

RELIABILITY CONDITION MONITORING (RCM) TRAININGS



Mr. MUNNA NAIK

Mr. PRAVEEN GUPTA

Mr. ABHAY CHANDAJKAR

"World Class training thru experienced & ISO certified
Instructors in Industry 4.0, Reliability Centered Maintenance
(RCM) & Condition Monitoring"



Mr. GANTI SUBBA RAO



Dr. EDWIN BROWNE



Mr. SUNDAR N.P.

WELCOME

Welcome to AIVA Tech Solutions Private Ltd. We are a Reliability Condition Monitoring (RCM) focused organization and takes pride in delivering value to the end users in Oil & Gas, Petrochemicals, Power, Metal & Steel, Process Industries in India and Middle East, through cutting edge Industry 4.0 IIOT solutions, high-quality RCM Consultancy Services and World Class Reliability Condition Monitoring Trainings with ISO certifications. Our motto and driver for business growth and customer satisfaction is 'Enhancing Asset Reliability thru human and artificial intelligence'!

With 50+ years of combined experience in the industry in Middle East and India, we have a proven track record in adding value to the Reliability Centered Maintenance (RCM) program of global organizations, by improving Plant asset reliability, reducing unscheduled asst downtime, bridging RCM Skill gaps and optimize their maintenance operations.

Some of our key RCM deliverables include:

- ✓ Industry 4.0 IIOT Turnkey projects
- ✓ Root Cause Analysis (RCA)
- ✓ Root Cause Failure Analysis (RCFA)
- ✓ Preventive Maintenance Optimization (PMO) and Failure Mode Effect Analysis (FMEA)
- ✓ Remote Asset Monitoring & Analysis of Machine anomalies
- ✓ Dynamic insitu balancing and Precision Shaft Alignment
- ✓ Motor Current Signature Analysis
- ✓ Thermography Inspection services
- ✓ Ultrasound PdM Inspections
- ✓ Vibration Analysis VA CAT-I, II, III, IV, Asset Reliability-A, E and L trainings with ISO certifications
- ✓ CMRP, RCM and NDT Trainings

Please come and experience our world-class Asset Reliability Maintenance & Condition Monitoring training offerings and how could Accredited, internationally recognized certification could jumpstart your career and take your Plant maintenance program to the e (RCM) program to the next level!



Why TRAININGS ?



- ✓ Streamlines operations to minimize rework and machinery issues, bolstering reliability and productivity
- ✓ Proactively identifies machinery wear and malfunctions, averting potential catastrophic failures
- ✓ Targets root causes to diminish recurring equipment failures. Fosters employee retention by offering continuous skill development opportunities, resulting in heightened industry proficiency and reduced turnover.
- ✓ Enhances productivity by imparting advanced techniques for more efficient task completion.
- ✓ Recognizes and rewards veteran employees who embrace new skills and challenges.
- ✓ Elevates practical understanding of machinery dynamics and vibration analysis theory.
- ✓ Facilitates troubleshooting and resolution of complex machinery issues



WHY ARE WE YOUR TRUSTED TRAINING PARTNER?

Mobius Institute® has recognized AIVA Tech Solutions (AIVA) as an Authorized Training Centre (ATC) and Authorized Examination Centre (AEC)

Why should you trust us as your reliable training partner?

- ✓ 100+ Years of combined Training Instructors Experience
- ✓ 500+ Engineers Trained in India & Middle East
- ✓ Classroom, Hybrid & Virtual training delivery facilities
- ✓ Industrial Practical Case Studies
- ✓ Internationally Certified In-house training instructors as per ISO standards

Our esteemed clientele- typical



CONTACT US



+91 40 40896623, +91 9154965991/92
+ 968 2486 6146, +968 91360424



www.aivatechsolutions.com



AIVA Tech Solutions Private Ltd.

Plot No: 139, Prashanth Hills, Gachibowli,
Hyderabad, Telangana-500032, India
Email: info@aivatechsolutions.com;
sales@aivatechsolutions.com



AIVA- MTPS LLC

P.O. Box: 582, Postal Code: 117
Wadi Al-Kabir, Muscat,
Sultanate of Oman
Email: abhay.chandajkar@aivatechsolutions.com



Our Comprehensive RCM Training portfolio includes:

An effective condition monitoring strategy can significantly reduce the life cycle costs of Plant Assets, but this requires an investment in monitoring technology and expertise. Condition monitoring specialists play an important role in this monitoring strategy, for analysis & diagnostics of machinery data, but they are difficult and expensive to find. Training with International Certification could fill this skill & expertise gap. We help our customers in this endeavour by offering a comprehensive range of condition monitoring, reliability & maintenance training courses.

✓ **Vibration Analysis**

Vibration Analyst training enables Plant Engineers to diagnose machinery problems independently, which facilitates in taking proactive remedial measures, well in advance to avoid unwarranted equipment failures. The Analyst skills & knowledge is recognized into basic level (CAT I), intermediate (CAT II), advanced (CAT III) and master (CAT IV), as mandated in ISO 18436-2 standard.

✓ **Precision Shaft Alignment**

Shaft misalignment is the usual culprit behind high levels of machine vibrations and premature equipment failures. Implementing laser alignment helps minimize machine downtime thereby maximizing OEE of Plant assets, at reduced power consumption. This Mobius Institute® precision maintenance course covers basic concepts of machine alignment with emphasis on laser alignment methods, industry best practices and wide range of case studies concerning real Plant problems.

✓ **Balancing rotating machinery**

Participants in this Mobius Institute® course, will learn to identify and diagnose machine unbalance thru phase analysis coupled with traditional spectral analysis. Attendees will learn to perform single and two plane field balancing using vector & three-point circle methods. Tips and tricks from years of field experience would be shared with students throughout the course to ensure they can successfully perform dynamic balancing insitu.

✓ **Asset Reliability Practitioner (ARP)**

Practitioners, Engineers and Team leaders involved with improving the reliability and performance of industrial facilities, should be recognized for their knowledge, experience, and contribution. Mobius Institute® ARP certification recognizes the knowledge and basic experience of people involved with Reliability improvement in an organization at design, engineering, procurement, maintenance or operations and management stages.

AIVA Tech Solutions Private Ltd.



Plot No: 139, Prashanth Hills, Gachibowli, Hyderabad, Telangana-500032, INDIA
Phone: +91 40 4089 6623, 9154965991/92/93



Bait Al Hajiry Building, PC: 117 Wadi Al-Kabir, Muscat, Sultanate of Oman
Phone: + 968 2486 6146, +968 91360424



Reliability Condition Monitoring Trainings with accredited ISO certification

- ✔ Vibration Analyst with ISO 18436 Cat I, II, III & IV
- ✔ Precision Shaft Alignment, Dynamic Balancing
- ✔ Asset Reliability Practitioner-A, E & L
- ✔ RCM, CMRP and Maintenance Scheduling & Planning
- ✔ Infrared Thermography & Field Lubrication
- ✔ Turbomachinery Analysis & diagnostics
- ✔ Industry 4.0 IIOT AI/ML

“World Class trainings meeting your expectations and bridging your RCM skills gap”

OUR EXPERIENCED & CERTIFIED TRAINERS



**CMRP, VA Cat III,
ARP-A, CRE
Trained
Ultrasound Level I
Industry 4.0 RCM
Consultant**

Mr. Praveen Gupta

Praveen is the Chief Operating Officer @AIVA Tech Solutions and is driving business growth, overseas business partnerships and RCM trainings for MEI.

He is an experienced Industry professional and RCM thought Leader, with **23+ years expertise** in Condition Monitoring & Reliability with Vibration Analyst Cat III Certification, CMRP, ARP-A, Ultrasound Level I Certifications as per ISO 18436.

He had been trained at dB Pruftechnik Germany, Meggitt Sensing Systems Switzerland, Bruel & Kjaer Vibro Germany and have been a regular speaker in MobiusConnect® & other International Conferences on Reliability & Asset Management in India and abroad. He is a respected Thought Leader on Industry 4.0, Asset Digitisation, and Reliability improvement strategies and has published more than 22 technical papers in leading International Conferences & journals. He has provided 10+ RCM training sessions in India & Middle East.



**VA Cat III
Cert No. 2101-0000B),
ARP-E trained
RCM Facilitator**

Mr. Munna Naik

He is a Turbomachinery Specialist and RCM facilitator, having more than **18 Years of experience** in condition monitoring and asset reliability management with a demonstrated history of working in the top world class companies in Oil & Gas, Petrochemicals like SADARA & SABIC and other manufacturing industries.

He is skilled in various Condition Monitoring Techniques, RCA, Continuous Improvement, Commissioning and startup, Project Execution, Reliability Engineering and Asset Optimization.

He is an authorized Mobius ARP and VA Cat I- III Trainer and has conducted many training sessions in India & Middle East.

OUR EXPERIENCED & CERTIFIED TRAINERS



VA Cat IV

Cert No. 0808-0102C

**TurboMachinery
Diagnostics Expert**

Mr. Ganti Subba Rao

Mr. Ganti Subba Rao is an Experienced Machine diagnostics Engineer and CBM Analyst. He has over **35 years** of varied experience in teaching of mechanical engineering subjects, power plant project execution, training & consultation and condition monitoring of rotating equipment vibration analysis in power plants, oil & gas industry, petrochemical and fertilizer industries. Hands on experience in insitu balancing of steam and gas turbines, compressors, fans of various ratings

He is an approved VA Cat I to IV Instructor on Mobius Institute® panel and has trained more than 1000 Engineers in India and abroad in Machinery Vibration Analysis, since 1998 and has guided successfully, about 225 + candidates, for VA Category II, III & IV Vibration Analysts Certification in India and Middle East.



**RCM 2&3,
PRACTITIONER,
FACILITATOR &
CONSULTANT**

Dr. Edwin Browne

His qualifications include D.M.E., A.M.I.E., M. Tech. PhD (Mech. Eng. Glasgow, UK), PhD (IICM, USA), D. Min. (IICM-USA), C Eng., FIE, M.I.S.T.E." His pioneering research in Condition monitoring led to an Empirical equation known as Edwin's factor, a condition monitoring parameter for any rotating equipment in its operating condition.

He is one of the leading RCM specialists in the world, could transfer the classical RCM concept by John Moubray and Risk based RCM3 by Marius Basson, into industrial realisation to achieve operational excellence. He led the implementation of the optimised Maintenance strategy developed through RCM in Petroleum Development Organisation (PDO) and OQ Gas Network (OQGN) in the Sultanate of Oman. He has been, teaching, training and practicing RCM since 2004.

OUR EXPERIENCED & CERTIFIED TRAINERS



**RCM CONSULTANT
& TRAINER**

Mr.Sundar N.P.

Mr. Sundar is an experienced RCM Consultant with over **40 years varied Experience** in the field of Maintenance, Reliability and Project Consulting with expertise in implementing RCM in varied Industries viz. Food, Cement, Petrochemical, Automobiles, Steel, Packaging, Wind Energy, Power Plants, Glass, Pulp & Paper etc.

He has been instrumental in implementing an Operator Driven Reliability (ODR) program to ensure high reliability, availability of machines & achieve required Plant OEE. He has led many initiatives of Preventive maintenance Optimisation (PMO) across Industries.



**CMRP, VA Cat II,
MLA II, CRE
Trained
RCM Leader &
Lubrication
Specialist**

Mr.Abhay Chandajkar

Abhay is a seasoned reliability, and maintenance professional with **30+ years of rich & diverse experience** in Oil & Gas Industry with specialization in Engineering, Reliability & Condition-based Maintenance.

He is a certified ILM-2 (The Institute of Leadership & Management Foundation Limited (ILM HK). He is also an Associate Member-Institute of Mechanical Engineers-UK. He has been selected and served as President-MCS Bahrain (2013-14). And Hon. Secretary-Institute of Engineers (India), Bahrain Ch. (2012-14). He is a fellow member of the Council of Vibration Specialists (CVS). He is a Certified Maintenance & Reliability Professional (CMRP) from the Society of Maintenance and Reliability Professionals (SMRP) US and is a trained Certified Reliability Engineer (CRE) from ASQ.

Our Training Portfolio-1

1. ISO 18436 Vibration Analyst Course and Certification			
Ref.	Title and description	Course duration	Prerequisites for training
VA CAT I	Junior Vibration Analyst <ul style="list-style-type: none"> Starting place for new vibration analysts For personnel collecting vibration data For those who want a better understanding of vibration monitoring and analysis 	4 days	None
VA CAT II	Intermediate Vibration Analyst <ul style="list-style-type: none"> For personnel with at least 18 months of experience for certification For those who want to improve their monitoring and analysis skills How to test machines, diagnose faults accurately, perform special diagnostic tests and correct certain faults 	5 days	None or CAT I (With 18 months experience)
VA CAT III	Advanced Vibration Analyst <ul style="list-style-type: none"> For personnel with at least 36 months of experience for certification In-depth learning of diagnostic techniques to determine faults accurately and make precise recommendations to solve machinery malfunctions 	5 days	CAT II (With 18 months experience)
VA CAT IV	Expert Vibration Analyst <ul style="list-style-type: none"> For personnel with at least 60 months of experience for certification In-depth study of advanced signal processing, cross-channel measurements, system dynamics, resonance testing, orbit and centreline plot analysis, rotor dynamics, journal bearings analysis and flexible rotor balancing 	45 hrs of online training + 4.5 days of classroom course	CAT III (With 60 months experience)
2. Asset Reliability Practitioner (ARP)			
ARP-A	Asset Reliability Practitioner [ARP] Advocate (A) <ul style="list-style-type: none"> Introduction, Understanding the benefits, Supporting the program, how do we make the change, Understanding Failure The defect elimination concept, The asset reliability strategy, Work management Spares management, Precision & proactive work, Condition monitoring, Breaking out of reactive maintenance, Continuous improvement. 	4 days	None
ARP-E	Asset Reliability Practitioner [ARP] – Engineer (E) <ul style="list-style-type: none"> Strategy & Implementation, People Management, Defect Elimination Reliability engg., Asset Strategy Development, Work & Spares management Precision Skills (Precision and proactive maintenance) Condition Monitoring, Continuous improvement 	5 days	ARP-A
ARP-L	Asset Reliability Practitioner [ARP]-Leader (L) <ul style="list-style-type: none"> Overview of the Implementation Strategy, Establishing value of the initiative Establishing corporate wide support, supporting information management & Key measures & metrics, defect elimination, Managing a multi-site program Overcoming common challenges, continuous improvement. 	5 days	ARP-E
3. Precision Machine Alignment & Dynamic Balancing			
TMA001	Precision shaft alignment- 2-day course <ul style="list-style-type: none"> Introduction to shaft alignment Alignment definitions & Pre alignment checks, rough alignment, soft foot Alignment methods and Hands on laser alignment tool 	2 days	None
TDB001	Balancing Rotating machinery- 2-day course <ul style="list-style-type: none"> Introduction to Balancing, Types of balancing, Balancing methods- Vector plot & Three-point circle method. Calculation on Vector plots & Three-point circle method 	2 days	None

Our Training Portfolio-2

4. Maintenance, Reliability & Infrared Thermography			
Ref.	Title and description	Course duration	Prerequisites for training
RCM004	Reliability Cantered Maintenance (RCM)- An Insight <ul style="list-style-type: none"> • Provide attendees with understanding of RCM Methodology defined in SAE JA1011 standard • To train the participant on the new techniques that are utilized for implementing Reliability Centered Maintenance in the Industry • Participant will be trained on different RCM philosophies 	4 days	1 year
CMR005	Certified Maintenance & Reliability Professional (CMRP) <ul style="list-style-type: none"> • The objective of this training is to equip with current best practices and prepare them for Certified Maintenance & Reliability Professional Exams. • Learn how SMRP Body of Knowledge can be applied to optimize Asset reliability and availability. • Create Vision, Mission, and guiding principles for Maintenance Organization. • Failure Analysis, Reporting & Corrective Action System (FRACAS). • How to create and optimize Maintenance Strategy (PM/PdM). • Understand Leading & Lagging KPIs 	5 days	None
MPS004	Maintenance Planning, Scheduling & Work Control (MPSWC) <ul style="list-style-type: none"> • In depth understanding of types of maintenance and activities involved • To help understand how to choose cost effective maintenance strategy. • To help explain fundamentals of planning & scheduling -KPIs, Concept, Process, Tools, Techniques, Methodologies, Reporting, Analysis etc. • To explain in detail Planning, Scheduling, Work Management Process. • Importance and working principle of CMMS, as a maintenance planning & scheduling tool • To highlight importance of spare parts and inventory management 	4 days	1 year
IRT004	Infrared Thermography Category I training, ISO 18436-7 Category I <ul style="list-style-type: none"> • Maintenance practices • Principles of infrared thermography • Thermal conduction, convection & radiation • Equipment & data acquisition • Safety rules and guidelines • Thermography applications, general image interpretation guidelines and report generation 	4 days	1 year Pass the Ishihara color perception test
FLT004	Field Lubrication Category I Training, ISO 18436-1 <ul style="list-style-type: none"> • Science of machinery lubrication • Lubricant construction and performance characteristics • Lubricant selection & applications • Lubricant contamination and condition control • Lubricant storage, handing best practices • Lubricant sampling and analysis 	4 days	1 Year (Work experience of 16 hours per month in lubricant analysis COMMON)
TMA004	Turbomachinery Analysis and Diagnostics Training Course <ul style="list-style-type: none"> • Vibration basics • Vibration vectors, phase analysis as diagnostic tool • Time based plots, Orbits, Amplitude-Phase-Time (APHT) plots • Polar, BODE and Shaft Centreline Plots • Half & Full Spectrum Plots, Basic Rotor Dynamics • Plant Turbomachinery Case Studies, Q&A and Evaluation Tests 	4 Days	3 Years (Work experience in Machinery vibration measurement & analysis)

Our Training Modes:



A I V A

Instructor Virtual Mode



Hybrid Mode



For more information &
Online training registration

SCAN HERE



Classroom Mode





Self –paced learning:

If you speak English and wish to learn from Jason Tranter, the founder of Mobius Institute, then you may choose to take the video-based training option. Think of it like "Netflix for the brain". Each course is made up of a number of videos; some shorter and some longer. You will be registered in our "Learning Management System (LMS)" which will guide you through the lessons. You can repeat the videos if it is not 100% clear the first time. Within the LMS, you will also access the quizzes that will help you assess your understanding of the lessons. One of the benefits of the video-lessons is that you can learn when and where it suits you. You can watch them on any device that supports a Webpage. When you have completed the lessons and quizzes, you will be ready to take the exam.

Learning Management System

iMobius Institute™ mega-e-learning system, iLearnReliability™. E-learning offers true self-paced learning: listen to a slide, watch the 3D animation, interact with the simulator, and complete a quiz at the end of the session. If it all makes sense – move on. If not, repeat.

- E-learning ensures that everyone learns the same thing in the same way.
- E-learning can be taken many times.
- E-learning is great for new hires: many large organizations use iLearnReliability for onboarding training.
- E-learning is fun and engaging.
- Tens of thousands of people have been trained with our e-learning products

iLearnReliability™. was created so that you can "educate everyone" – get everyone in the organization aligned, speaking the same reliability language, and all pulling in the same direction. iLearnReliability [ENTERPRISE] actually includes iLA and iLB, but you can buy them separately. Please contact us for more details about any of these training courses and corporate learning platforms.



Training Calendar

2024-2025

May2024

- Vibration Analyst CAT-II - ISO 18436
- Precision Shaft Alignment 2-day course

June2024

- Asset Reliability Practitioner- Advocate course
- Turbomachinery Analysis & Diagnostics course

July2024

- Vibration Analyst CAT-I - ISO 18436
- Balancing rotating machinery 2-day course

Aug2024

- Vibration Analysis basic course- 3 days
- Certified Maintenance Reliability Professional (CMRP) Training

Sep2024

- Vibration Analyst CAT-I - ISO 18436
- Vibration Analyst CAT-III- ISO 18436
- Infrared Thermography CAT I

Oct2024

- Vibration Analyst CAT-II - ISO 18436
- Precision Shaft Alignment 2-day course
- Field Lubrication Cat I- ISO 18436-1

Nov2024

- Vibration Analyst CAT-III- ISO 18436
- Certified Maintenance Reliability Practitioner (CMRP) course

Dec2024

- Vibration Analyst CAT-IV - ISO 18436
- Vibration Analyst CAT-I - ISO 18436
- Asset Reliability Advocate (ARP-A)

Jan2025

- Asset Reliability Practitioner- Advocate
- Vibration Analyst CAT-II - ISO 18436
- Balancing rotating machinery 2-day

Feb2025

- Asset Reliability Practitioner- Engineer (ARP-E) course
- Precision Machine Alignment- 2-day course

Mar2025

- Vibration Analyst CAT-IV - ISO 18436
- Maintenance Planning & Scheduling Training Course

Apr2025

- Vibration Analyst CAT-II - ISO 18436
- Reliability Centered Maintenance- An Insight

Training Terms & Conditions



Training course locations*

India : AIVA Tech Solutions Private Ltd.,

Plot No: 139, Prashanth Hills, Gachibowli, Hyderabad, Telangana-500032, INDIA

Phone: - (+91) 4089 6623, +91 91549 65992

Email: - info@aivatechsolutions.com; sales@aivatechsolutions.com

Oman: AIVA- Modern Technical Products & Services LLC

Bait Al Hajiry Building, Postal Code: 117 Wadi Al-Kabir, Muscat, Sultanate of Oman

Phone: - (+968) 2486 6146, +968 77214824, +968 9136 0424

Email: abishai.barshikar@alhajiry.com; abhay.chandajkar@aivatechsolutions.com

* We could also organize courses at customer sites or nearby 4/5* hotels. Further, we can organize private onsite courses (certified and non-certified) at site locations around the world.



Registration / Enrolment

Courses are arranged upon request and agreement on scope, fixed dates, and price. Please contact info@aivatechsolutions.com or sales@aivatechsolutions.com, no later than 6 weeks prior to the agreed course date. Please indicate number and name of course.



Commercials / Price

Will be quoted based on the standard description above. Changes in scope must be agreed prior to planning the course.



Commercials / Prices - included (standard)

Course documentation, refreshments, and lunch.



Commercials / Prices - Not included (standard)

Travel, transportation to/from hotel, accommodation, breakfast, dinner, sightseeing, entertainment, etc.



Payment

Payment in advance upon receipt of invoice.



Cancellation

For cancellations, the following terms apply:

- Up to 6 weeks prior to the course – free of charge
- 4 weeks prior to the course – 25% of course fee will be charged.
- 2 weeks prior to the course – 50% of course fee will be charged.
- Cancellation later than 2 weeks prior to the course -100% of course fee will be charged.
- If the course includes eLearning material, no cancellation and refunds are possible after the student logs in.
- AIVA Tech Solutions Private Ltd. reserves the right to cancel or reschedule any scheduled course, due to insufficient enrolment.



Hotel Accommodation

Reservations at the participant's cost can be arranged upon request.

In addition to the above, our Standard Terms and Conditions as specified in techno-commercial proposal will apply.



Bridge your skills gap with our World-Class RCM Trainings

For more information on our training capabilities and a proposal catering to your needs,

Contact us:



INDIA

AIVA Tech Solutions Private Ltd.

Plot No: 139, Prashanth Hills, Gachibowli,
Hyderabad, Telangana-500032, India
Email: info@aivatechsolutions.com;
sales@aivatechsolutions.com
Phone: +91 40 4089 6623,
9154965991/92



OMAN

AIVA- Modern Technical Products & Services LLC.

Bait Al Hajiry Building, Wadi Al-Kabir,
Postal Code: 117, Muscat,
Sultanate of Oman
Email: abhay.chandajkar@aivatechsolutions.com
Phone: + 968 2486 6146, +968 91360424



A I V A®

