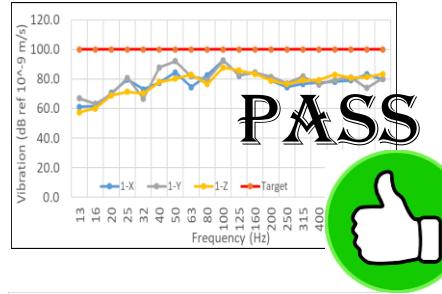
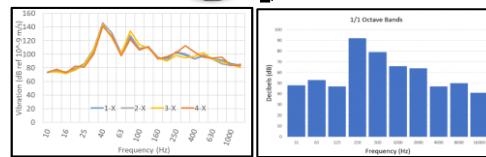
- Feasibility
- QCT
- Countermeasure idea & Solution
- Conclusion



Target = 45 dB
(ref 1 N)



Target LAeq= 63 dBA



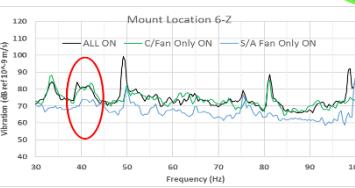
<Issue> : Vibration levels at 40 Hz did not meet the target

<Root Cause> : Fan bracket resonance excited at 22 Hz

<Mechanism> : Resonance phenomenon occurring during fan operation

<Countermeasure>: Use of damper sheet to reduce the Vib

Fig. Root Cause Investigation



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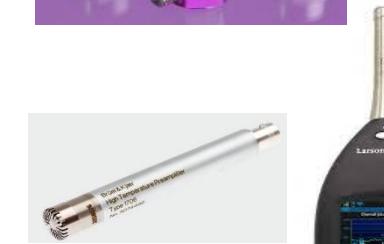
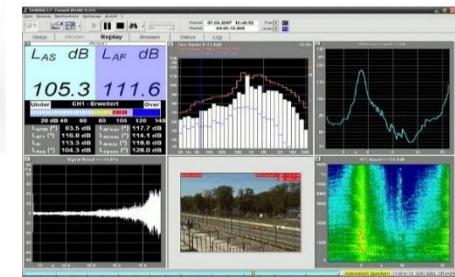
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Resources

- ❖ Data Acquisition System- 32 ch
- ❖ Accelerometers, Microphones
- ❖ Field calibrators
- ❖ Sound Level Meter
- ❖ Sound Intensity Probe
- ❖ Impact Hammer, Force sensors

Third party

- ❖ Vibration & Shock tables
- ❖ Impedance Tube, Damping Test Rig
- ❖ Anechoic Room, Reverberation Chamber

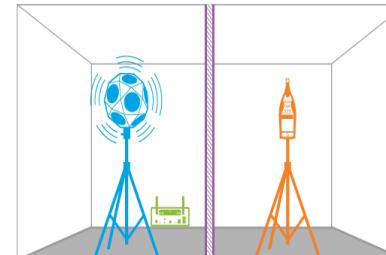
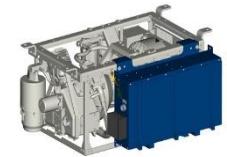


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Our Market

- ❖ Railways & Components
- ❖ Automotive & Components
- ❖ Earthmoving & Farm equipment
- ❖ Marine
- ❖ Buildings
- ❖ Machinery
- ❖ White Goods
- ❖ Community Rooms
- ❖ Special rooms

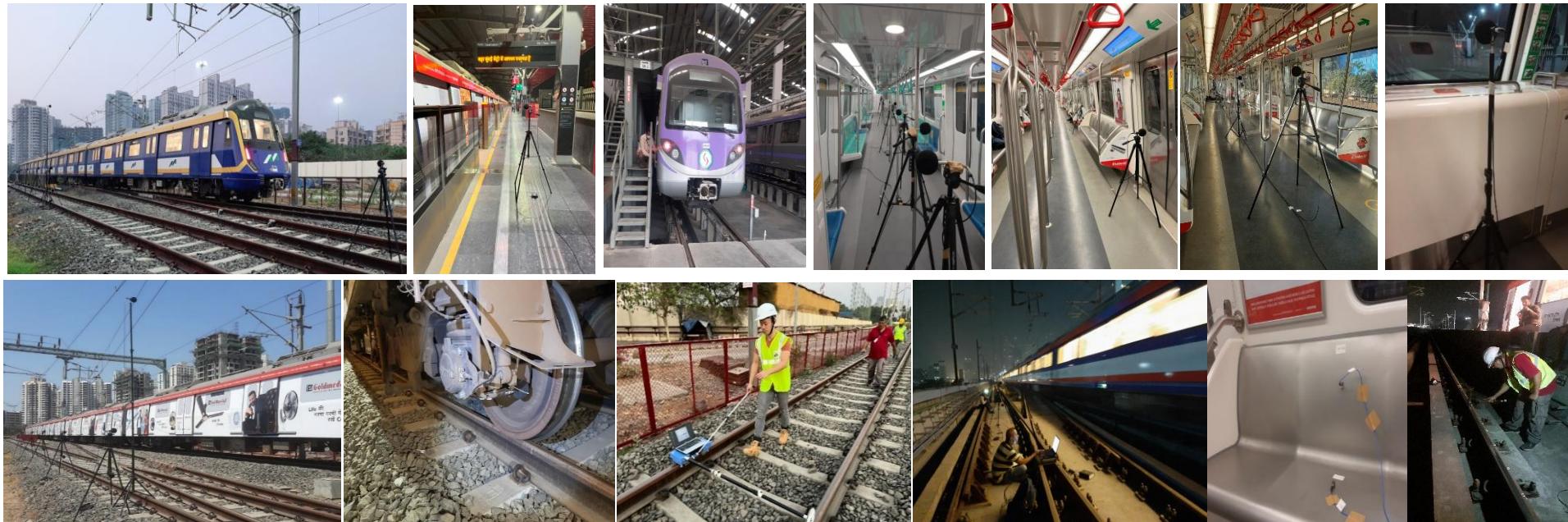


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Professional Experience

- ISO 3095 Acoustics — Railway applications —Measurement of noise emitted by Railbound vehicles
- ISO 3381 Acoustics – Measurement of noise inside rail bound vehicles
- DIN EN 15461 Railway applications - Noise emission - Characterization of the Dynamic Properties of Track Sections for Pass By Noise Measurements
- BS EN 15610 Railway applications - Noise emission - Rail roughness measurement related to rolling noise generation
- ISO 2631-1 Mechanical Vibration and Shock- Evaluation of Human Exposure to Whole-Body Vibration
- ANSI S1.13-2005 Identification and evaluation of prominent discrete tones for Squeal Noise using Prominent Ratio Method



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Professional Experience

- 49 CFR § 229.129 Sound Pressure Level test, and Endurance Tests for a Locomotive Horn
- BS EN 14750, Railway applications Air Conditioning Tests for Rolling Stock- Type Tests
- Consultancy on Noise, Vibration and SBN parameters of Rail HVAC
- Test plan and mitigation measures to reduce sound power and induced vibration performance of Rail HVAC and Compressors
- Detailed test plan, measurements, and analysis work of Rail Noise & Vibration
- Consultancy on Acoustic Material testing for Automotive applications
- Design & Consultancy on noise reduction of Industrial Blower
- Acoustic Testing and Evaluation of Cooling Fan
- Environmental Noise Impact study of a Transformer Yard



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Professional Experience

- ISO 9614-2, Determination of sound power levels of noise sources using sound intensity -- Part 2: Measurement by scanning
- ISO 3744, Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane
- MIL STD 740-2, ISO 9614, ISO 3744: Structure Borne Noise & Air Borne Noise Study and Factory Acceptance Trials of Integrated Diesel Generator (DG) Sets of Ships



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Professional Experience

- JIS D1601, Resonance frequency detection test and Vibration endurance test for a Bus Radiator assembly-240 HP
- Measurement of Air-borne Noise, Structure-borne Vibration, and Floor Vibrations on Building structure
- IS 12180 - Method for noise measurement of agricultural tractors : Bureau of Indian Standards
- IS 12180-1 & 2: Tractors and Machinery for Agriculture and Forestry - Noise Measurement - Method of Test, Part 1: Noise at The Operator's Position - Survey Method, Part 2: Noise Emitted When in Motion.
- IS 9935: Power Tiller - Test Code : Bureau of Indian Standards
- Testing and Evaluation of Acoustic Control System for DG Set
- Training on NVH Theory and Application to Automotive Shock Absorber Company

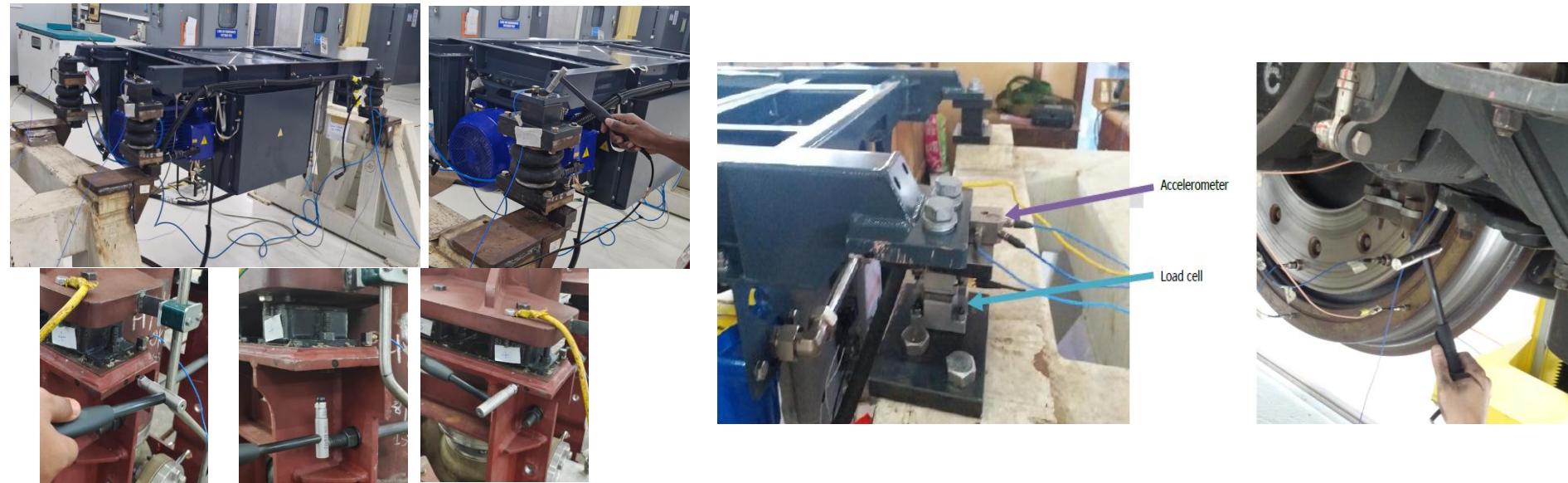


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Professional Experience

- ISO 9611 Acoustics - Measurements of velocity at the contact points of machinery when resiliently mounted
- DIN 52221 Test in building acoustics- Measurements of structure-borne sound produced by technical appliances in buildings
- ISO 7626-5 Vibration and shock – Experimental determination of mechanical mobility - Part 5: Measurements using impact excitation with an exciter which is not attached to the structure
- ISO 7626 Parts 1&2 Experimental determination of mechanical mobility
- Dynamic Force measurements of Railway equipment on the mounting structure



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Professional Experience

- BS EN IEC 61373 Railway applications – Rolling stock equipment – Shock and vibration tests
- IEC 60068-2-6, Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)
- IEC 60068-2-27, Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock
- Customized specifications E.g., Random vibration tests for extended frequency range of 5~1200 Hz, Shock tests for shorter or longer impulses



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Professional Experience

- **Marine valves Type Tests:** Noise Emission Tests as per MIL-STD-1474D, Military Standard and Structure-borne Vibratory Acceleration Measurements MIL-STD-740/2
- **Oil Separator Machines:** Air-borne Noise tests as per ISO 3744, and Structure-borne Vibratory Acceleration Measurements MIL-STD-740/2
- **Pump Type Tests:** Noise Emission Tests as per MIL-STD-1474D, Military Standard And Structure-borne Vibratory Acceleration Measurements MIL-STD-740/2
- Acoustic Testing Inside **Locomotive Cab** According to Standard EN ISO 3381:2005
- Noise & Vibration Testing on **bridge and girders** at Airport Metro Express Line
- Cranking Noise measurements in the passenger vehicles and Noise measurements of the **Starter Motors**
- Acoustic Testing and Vibration tests on **RO plants**
- Noise and Vibration measurements in the **passenger vehicle**
- Vibration measurements on **Roof of the building**- Study of vibration transfer from Blowers
- Noise and Vibration measurements on **Gear Box Motor**
- Structure-borne & Air-borne Noise measurements on **D.G. Set**
- Noise Performance Benchmarking, Testing, Product Development and Performance Evaluation of Dash Insulator & Vibration Dampers for Passenger Vehicles
- Physical Lot Vehicle NVH Development and Confirmation, and Design Reviews
- NVH Performance Analysis and Countermeasure Plans for Quality Score Improvement for a car
- NV Performance Planning to Achieve Acceleration Noise, Booming Noise & Idle Vibration Targets for a Vehicle



THANK YOU

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