



Arrelic[®]
Your Reliability Partner.



TRAINING CATALOGUE

ARRELIC TRAINING INSTITUTE

arrelic.com/training

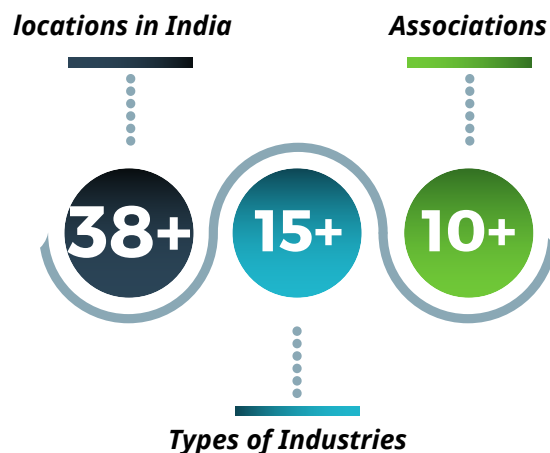
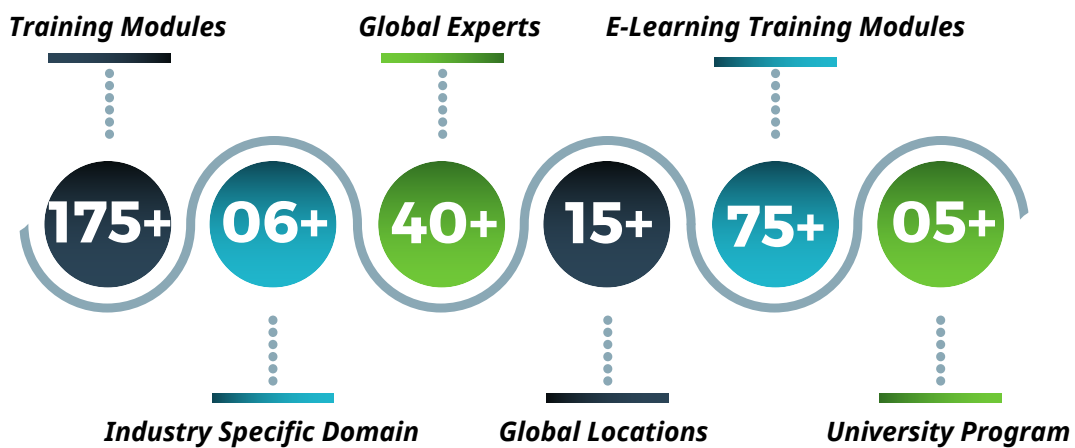
TABLE OF CONTENT

1. Arrelic Institute	1
2. Clients	2
3. Participants	3
4. Industry	4
5. Maximize Value Through Training	5
6. Key Offerings	6
7. Arrelic Institute : Advantage	7
8. Corporate Training Solutions	8
9. Training Courses	9
I) Reliability Engineering	9
II) Asset Management	11
III) Predictive Maintenance	12
IV) IoT, Big Data & Analytics	15
V) Operation and Maintenance	15
VI) Best Practice	16
VII) Industrial Safety	17
10. University Program	18
11. PMD Engineer	19
12. Reliability Q	20
13. Testimonials	21
14. Contact	22

ARRELIC INSTITUTE

Arrelic Institute is focussed to equip both industry professionals and college graduates with the skills and knowledge required for bridging the desire state of workforce which industry needs to compete globally. Arrelic Institute provides over 75 different types of customized training program ranging from Reliability Engineering, Asset Management, Best Practice, Operation & Maintenance, Predictive Maintenance, NDT, Predictive Analytics, Quality, Risk & Safety. Arrelic Institute conducts public training and workshops in 38 locations across India and 15+ International locations. We are working for large corporate house from 15 different types of industries ranging from Airlines, Automobiles, Cement, Chemicals, Defence Manufacturing, FMCG, Glass, Marine, Metals, Mining, Oil & Gas, Power, Pulp & Paper, Facility Management and Fertilizer.

ARRELIC INSTITUTE: AT A GLANCE



CLIENTS



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PARTICIPANTS FROM DIFFERENT COUNTRIES



INDUSTRY



Aerospace & Defence



Automobiles



Cement



Chemical



Facility Management



FMCG



Glass Manufacturing



Metal & Mining



Msme & Small Business



Oil & Gas



Pharmaceuticals



Power



Public Sector

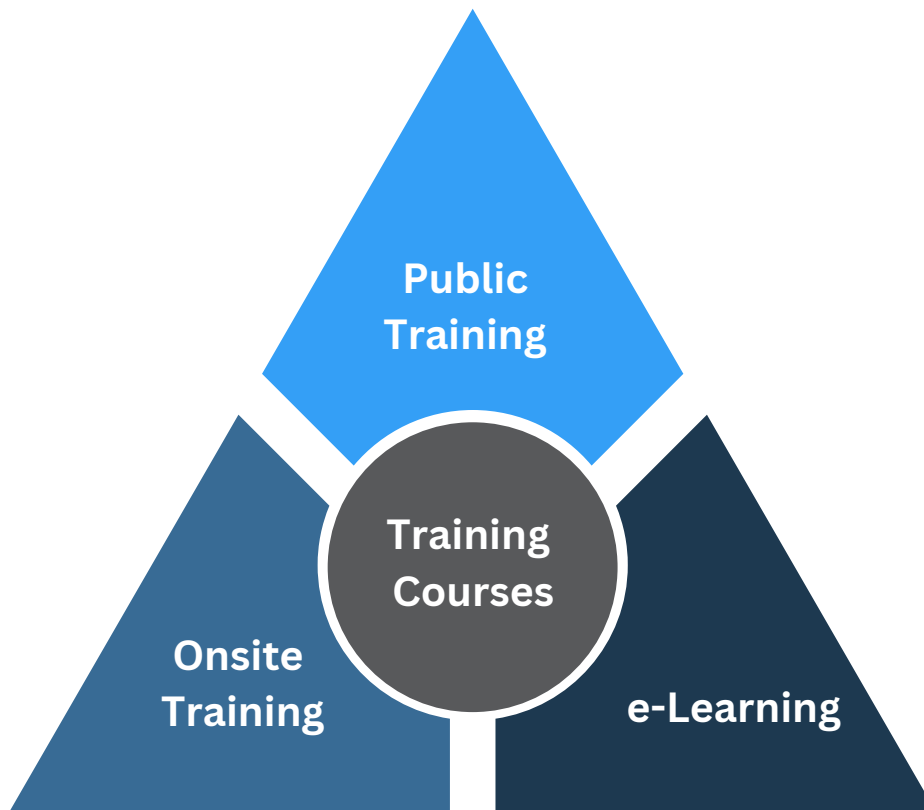


Pulp & Paper



Transport & Logistic

MAXIMIZE VALUE THROUGH TRAINING



Training are critical pieces of a site reliability training program. For professionals dealing with millions of dollars in equipment and the responsibility of keeping that equipment running effectively and efficiently, training is necessary to enhance their competency and eliminate equipment downtime. The most effective plant managers know that the return of investment for training programs is well worth the time and money spent, because training results in product quality, cost, and profitability remaining at optimum levels for the organization. Our training covers a variety of Reliability Engineering, Asset Management, Best Practice, Plant Operation Maintenance Predictive Maintenance and IoT, Big Data & Predictive Analytics disciplines. Our goal is to equip industry professionals with the skills and knowledge necessary to achieve sustainable reliability improvement. Our instructors have extensive field experience across many industries. Their knowledge and training expertise adds incredible value.

KEY OFFERINGS

Public Training

This course is typically hosted by ARRELIC at a location of their choice and is open to all participants. The courses in our Public Training Program are designed to meet the significant training needs of the sector, and are delivered face-to-face, where participants can share ideas and experiences in a professional learning environment.

Onsite Training

Arrelic on-site Training is a flexible, cost-effective option that allows you to train as many or as few employees as you need—from a single team or department to everyone in your organization. This is a training course held at your company facility for your internal participants only. Arrelic can tailor the training program around your operation and provides companies of all sizes with valuable benefits.

Hosted Course

Arrelic runs several hosted courses for corporate personnel/ individuals interested to learn the nuances of various engineering and corporate training programs provided by world-class trainers and industry leaders. This is a training course held at your company facility for your internal participants and other external participants approved by your company.

Learning Packages

Arrelic provides extensive learning packages designed to meet the prerequisites of present day demanding career opportunities. Materials are designed meticulously so that learners can learn from them without much help from an instructor. Our established courses are developed and delivered by industry and academic experts to provide real world, immediately applicable knowledge and skills.

e-Learning

Arrelic Institute offers a growing catalogue of e-learning offerings - highly interactive, Web based courses that enable you to deliver the timely, focused training. E-learning courses complement our tried-and-tested classroom based training, allowing users to improve or maintain their skills by building online learning into their schedules.

ARRELIC INSTITUTE : ADVANTAGE

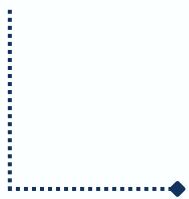


BENEFITS

Our training and development solutions are designed to help organizations and individuals improve their personal competence and skills, which are core enablers of sustainable business development and competitive advantage.

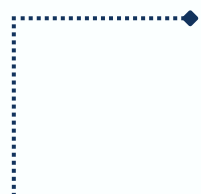
IMPROVEMENT & GROWTH

Our courses offer the in-depth knowledge and skills needed for continual business improvement.



EMPLOYEE ENGAGEMENT

Training offers significant improvements in employee motivation levels. Businesses are 2.5x more likely to fail if they don't train their staff properly.



CAREER DEVELOPMENT

Training and certifications like the CMRP program offer the individual credentials, recognised across all industries in the manufacturing world.

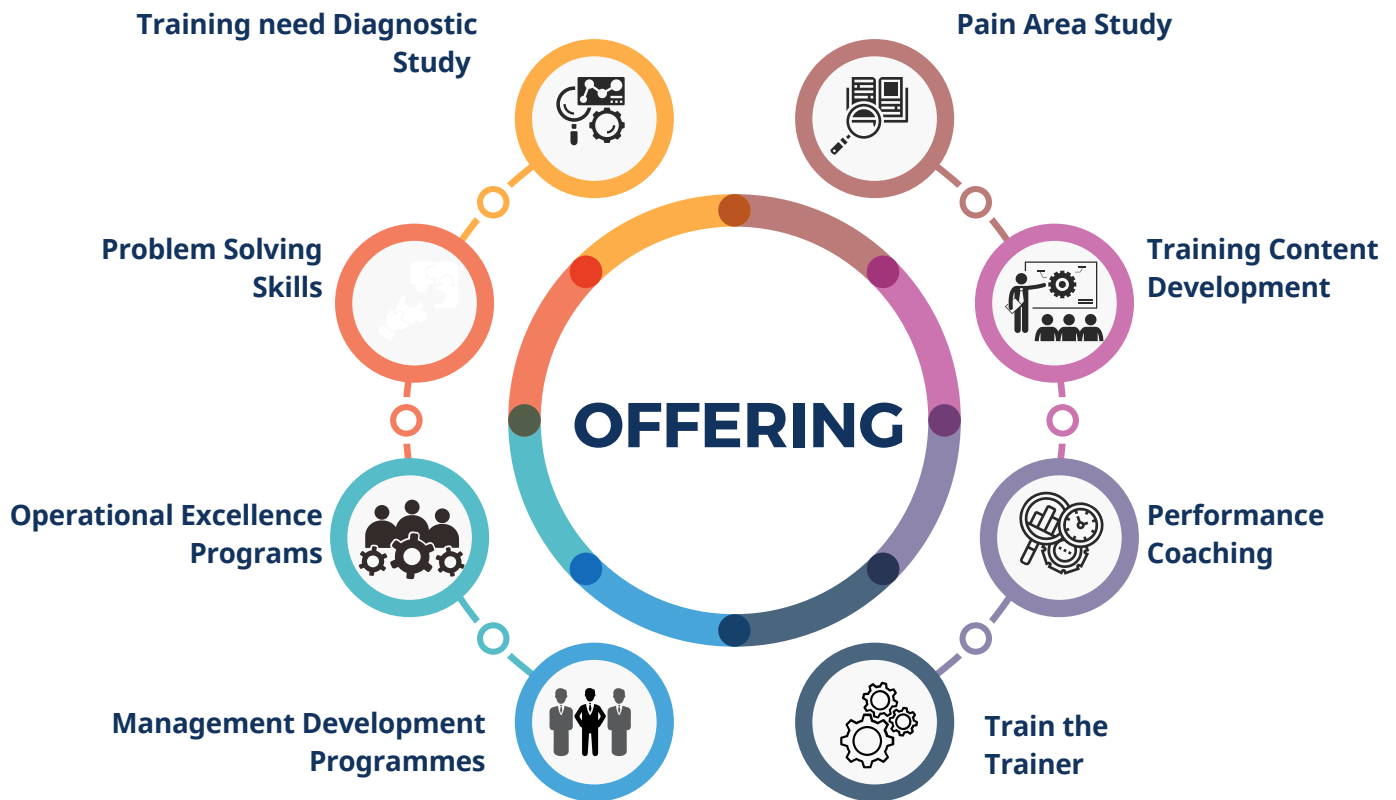


EXPERT KNOWLEDGE

With expert trainers that are experienced practitioners in their field, our training moves beyond theory, giving you valuable real-world insights.



CORPORATE TRAINING SOLUTIONS



Arrelic Corporate Training Programs, targeted at both large enterprises and Small & Medium Businesses (SMBs), deliver training that is focused and meets the requirements of a 21st century workplace. These corporate training programs additionally integrate proven best practices into business processes and redirect surplus training capital into core business solutions.

TRAINING COURSES

RELIABILITY ENGINEERING

Arrelic's Reliability Engineering is designed to emphasize dependability in the life cycle of a product. Dependability or reliability describes the ability of a system or component to function under stated conditions for a specified period of time. Reliability engineering deals with the estimation, prevention and management of high levels of "lifetime" engineering uncertainty.



Training Code	Name of the Training Program	About Program	Training Duration
1110	Reliability Concept - Introduction	Basics of reliability engineering, data analysis and modelling	02 Days
1120	Reliability Concept - Advance	Data Collection, Analysis and Corrective Action - Data Collection Methodology	03 Days
1140	Reliability & Maintenance Excellence	Modern methods and techniques on the most critical aspects of maintenance management	05 Days
1150	Value Driven Reliability	Business and management, equipment reliability, manufacturing process reliability, association and leadership, and work administration.	03 Days
1210	RAM Studies	Simulating the configuration, operation, failure, repair and maintenance of equipment.	02 Days
1310	Reliability Centered Maintenance (RCM) - Basic	Understand different types of Failure Patterns and Maintenance types.	01 Day
1320	Reliability Centered Maintenance (RCM) -Overview	A comprehensive introduction to RCM and its principles.	02 Days
1350	Reliability Centered Maintenance (RCM) - Advance	Describing RCM process flow and learning the different approaches.	03 Days
1410	Risk Based Inspection (RBI) - Basic	Using risk as a basis to prioritize and manage the efforts of an inspection program.	02 Days
1450	Risk Based Inspection (RBI) - Advance	Understand methodologies that can be applied for repairable systems analysis.	03 Days

Training Code	Name of the Training Program	About Program	Training Duration
1050	Plant Maintenance & Diagnostic Engineer	Designed to bridge the gap between theoretical learning and practical aspects of the Industry requirements with guaranteed employment.	11 Months
1135	Reliability Focused Maintenance & Best Practices	The most effective mix of preventive, predictive and reactive maintenance considering criticality, availability and operating environment.	03 Days
1250	Design for Reliability	DFR is a systematic, streamlined, concurrent engineering program	01 Day
1570	Safety Instrumented System - Overview	SISs give security control capacities and supplement the Basic Process Control System which gives normal process control	02 Days
1580	Calibration	Ability to trace your measurements back to a known and accepted standard	01 Day
1610	Root Cause Analysis(RCA):-Basic	Depth view of the fundamental aspects of problem solving with the specific objective of creating a structured and practical process for solving problems	01 Day
1650	Root Cause Analysis(RCA):-Advance	Develop your data-trending process to identify systemic problem areas	03 Days
1692	Types of Abnormality	Arrelic defines types of abnormality such as Anything which is not normal, deviation from the standard, deviation from the requirement.	01 Days
1710	PM Optimisation (PMO) - Basic	An applied QA methodology that focuses on improving current maintenance strategies by ensuring cost effectiveness	01 Day
1750	PM Optimization (PMO) - Advance	Increase productivity of maintenance & production	02 Days

ASSET MANAGEMENT

Arrelic's Asset management is a systematic process of deploying, operating, maintaining, upgrading, and disposing of assets costeffectively. The term is most commonly used to describe people and companies that manage investments on behalf of others. It is also managing assets to achieve the greatest return, and the process of monitoring and maintaining facilities systems.



Training Code	Name of the Training Program	About Program	Training Duration
2400	Asset Performance Management	Cost-effectiveness in asset maintenance, to promote asset longevity, performance and capability.	02 Days
2405	Asset Management Strategy Development	A detailed understanding of value of physical assets, and costs associated with maintaining	02 Days
2408	Asset Management Planning	Asset management plans is to communicate information about assets & provide a defined level of service in the most cost-effective manner.	01 Day
2410	Asset Integrity Management	Maintaining the asset in a fit-for service condition while extending its remaining life in the most reliable, safe, and cost effective manner.	03 Days
2450	ISO 55000	The key elements required in asset management for the duration of the life cycle of equipment.	02 Days

TRAINING COURSES

PREDICTIVE MAINTENANCE

Arrelic's Predictive maintenance (PdM) techniques are designed to help determine the condition of in-service equipment in order to predict when maintenance should be performed.



Training Code	Name of the Training Program	About Program	Training Duration
5005	Introduction to Predictive Maintenance (PdM/CBM)	Detecting the onset of a degradation mechanism with an aim of correcting the degradation prior to significant deterioration in the component or equipment	03 Days
5020	Basic Vibration Analysis	Introduction to maintenance practices including technologies such as vibration analysis, thermography and oil analysis	02 Days
5125	Dynamic Balancing & Precision Shaft Alignment	Balancing machines by rotating parts quickly and measuring the imbalance using electronic equipment	02 Days
5150	Precision shaft alignment	Remove destructive forces that cause premature bearing failure and reduce seal life	01 Day
5210	IR - Thermography Level I	Typical electrical problems and their potential impact on the operation of a facility	02 Days
5220	IR-Thermography Level II	Strengthening and improving thermography skills for condition monitoring and predictive and Preventive maintenance applications	03 Days
5230	IR-Thermography Level III	Acquiring and developing the necessary people, resources and technologies	05 Days
5340	MCSA for Induction Motor Diagnosis & VFD	Basic simulator providing all the tools needed to learn and study balancing, alignment, resonance, bearing defects, crack shafts	02 Days
5410	Industrial Lubrication Fundamentals	Understand the fundamentals of lubrication and oil analysis, and get more from your lubrication strategy	02 Day
5415	Industrial Lubrication Fundamentals & Machinery Lubrication	Introduction to optimal lubrication practices, which covers the common activities of a lubrication technician.	02 Days

Training Code	Name of the Training Program	About Program	Training Duration
5420	Machinery Lubrication Level I	Improve the reliability of M/C with the use of lubricant	02 Days
5425	Machinery Lubrication Level II	Measuring lubrication effectiveness and how it impacts return on net assets	02 Days
5510	NDT - Introduction	Introduction to NDT history, certification, advantages and limitations of the main methods	03 Days
5010	Fundamentals of Vibration	Reduce machine vibration data into usable plot formats	02 Days
5030	Intermediate Vibration Analysis/Category II Compliant	Ability to select the appropriate measurement equipment, technique and measurement settings for a range of machinery type	03 Days
5040	Advanced Vibration Analysis/Category III Compliant	Diagnose all of the common faults conditions with rolling element and sleeve bearing machines	05 Days
5110	Dynamic Balancing	Balancing machines by rotating parts quickly and measuring the imbalance using electronic equipment	02 Days
5250	Infrared Inspection of Electrical Systems	Introduction to thermal imaging systems for electrical inspection applications	01 Day
5255	Infrared Inspection of Mechanical Systems	Mechanical problems including motors, bearings, belts and conveyor systems and their potential impact on the operation	01 Day
5260	Infrared Inspection of Building Envelopes & Roofs	Evaluates energy loss and moisture problems within building envelopes and insulated roofing systems	01 Day
5280	Infrared Inspection of Petrochemical Facilities	Thermal imaging to locate and evaluate problems in oil and chemical processing plants	01 Day
5310	Introduction to Motor Current Signature Analysis	Fault detection in machineries using motor current signature analysis	01 Day
5430	Oil Analysis Level I	Develops an understanding of best practice oil analysis techniques	02 Days
5435	Oil Analysis Level II	Analysis of oil properties including those of the base oil and its additives	03 Days

Training Code	Name of the Training Program	About Program	Training Duration
5520	Ultrasonic Testing (UT) Level I	Perform testing and interpret the results as per standards	01 Day
5525	Ultrasonic Testing (UT) Level II	Identify the suitability of ultrasonic testing for all materials and inspection applications	02 Days
5530	Radiographic Testing (RT) Level I	The principles and theory of performing radiographic testing, including a perspective on radiographic materials, industrial radiography, and protection	01 Day
5535	Radiographic Testing (RT) Level II	RT Level-II Responsibility: Non-conventional Radiography, Techniques in radiography ,Codes, standards and Procedures, Acceptance Standards	02 Days
5540	Magnetic Particle Testing (MT) Level I	Best method for the detection of fine, shallow surface cracks in ferromagnetic material.	01 Day
5545	Magnetic Particle Testing (MT) Level II	Responsible for care and maintenance of testing machines and accessories	02 Days
5550	Liquid Penetrant Testing Level I	Locate surface-breaking defects in all non-porous materials such as metals, plastics, or ceramics	01 Day
5555	Liquid Penetrant Testing Level II	Surface discontinuities are detected in one operation, regardless of orientation	02 Days
5580	Visual Inspection	Checks and Calibration of all equipment for the inspection purpose	01 Day
5810	Pressure Vessel Inspection - API 510	Improve management control of process unit operation, repair, and maintenance	03 Days
5840	Storage Tank Inspection - API 653	Provide a continued high level of safety through the use of inspectors specialized in above ground storage tanks	03 Days
5860	Piping Inspection - API 570	Safety and maintaining optimal performance through the use of inspectors specialised in process piping systems	03 Days
5880	Risk Based Inspection - API 580	Develop an understanding on risk management with inspection activities	03 Days

TRAINING COURSES

IIOT & ANALYTICS

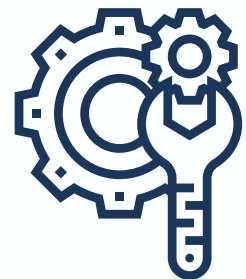
This training will provide great opportunities to understand the key concepts of Big Data Analytics, Internet of Things (IoT) and Data Sciences.



Training Code	Name of the Training Program	About Program	Training Duration
7020	Introduction to IoT,IOT Architecture	Introduction to the concept of IoT, IoT Eco system, IoT Stack and Protocols, IoT industry deployment examples	01 Day
7025	Introduction to Industrial Internet of Things	Increasing value with additional monitoring, analysis, and optimization, using IIoT sensors.	03 Days
7040	Industrial Sensors	To develop a surveillance robotic system able to detect leakages of fluids using vision system in the range of thermal sensors.	01 Day

OPERATION AND MAINTENANCE

Arrelic's Operation and maintenance training gives you a thorough understanding of your equipment and the systems they operate in.



Training Code	Name of the Training Program	About Program	Training Duration
6210	Advance Maintenance Strategy	Modern methods and techniques on the most critical aspects of maintenance management.	03 Days
6240	Maintenance Planning and Scheduling (Basic)	Understand common maintenance problems, delays, and inefficiencies	01 Day
6250	Maintenance Planning and Scheduling (Advance)	Achieve maximum maintenance effectiveness through proper planning and scheduling activities.	02 Days

BEST PRACTICES

Best practice is a strategy or method that has been, by and large acknowledged as better than any other choice since it is better than those accomplished by different means. Best practices are used to maintain quality as an alternative to mandatory legislated standards and can be based on self-assessment or benchmarking.



Training Code	Name of the Training Program	About Program	Training Duration
3010	Lean Manufacturing	Basics of reliability engineering, data analysis and modelling.	04 Days
3050	Value Stream Mapping (VSM)	The most effective mix of preventive, predictive and reactive maintenance considering criticality, availability and operating environment.	02 Days
3060	Single-Minute-Exchange-Dies (SMED)	Method of the lean production which reducing waste in a manufacturing process	01 Day
3070	Mistake Proofing (Poka-Yoke)	Used the ideas and methods in product and process design which can eliminate both human and mechanical errors	01 Day
3080	Kaizen Continuous Improvement	Eliminates scheduling complexities and reduces lead time and WIP inventory	01 Day
3110	Introduction to Theory of Constraints (TOC)	Helps a business to analyze its strengths and weaknesses with objectivity and then learn how to overcome the worst weaknesses.	01 Day
3210	Operational Excellence - Introduction	Modern methods and techniques on the most critical aspects of maintenance management	04 Days
3410	Total Productive Maintenance	Business and management, equipment reliability, manufacturing process reliability, association and leadership, and work administration	05 Days
3450	5S : Workplace Management Awareness	Systematic approach for productivity, quality and safety improvement in all types of business	01 Day
3520	Six Sigma Green Belt	It impacts on Operational benefits and Financial benefits	03 Days

Training Code	Name of the Training Program	About Program	Training Duration
3530	Six Sigma Yellow Belt	Defect reduction in a process or product Impact an understanding of six sigma to drive process and result oriented improvement culture	03 Days
3550	Six Sigma Black Belt	Enhanced professional profile to take on cross functional projects of strategic importance	05 Days
3810	Balanced Score Card	Reducing workplace accidents and injury	02 Days

INDUSTRIAL SAFETY

Industrial safety in the context of occupational safety and health refers to the management of all operations and events within an industry, for protecting its employees and assets by minimizing hazards, risks, accidents and near misses.



Training Code	Name of the Training Program	About Program	Training Duration
8010	Industrial Safety Services	Analysis of Hazard & Risk involved with plant & machinery	01 Day
8015	Accident Prevention & Protection	Reducing workplace accidents and injury	03 Days
8025	Behaviour Based Safety Management	Continually focusing people's attentions and actions on theirs, and others, daily safety behaviour	02 Days
8040	Safety Culture & Safety Management	Individual and group values, attitudes, perceptions, competencies, and patterns of behaviour that affect an organisation's health and safety management	03 Days

UNIVERSITY PROGRAM



Plant Maintenance & Diagnostic Engineer	11 Months]
PGD in Asset Reliability Management	[12/18 Months]
PGD in Digital Asset Management	[12/18 Months]



PGD in Engineering Management	[12/18 Months]
PGD in Predictive Maintenance	[12/18 Months]
MBA in Reliability Engineering & Asset Management	[24 Months]



TRANSFORMING ENGINEERING GRADUATES TO INDUSTRY EXPERTS



WHAT WE OFFER

- 11 Months full-time training program with Guaranteed Employment.
- A unique multi-disciplinary program transforming the engineering graduates to industry professionals.
- Focus on Plant Asset Management, Predictive Maintenance and Reliability Improvement.
- Trained by World Class Industry Experts.
- Cater to the requirements over 16 different types of industries.
- 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.

Participants of PMDE may get Career opportunity in any of the following roles

- Maintenance Manager
- Maintenance Team Leader
- Reliability Engineer
- Predictive Maintenance Analyst
- Maintenance and Reliability Engineer
- Planning Engineer
- Production Engineer
- Maintenance Engineer
- CBM Engineer
- Manufacturing Excellence Analyst
- PdM Analyst
- Reliability Consultant
- O&M Engineer

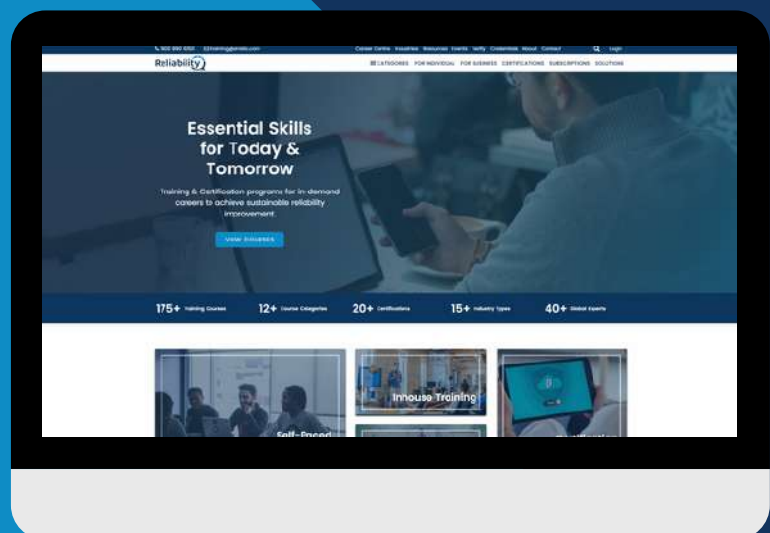


LMS – DIGITAL PLATFORM

AI BASED VIRTUAL E-LEARNING LMS PLATFORM FOR YOUR BUSINESS

RELIABILITYQ PLATFORM FROM ARRELIC

ReliabilityQ



TESTIMONIALS



AH

Azmir H.



Very useful step-to-step and structural training about RCM method to improve equipment reliability. Thank you.

CS

Chandra Shekhar S.



Very useful step-to-step and structural training about RCM method to improve equipment reliability. Thank you.

CS

Chanchal Sharma



The course was very inclusive, touching all the basic points in detail. Easy to understand methods. The 5 why analysis was a learning.

MD

Maria D.



Great material , lots of experience into the training. I love the idea of embedding the RCA tools into a process.

AY

Amine Y.



New method, concrete, very educational and easy to assimilate.

SA

Shehu A.



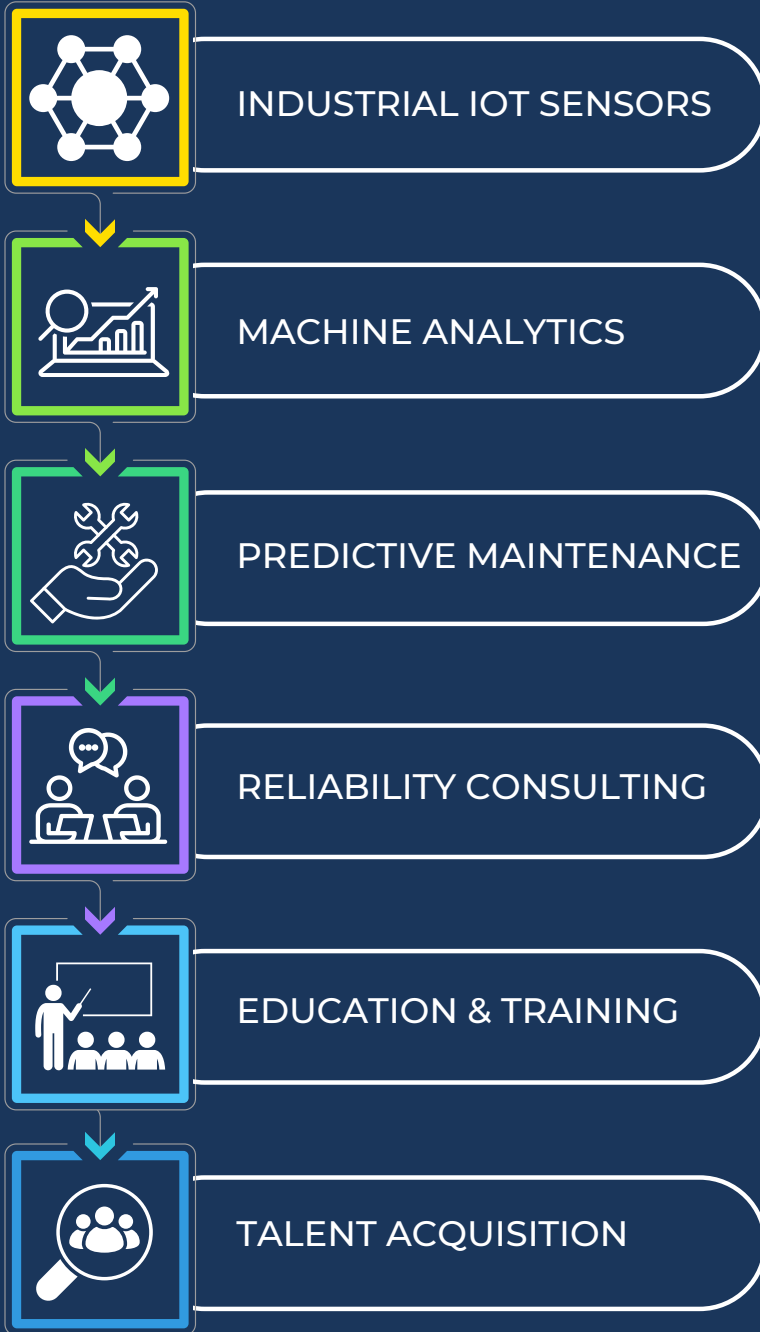
I really enjoyed this course, it opened my eyes and mind on what RCM is.

MR

Mulalo R.



This training was what I needed to strengthen the foundation of what my career is already heading. It helps with closing those small gaps in my understanding of RCM and Asset Management. The experience of the trainer is also very useful.



arrelic.com

info@arrelic.com / training@arrelic.com

1800 890 6250 / 1800 889 6350

LEI: 984500A013C40F436C26

306, Webel Tower - II, BN-9, Sector V, Salt Lake,
Bidhannagar, Kolkata, India - 700091

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