Industry Experts

Condition Monitoring Solutions

Engineering Graduates

This program helps you to understand the importance of enhancing machine reliability and techniques used in most of the plants to achieve the same.This program also deals with basic understanding of different techniques used in condition monitoring.

PRECISE
RELIABILITY SOLUTIONS PVT. LTD.

www.precise-reliability.com

About us :

Precise reliability solutions is a startup with the ambition to become the leading service provider of CBM services to the all type of industries.

PRS offer reliability excellence by continuously adopting to new technologies in the field and provide solutions.

To be a trusted partner in providing quality machinery diagnostic services to every customer and contribute to enhance their knowledge with latest technologies and achieve safe, healthy , Keep trouble free, and environmental friendly machinery and provide a world class quality consultancy service to every customer.

PRS is also providing Skill development program in reliability maintenance along with ISO LEVEL-1&LEVEL-II certified programs.

Our Vision & Mission :

To become a trusted partner in providing quality machinery diagnostic services to every customer by continuous improvement and exceeding the customer expectations made possible with latest technologies that offer safe, healthy, trouble-free, environmentally friendly and world-class consultancy services.

As reliability engineering is relatively new to Indian industries, there is a serious lack of skilled people. Our mission is to improve the skill-set of the students and provide industries with skilled people. We guide students to become experts in both data collection and to develop analytical skills to become a reliability engineer.

CLIENTS & TECHNOLOGY PARTNERS

POWER MECH Growth Unlimited · JCL JANKI CORP LIMITED · DB Power Ltd · OEG INDIA

THERAPIVA · Sri Sai Oilfield Equipments & Marine Services · Dalmia Bharat Group · GVK BIO

Flamboyant solutions · AURICLE · acoem · semapi INSTRUMENTS PVT.LTD

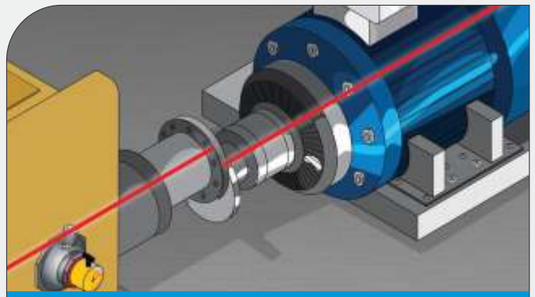
INDUSTRY WE SERVE

- Power
- Marine
- Oil & Gas
- Pharmaceuticals
- Cement
- Chemical
- Pulp & Paper
- Metal
- Mining
- Glass Manufacturing
- Automobiles
- Fertilizer

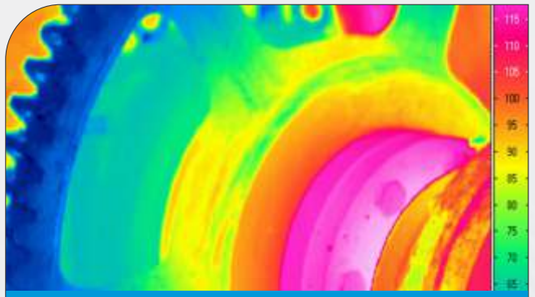
- Reliability Engineering
- Predictive Maintenance
- Machine Analytics
- Digital Services

Our Scope

Vibration Analysis



Laser Alignment



Thermography

NDT Analysis

MCSA Analysis

Oil & WDA Analysis

Acoustic Analysis

Turbo Machinery

Importance of Reliability in Maintenance

The general philosophy of a condition monitoring system is to know the behavior of the equipment and perform maintenance on equipment only when required, without sacrificing machine reliability.

Condition monitoring system does not predict the exact time that equipment will fail. Even if it could, this information would be of little help, since in case of important equipment's like turbine, transformers; entire generating unit would have to be shut down to perform the required maintenance.

There are different CBM techniques available to analyze machine properly.

Some of the techniques that will be discussed are as follows

- Vibration Analysis
- In-Situ Dynamic Balancing
- Laser Alignment (Shaft/Pulley)
- Electrical Thermography
- Mechanical Thermography
- Lube Oil analysis
- Remote Vibration Data Analysis
- IIOT

Seven days training program including theoretical concepts of reliability techniques and hands on experience of instruments.

Hands on experience of instruments include data collection of vibration and Thermography and alignment.

Brief discussion of latest advanced technologies in reliability maintenance.

Importance of improving machine reliability across different industries.

Discussion with industry leaders in reliability maintenance and prospect of carrier advance.

PROGRAM CONTENTS

Maintenance Strategies	
Importance of maintenance	SESSION-1
Introduction to maintenance stratagies	
Benifits of RCM	

Condition Monitoring Techniques	
Introduction to CBM techniques	SESSION-2
Over View	
Vibration Analysis	
Thermography	
Oil Analysis	
Wear Particle Analysis	

Vibration Analysis	
Basic Principles (Frequency & Amplitude)	SESSION-3
Data Collection	
Introduction to Phase	
Introduction to Time Waveform	
Introduction to Spectrum & Fault Diagnosis (Basic)	

Data Acquisition	
Types of sensors	SESSION-4
Basic differences between shaft vibrations and casing vibrations	
Types of Sensor Mounting and its importance	
Uses of Low sensitive and High sensitive accelerometers	

Reliability Improvement	
Importance of Dynamic Balancing	SESSION-5
Importance of Alignment	
Importance of Precision Lubrication and frequent analysis	

Case Studies	
Unbalance	SESSION-6
Misalignment	
Mechanical Looseness	
Bearing Problems	
Common Electric Problems	
Common Gear Box & Belt faults	
Common Pump, Blowers & Compressor Problems	

Practical and hands on experience	
Vibration Analyzer	SESSION-7
Thermal Imager	
Laser Alignment	

PROGRAM SNAPSHOT & BENEFITS

- Will help you under stand the importance of maintenance in a better way.
- Transform yourself from a passout student to a reliability engineer.
- Make yourself standout in the group with better understanding of reliability and how you can help improve plant maintenance.
- Will help you in enhancing your job profile, as more industries are looking for people with advanced maintenance skills .
- Increase in job opportunities as most industries are employing reliability engineers.
- Hands on experience of different instruments will help you quick start in you job role.
- Provides hands-on training to the participants on basics of Plant Maintenance, Strategy, Reliability Engineering, Planning, Scheduling, Project Management, RCM, PdM Technologies such as Vibration Analysis, Balancing, Laser Alignment, IR-Thermography, Ultrasonic, Oil Analysis, MCSA, NDT Techniques to identify, manage and eliminate plant failures.

COURSE CO-ORDINATOR

Mahesh Kumar

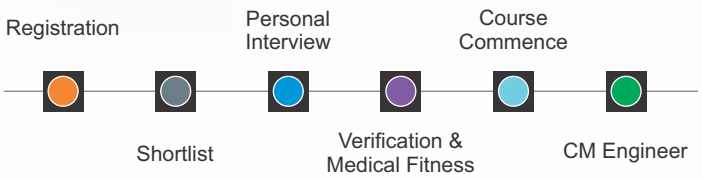
Completed engineering through MRGI, HYDERABAD, TELANGANA. Has 12+ years of experience in reliability maintenance (Vibration analysis, thermograph, oil analysis) and has experience in working various industries. Some of therm including Power plant, Smelter. Worked in KCM-Zambia in Copper smelting unit. Certified vibration Level-II analyst and participated in essential of machinery lubrications.

Program Details

Duration	**7 Days**
Eligibility	**Diploma / B.E. / B.Tech in Mechanical** **Diploma / B.E. / B.Tech in Electrical**
Batch Size	**10 Numbers**
Location	**Hyderabad, India**
For Registration	**www.precise-reliability.com**

After successful completion of training program candidates will join as a CM Engineer.

Selection



PRECISE
RELIABILITY SOLUTIONS PVT. LTD.

Plot No. 302, Flat No. 1240, Swamy Ayyappa Society,
Madhapur, Hyderabad, Telangana - 500081.
Phone : 040-4450796, +91 7337555525
Email : info@precise-reliability.com
www.precise-reliability.com