

**TRAINING PROGRAM ON**

# **Safety Management & Safety Culture**





# ABOUT ARRELIC TRAINING INSTITUTE

Arrelic Institute is focused 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 type of customized training programs in the field of Reliability Engineering, Asset Management, Best Practice, Operation & Maintenance, Predictive Maintenance, NDT, Predictive Analytics, Quality, Risk & Safety.

Arrelic Institute conducts public trainings and workshops in 38 locations across India and 10+ International locations. We are working for large corporate house from 15 different types of industries ranging from Airlines, Automobiles, Cement, Defence Manufacturing, FMCG, Glass, Marine, Metals, Mining, Oil & Gas, Power, Pulp & Paper, Facility Management and Fertilizer.

## ARRELIC INSTITUTE: AT A GLANCE



[www.arrelic.com/offerings/training-and-development](http://www.arrelic.com/offerings/training-and-development)

# ARRELIC AWARDS & RECOGNITIONS

**NASSCOM**<sup>®</sup>

**TOP5**

Won the Top 5 Startups in eastern India in Thieve 30 by NASSCOM



GLOBAL ENTREPRENEURSHIP SUMMIT  
INDIA 2017

Selected for GES – 2017, Hyderabad and showcased among top 100 Start-ups from India.



**SMART FIFTY**

50 Solutions to Transform India

**TOP50**

Emerged as one of the top 40 startups in #Smartfifty' – a search for solutions to transform India



Top 24 Start-ups selected over 1850 startups across India By CNBC.



Selected for NPC – Bangalore and NPC – Kolkata for Product showcase.



Product showcased in TIECON – 2017 and selected through Govt. Of Odisha.

**#startupindia**

Startup India Recognize



STARTUP ODISHA recognised.



**birac**  
Ignite Innovate Incubate

BIRAC finalist in SPARCH - 2017

**web summit**

LISBON, NOVEMBER 6-9, 2017

Selected for Web summit - Lisbon



**hello tomorrow**

Selected for Hello tomorrow, Paris Summit.



Selected and presented in 1000 open startups.



# ABOUT THE TRAINING COURSE

## PM OPTIMIZATION (PMO) - Basic

A safety management system is a planned process or procedure for carrying out a certain activity in the workplace. While intentions are good, in many cases the development of written health and safety programs has done little to contribute to fewer and less severe occupational accidents.

To develop a safety culture, organizations should integrate their written safety and health programs into daily operating procedures that influence employee behaviour.

The reason you should implement safety management systems is to ensure that when a task is carried out in your workplace, every precaution has been taken to reduce the likelihood of there being an incident that leaves someone injured or worse.





# LEARNING OBJECTIVES & KEY BENEFITS OF ATTENDING THE WORKSHOP

By attending this technical training on “PM Optimization (PMO) - Basic” delegates will be able learn and deliver the following things.

- ✓ Accurately assess risk and formulate an optimized maintenance strategy based on actual problem seen in the plant.
- ✓ Building an enterprise-level PM plan for various equipment classes.
- ✓ Determine how to apply the plans at the site- and equipment-specific levels.
- ✓ Develop an action plan that can be tracked to ensure on-time completion
- ✓ Create a team with the right resources, time and abilities for success--and ensure they understand the goal is efficiency and not position elimination.
- ✓ Reduce the machine downtime.
- ✓ Identify waste from every source and how it contributes to the overall inefficiency of many programs.
- ✓ Reducing the downtime as compared to unplanned repairs.
- ✓ Reducing the replacement costs.
- ✓ Preserving and restoring equipment reliability.
- ✓ Maintaining and prolonging the functional life of any equipment.
- ✓ Reduce the ambiguity of maintenance tasks.
- ✓ Allows planning to occur and eliminates complete shutdown of a process.

## WHO SHOULD ATTEND ?

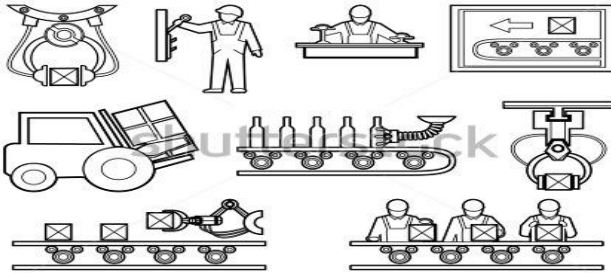
Successful maintenance planning and scheduling programs require the disciplined application of proven processes and interdepartmental partnerships. It is important for departments that are influenced and impacted by the processes to understand the processes. People in the following roles should participate in this training:

- ✓ Quality Managers
- ✓ Quality Engineers
- ✓ Lean practitioners
- ✓ Business Process Owners
- ✓ Process Improvement Managers
- ✓ System Implementers
- ✓ Management representatives
- ✓ System Coordinators



# INDUSTRIES THAT CONCERN ABOUT

## LOW PRODUCTIVITY



Conventional use of time-based approach for maintenance does not take into consideration the way assets are being utilized, their current condition and real world operating conditions.

## HIGH DOWNTIME



Failure to curb unplanned downtime and lack of control over value chain processes lead to high costs, inefficiencies and poor compliance. These severely impacts the profit and industrial growth.

## INADEQUATE ASSESS CONTROL



Industries lack the ability to interpret assets data and because of unavailability of proper predictive methods they are unable to predict equipment failures which leads to unplanned downtime.

## HIGH MAINTENANCE COST



Increased competition, pressure to grow revenue & profit, tighter regulations, scarcity of raw material, fluctuation demand and obsolete technologies have impacted the way industries are being operated.

# COURSE OUTLINE

## DAY - 1

### INTRODUCTION

- ✓ What is maintenance & why is it performed?
- ✓ Failure rate over time (Bath-tub curve)
- ✓ Evolution of the maintenance
- ✓ Reactive Maintenance
- ✓ Preventive and Predictive Maintenance
- ✓ Reliability Centered Maintenance (RCM)
- ✓ Benefits and risks of a PM Program

### HOW TO DEVELOP A GOOD PM SYSTEM?

- ✓ Fundamental Principles of development
- ✓ Approaches to develop & optimise PM
- ✓ Key stages in setting-up a PM program
- ✓ Determining Task Interval
- ✓ Managing Hidden Failures
- ✓ Impact of PM frequency on Reliability
- ✓ Packaging Maintenance Program

### COMPONENTS OF A WELL-ORGANIZED PM PROGRAM

- ✓ Essential Care (EC)
- ✓ Fixed Time Maintenance (FTM)
- ✓ Condition monitoring (CM)
- ✓ Documented processes and procedures
- ✓ Maintenance management system
- ✓ Tools facilities and equipment
- ✓ Spare parts inventory/forecast
- ✓ Training, awareness and competence
- ✓ FRACAS feedback programs

### REVIEW & Q/A

## DAY - 2

### RELIABILITY CENTERED MAINTENANCE (RCM)

- ✓ RCM Definitions and History
- ✓ RCM philosophy, principles & Benefits
- ✓ The 7 Basic Questions of RCM Analysis
- ✓ RCM review process (the 7 steps)
- ✓ RCM Decision logic phase
- ✓ Key points summary

### MANAGING HUMAN ERROR IN MAINTENANCE

- ✓ Elements for managing maintenance error
- ✓ Avoid Unnecessary Preventive Maintenance
- ✓ Maintenance Quality Management tools

### INSPECTION, TESTING AND DIAGNOSTICS

- ✓ Introduction to Risk Based Inspection
- ✓ Review of main Inspection and NDT methods

### COMBINING MAINTENANCE METHODS

- ✓ Selecting best mix maintenance methods
- ✓ Lean Maintenance
- ✓ Key points Summary

### POST ASSESSMENT

## PROGRAM SCHEDULE

09:00 -10:30	Morning Session 1	13:30 -15:00	Afternoon Session 1
10:30 -11:00	Refreshments & Networking Break	15:00 -15:30	Refreshments & Networking Break
11:00 -12:30	Morning Session 2	15:30 -17:00	Afternoon Session 2
12:30 -13:30	Lunch	17:00 -17:30	Day review & Q/A