

arrellic.com/career/pmde



**Arrellic®**  
Your Reliability Partner.



# PMD Engineer

PLANT MAINTENANCE & DIAGNOSTIC ENGINEER

arrellic.com

## OUR SERVICES



Asset Performance  
Management



IIoT Products and AI/ML  
Platform



Reliability Engineering



Industry 4.0 Digital  
Transformation



Predictive Maintenance



Remote Monitoring For Industrial  
Assets

## ABOUT

## OUR COMPANY

Arrelic is Winner of ET NOW – Leaders of Tomorrow session 8, Promising Startup of the year in 2019 by IPF through National Stock Exchange (NSE) in 2020, India's top 50 startups by Dept. of Science and Technology (DST) in 2018, Most Innovative Companies by NASSCOM.

We aim to help manufacturing companies to improve their overall plant productivity, reliability, reduce their operation and maintenance costs through Innovation, Industry 4.0, Predictive Maintenance, Machine Learning, Artificial Intelligence and Industrial Internet of Things (IIoT) technology with a vision "to transform the mode of manufacturing operation through connected technologies, reliable predictive maintenance, and machine analytics".

## OUR VALUE TO CLIENTS



Reduction in Maintenance  
Cost



Improve in Productivity &  
Availability



Reduction in Machine  
Breakdown



Reduction in Human  
Interference



# ABOUT

## ARRELIC TRAINING

Arrelic is focused to equip both industry professionals and college graduates with the skills and knowledge required for bridging the desired state of workforce which industry needs to compete globally. Arrelic Institute provides over 75 different types 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 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 TRAINING : AT A GLANCE

**175+**

Training  
Modules

**06+**

Industry  
Specific  
Domain

**40+**

Global Experts

**15+**

Global  
Locations

**75+**

E-Learning  
Training  
Modules

**05+**

University  
Program

**38+**

locations in  
India

**15+**

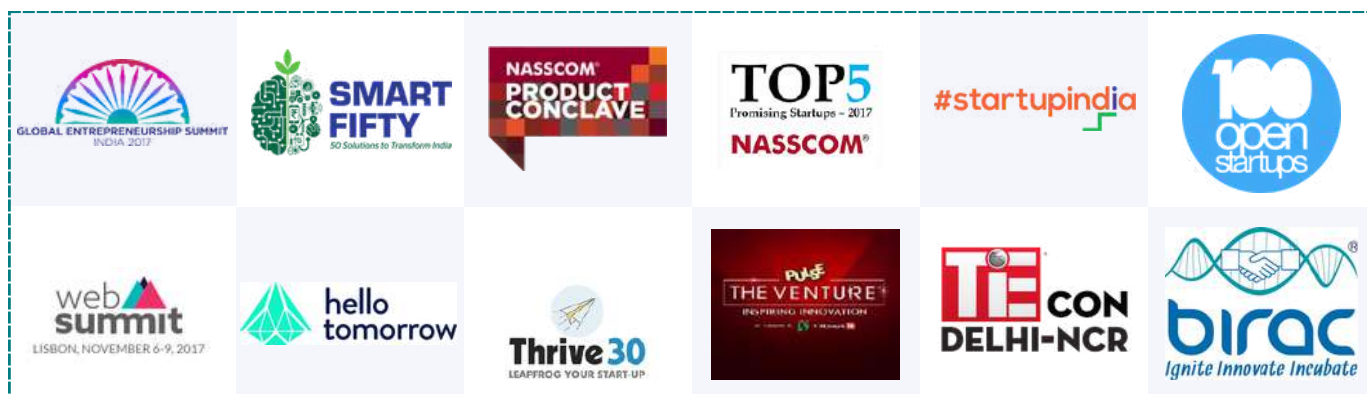
Types of  
Industries

**10+**

Associations



## AWARDS AND RECOGNITIONS



## ARRELIC MEDIA COVERAGE







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# PARTICIPANTS

## FROM DIFFERENT COUNTRIES



India



Saudi Arabia



USA



Australia



UAE



South Africa



Nigeria



Indonesia



Philippines



Oman



Canada



Qatar



Egypt



Singapore



Bahrain



United Kingdom



Botswana



Ghana



Pakistan



Poland



Turkey



Zambia



Zimbabwe



Angola



Congo



Finland



Greece



Kenya



Kuwait



Germany



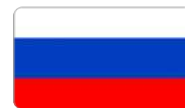
Malaysia



New Zealand



Peru



Russia



Thailand



Azerbaijan



Burkina Faso



Ivory Coast



Spain



Fiji



France



Honduras



Ireland



Italy



Jordan



Kyrgyzstan



Kazakhstan



Macedonia



Mauritius



Maldives



Mexico



Mozambique



Norway



Slovakia



Papua New Guinea



Romania



Rwanda



Sierra Leone



Somalia



Suriname



Tanzania



Uganda



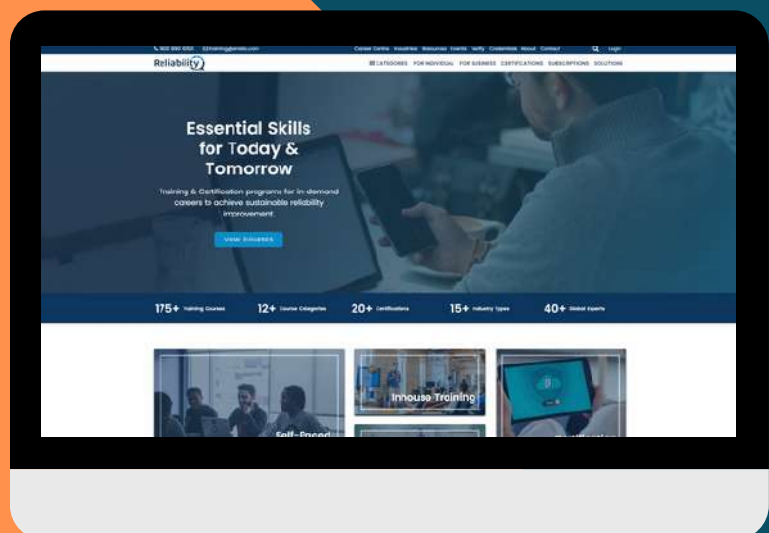
Vietnam

# LMS – DIGITAL PLATFORM

AI BASED VIRTUAL E-LEARNING  
LMS PLATFORM FOR YOUR BUSINESS

RELIABILITYQ PLATFORM FROM  
ARRELIC

ReliabilityQ



# Plant Maintenance & Diagnostic Engineer

## PMD Engineer

Be updated with latest Maintenance and Reliability technology

**Reliability**

**Asset Management**

**Best Practices**

**Predictive Maintenance**



USD 1,400,000,000,000.00



**\$1.4T\***

**LOSSES FROM MACHINE DOWNTIME**



*Technology is changing our approach to maintenance*

### Use of maintenance Strategy - Today

Reactive  
40%

Preventive  
30%

On Condition  
20%

Predictive  
10%

### Use of maintenance Strategy - Future

Reactive  
10%

Preventive  
20%

On Condition  
30%

Predictive  
40%

**02%**

**1 out of 1000 companies are in best in class & achieved 2% downtime**

**<0.1%**  
are in Best in Class

1.0

Paper - based systems and processes

2.0

Transactional systems, CMMS - EAM, time-based maintenance

3.0

Instrumentation of assets (RCM & analysis; condition and Usage - maintenance)

4.0

IIoT, AR/VR, Mobile, Predictive Analytics

	Laggard	Best in Class	Industry Average
OEE	75%	88%	81%
Downtime	18%	02%	11%

\* Source: Aberdeen Group \*\* Based on average manufacturing condition

## 15.9

**billion USD**

The global predictive maintenance market is projected to account for USD 15.932 billion by 2026 from USD 4.198 billion.

## 30.6

**% CAGR**

The growing need to reduce maintenance costs & downtime is driving the growth of the predictive maintenance market & growing at a CAGR of 30.6%

## 04.0

**billion USD**

India's Predictive Maintenance Market is expected to reach USD 4 Bn by 2026, at a CAGR of 25.2% during the forecast period.

“

**Greg Dierickse**

*Digital Experience - Products, OpenText*

Predictive maintenance has the potential to be a game changer for operations, helping dramatic improvement in OEE and the overall operational effectiveness. It helps in building predictive analysis into users' overall maintenance strategy, alongside reactive, condition-based, and overall preventative maintenance.”

“

**Kristin Gaffney**

*VP of Marketing, Dingo Software*

The predictive maintenance market is expected to grow in the coming 4-5 years. There has been not only an explosion of sensors and data, combined with affordable and automated analytics, but also the value proposition has shifted to how well an operation acts on information to optimize production, increase efficiency, and improve safety. In short, data—and the ability to organize, analyze, and capitalize on it—is rapidly becoming a competitive advantage.

“

**Patricio Saez**

*CEO, Sigma Industrial Precision*

Predictive maintenance is one of the most demanded applications for Industry 4.0 and we have seen that corporates are actively looking for it.

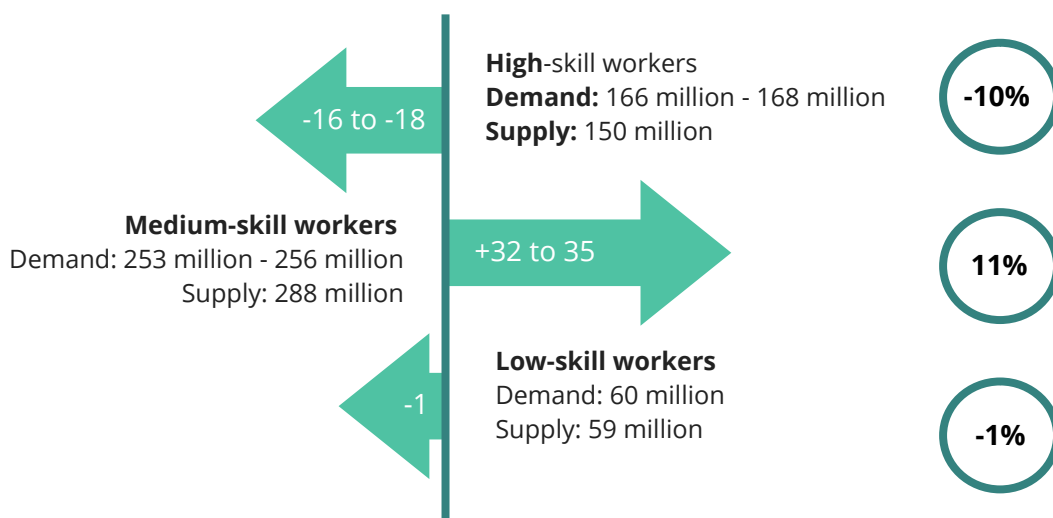
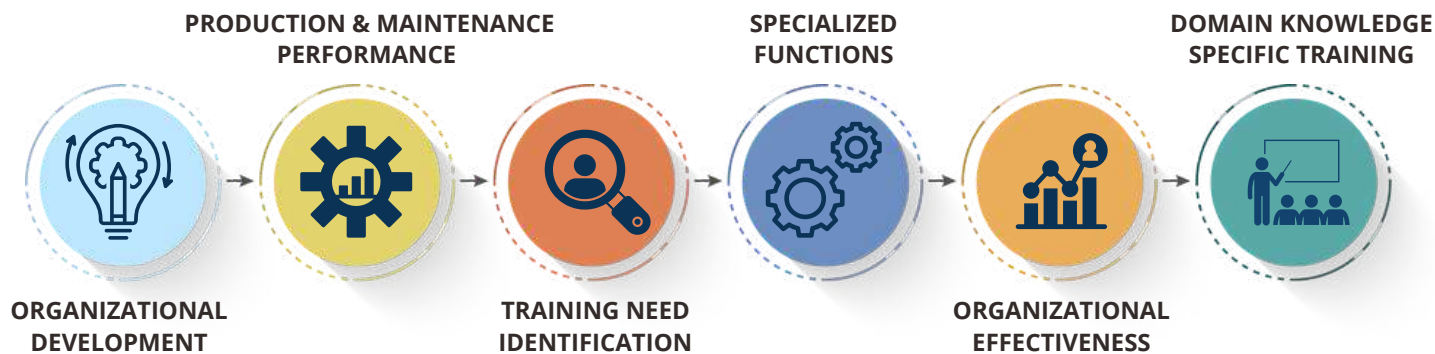
“

**Ashutosh Sharma**

*Product Manager, Ecolibrium Energy (P) Ltd.*

Predictive maintenance is less about technology and more about change management. Customers need to see this as an opportunity to change their operating models, which can deliver higher uptimes and reduce the cost of maintenance drastically.





\*This data, as researched by a well-known organization reveals that the need of skill-based employees will increase despite the automation. Employees should be more technically oriented rather than a specific orientation towards interpersonal skills.

## BARRIERS TO SKILLS BUILDING

- 1 → Undesired generalized statements (not specific) of training needs
- 2 → Need identification mostly done unqualified staff (Non-technical for Technical persons)
- 3 → Training based on limited sources of information
- 4 → Misinterpretation of MIS & Performance Indicators
- 5 → Trust on uninvestigated and unaudited data
- 6 → Training effectiveness KPIs not linked to individual's tasks and performance

- The Plant Maintenance & Diagnostic Engineer (PMDE) training program is a unique multidisciplinary program which transform the engineering graduates into industry professionals.
- The aim of the PMD Engineer programme is to enhance the skill and domain knowledge of engineering graduates and offers companies the technical and managerial expertise to thrive in the global marketplace .
- 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

## PROGRAM : OBJECTIVES

- To Familiarize engineers with the management of industrial organizations, the operation and maintenance of critical assets, the latest reliability and maintenance best practices.
- To fill the Gaps between Theoretical Learning (at Institute/ University) and Practical needs (in Industries)
- To enhance Employability of Mechanical / Electrical Engineers, so that they take up assigned tasks at ease immediately after landing in industry without any need of Induction Programs.
- To improve better Collaboration between Institutes and Industries.
- To build Confidence among engineers to take up industries as their most preferred choice of engineering profession

## INDUSTRY EXPECTATIONS





# DEVELOPING A INDUSTRIAL SYSTEM DRIVEN PROGRAM

PMDE training program is designed to be industrial system oriented rather than academic oriented.

Program Design	World Class Trainer	Best in class Training Materials	Assessment & Feedback
<ul style="list-style-type: none"> <li>Designed to meet the objectives with local needs.</li> <li>Practice Sessions &amp; experience sharing.</li> <li>Assessment &amp; Feedbacks after every sessions.</li> <li>Exciting learning environment.</li> <li>Diverse industry-focused.</li> </ul>	<ul style="list-style-type: none"> <li>Highly experienced faculty with 30+ years of Industry-Academic Experience</li> <li>Professionally Qualified (PhD &amp; Masters) Certified (CMRP, CRL, CRP, CRE) trainers</li> <li>Multi-industry &amp; Multi-specialization exposure</li> </ul>	<ul style="list-style-type: none"> <li>Training notes, an amalgamation of Theory &amp; Practical aspects Student-friendly, can be followed later in industry</li> <li>Available in soft &amp; hard copy Contents aligned to industry needs and sequentially arranged for future easy reference.</li> </ul>	<ul style="list-style-type: none"> <li>Session-wise assessment to have regular feedbacks on inputs.</li> <li>Evaluation modes in presentation, MCQs, role plays, interview/ discussion sessions.</li> <li>Assessment for Certification Feedbacks for back-up for improvement in next programs/ sessions</li> </ul>

## CAREER GROWTH

The graduates who enroll into this programme will occupy senior maintenance related engineering positions in top organization.

**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



**11 Months** full-time residential training program with **guaranteed employment.**



A unique **multi-disciplinary** program transforming the engineering graduates to industry professionals.



Cater to the requirements over **16 different types of industries.**



Trained by **World Class Industry Experts.**



Focus on **Plant Asset Management, Predictive Maintenance** and **Reliability Improvement.**



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



### DEEPAK KUMAR SAHOO

MS (Reliability Engineering), PG in Engineering Management, B. Tech (Mech) 13+ Experience in Petrochemicals, Aerospace, Consulting in the field of Machinery Diagnostics, Reliability Management.





**Improved Employability  
of Mechanical &  
Electrical Engineers**



**Exposure to industrial  
organizations, modern  
management structure, the  
operation and maintenance of  
critical assets, the latest reliability  
and maintenance practices.**



**Bridge the gaps between  
Theoretical Learning (at  
Institute/ University) and  
Practical needs (in  
Industry)**



**Boost confidence to  
take up Industry as the  
most preferred  
engineering profession**



**Cater to the  
requirements over 16  
different types of  
industries**



**Focus on Plant Asset  
Management, Predictive  
Maintenance and Reliability  
Improvement**



**Globally recognized  
Certification, a Stamp of  
Professionalism and Trust,  
approved by industry**

## FOCUS INDUSTRY



**Aerospace &  
Defence**



**Automobiles**



**Cement**



**Chemical**



**Facility Management**



**FMCG**



**Glass  
Manufacturing**



**Metal & Mining**



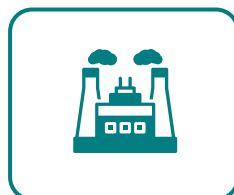
**Msme & Small  
Business**



**Oil & Gas**



**Pharmaceuticals**



**Power**



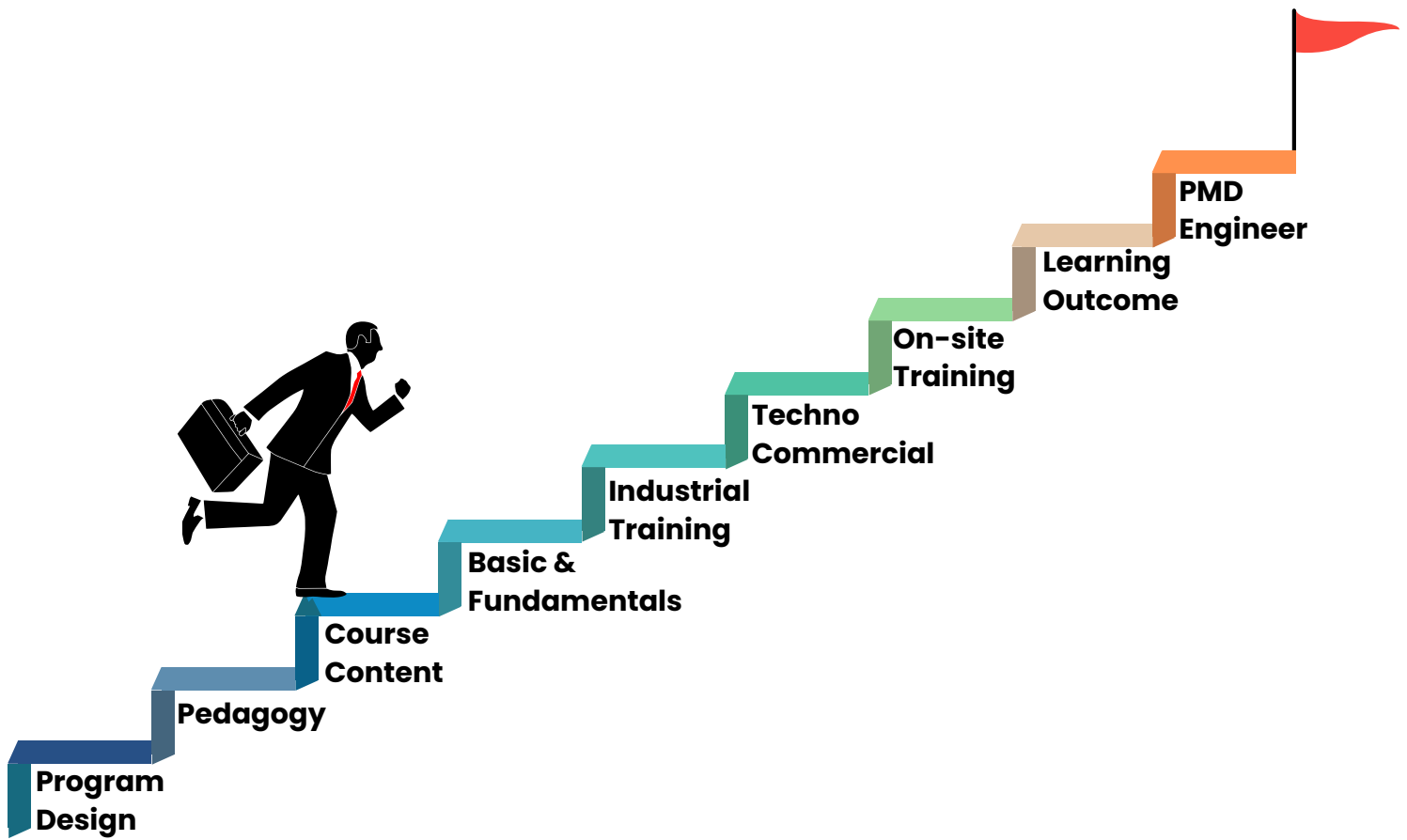
**Public Sector**



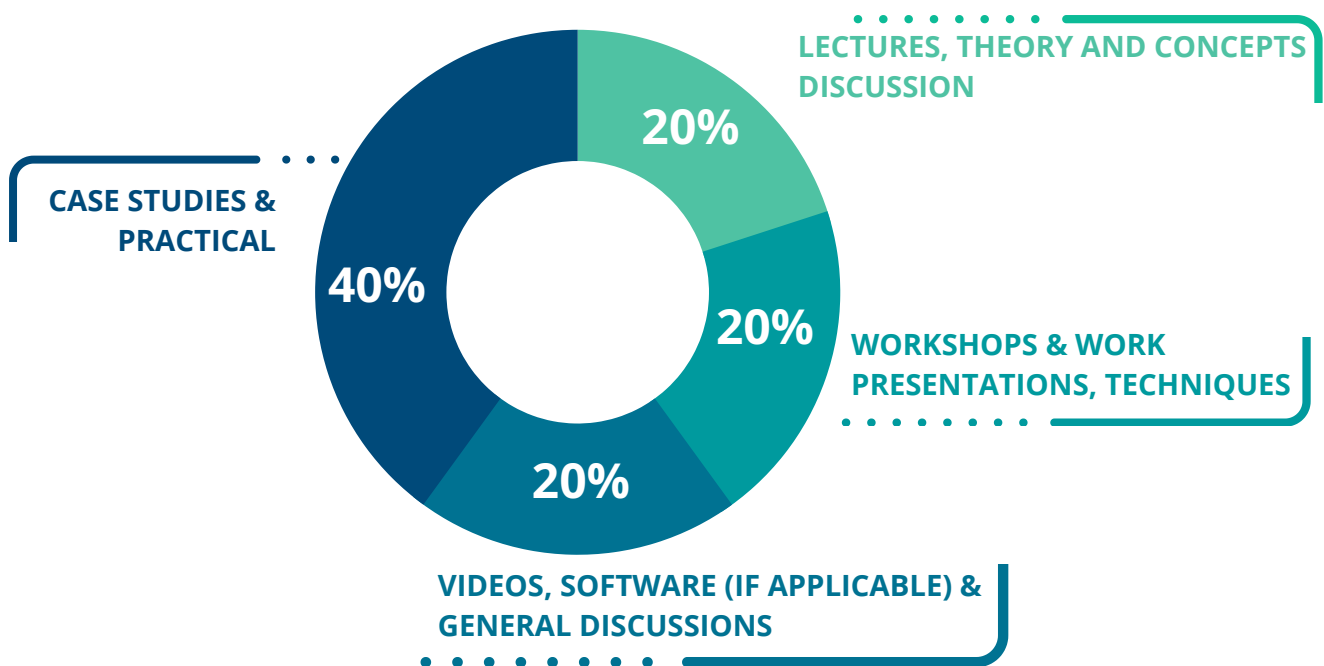
**Pulp & Paper**



**Transport &  
Logistic**



## TRAINING METHODOLOGIES





Module - 01	Course Title	Code	Credits
	Plant Equipments Basics and Fundamentals	AR-PEF	30
	Maintenance Management, Systems & CMMS	AR-RMM	20
	Failure Mechanism, Analysis Tools & Techniques	AR-RFA	30
	Workforce Management	AR-WFM	20
Module - 02	Machinery Diagnostics / Condition Monitoring	AR-RCBM	30
	Vibration Monitoring & Analysis	AR-RVM	10
	Dynamic Balancing & Alignment	AR-RBA	10
	IR-Thermography & MCSA	AR-IRT	10
	Motor Current Signature Analysis	AR-MCA	10
	Lubricant & Lubricant Analysis	AR-RLA	10
	Non-Destructive Testing	AR-RNDT	10
	Other PdM Tools	AR-PDT	10
Module - 03	Reliability Engineering Principles & Management	AR-RRE	20
	Design for Reliability & Life Cycle Asset Management	AR-RDR	15
	Reliability Centred Maintenance & Inspection Management	AR-RRI	15
	Reliability Analysis & Testing	AR-RAT	10
	Asset Life Assessment	AR-RALA	15
	Maintenance and Reliability Tools	AR-MRT	15
	Work Process Management	AR-WPM	20
Module - 04	Inventory Management	AR-INM	20
	Turnaround & Shutdown Management	AR-RTSM	20
	Total Productive Maintenance	AR-RTPM	15
	Lean Manufacturing & Six Sigma	AR-LSS	15
	Business Analytics	AR-BMA	10
	Asset Performance Management	AR-APM	10
	Asset Management, Audits & ISO 55000	AR-RAM	10
Module - 05	Techno Commercial	AR-SDIP	100
	Site Deployment		
	Client Feedback		

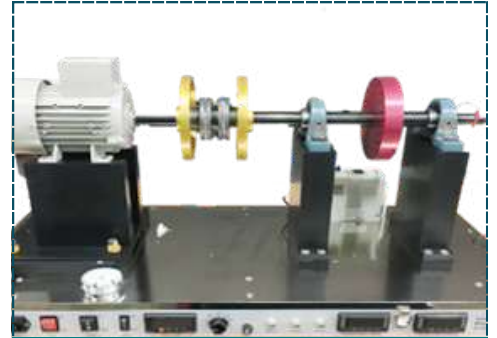


# ARRELIC LEARNING CENTER (ALC)

## PMDE TRAINING INFRASTRUCTURE & FACILITIES



**INSTRUMENTS**



**SIMULATION & MCSA**



**INDUSTRY 4.0 - AI & ML**



**FAB LAB**



**OIL LAB**



**SMART CLASS ROOM**

**Arrelic Learning center** has facilities such as Library with 6000 plus books on related topics, 100+ journals, and magazines along with 300 e-journals, fully equipped state-of-the-art gymnasium, open yoga center, outdoor games - Volleyball, basketball, badminton court along with a field for playing cricket, indoor games - TT (table tennis), chess, carrom etc. For more details on facilities visit <https://www.arrelic.com/career/pmde>

## ONE PROGRAM WITH MULTIPLE CERTIFICATES

- **Plant Maintenance & Diagnostic Engineer (PMDE)** certificate with badge verified from **ReliabilityQ** will be awarded from **Arrelic Professional Development Institute (APDI)**. Verify your certificate – [reliabilityq.com/verify](https://reliabilityq.com/verify)



ReliabilityQ Career Center is filled with hundreds of opportunities

ReliabilityQ

CAREER  
CENTRE

INDUSTRY  
CONNECT

Job Assistance through Arrelic partnered organizations across 62+ countries.

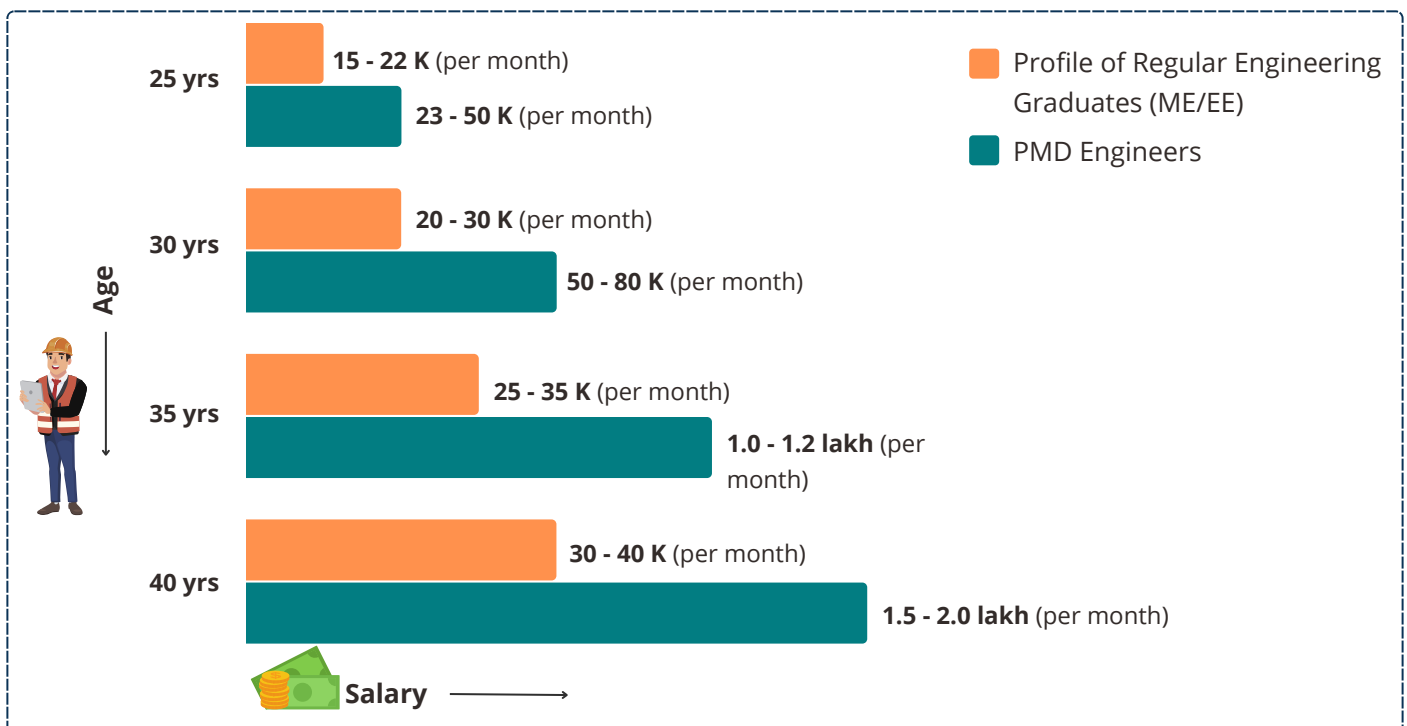
**ENROLL IN PMDE PROGRAM**

**Invest > Learn > Focus > Exposure**

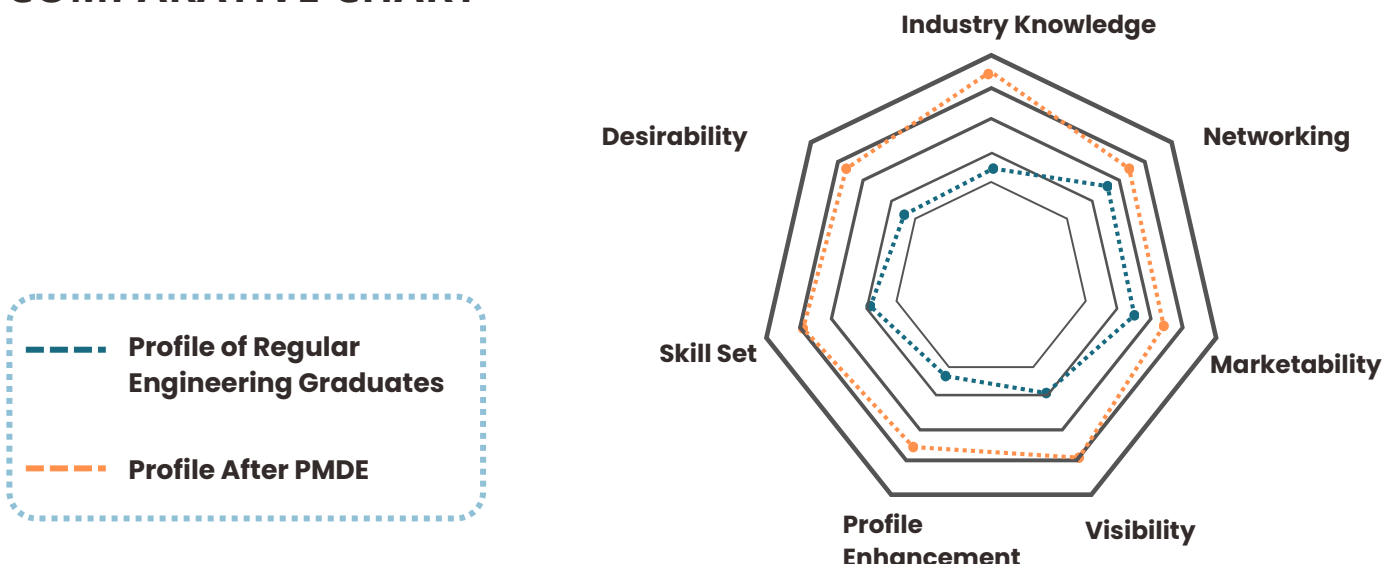
**ELSE**

**YOU WILL REGRET IN 40's**

### COMPARATIVE CHART FOR RELIABILITY ENGINEER SALARY IN INDIA

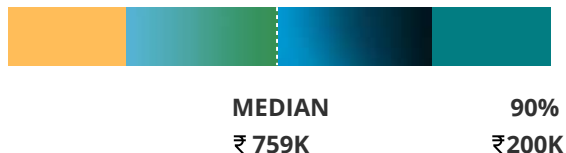


### COMPARATIVE CHART

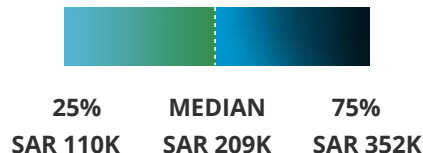




### RELIABILITY ENGINEER [ 2 - 6 YRS. EXPERIENCE ]



The average salary for a Reliability Engineer is INR 7,58,534  
In India = INR 7,58,534

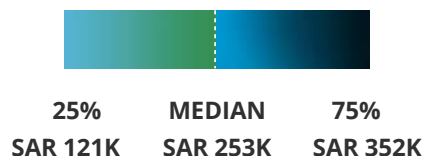


The average salary for a Reliability Engineer is SAR 209,000  
In Middle East = INR 45,38,728

### RCM ENGINEER [ 3 - 8 YRS. EXPERIENCE ]



The average salary for a RCM Engineer is INR 7,81,000  
In India = INR 7,81,000

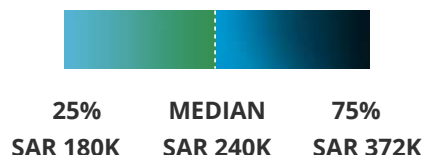


The average salary for a RCM Engineer is SAR 2,53,000  
In Middle East = INR 54,94,250

### ASSET PERFORMANCE MANAGEMENT [ 5 - 10 YRS. EXPERIENCE ]



The average salary for a APM Engineer is INR 9,07,594  
In India = INR 9,07,594

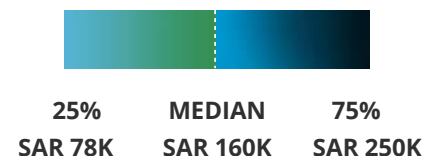


The average salary for a apm Engineer is SAR 2,40,000  
In Middle East = INR 52,11,940

### PREDICTIVE MAINTENANCE [ 3 - 8 YRS. EXPERIENCE ]



The average salary for PdM Engineer / Analyst is INR 4,50,000  
In India = INR 4,50,000



The average salary for PdM Engineer / Analyst is SAR 1,60,000  
In Middle East = INR 34,74,624

# PMDE PROGRAM FEE

## RESIDENTIAL TRAINING CUM EMPLOYMENT

**INR  
33,000**



### BENEFITS

- Best in class program for Mechanical and Electrical engineering passout graduates.
- 11 Months full time program with 750+ hours of hands hold training.
- Trained by world class industry experts.
- Unlimited access to recorded training videos through LMS platform.
- Plant Maintenance & Diagnostic Engineer certificate from APDI and Verified badge from ReliabilityQ.
- Professional resume & linkedIn profile building service.

### SELF SPONSORED - INDIAN STUDENTS

**Registration, LMS Access, study Materials & Medical Insurance**

**Accommodation & Fooding (OPTIONAL)**

**PMDE - Training Fees Residential Program**

#### Pre Training

INR 33,000

-

-

#### During Training

-

INR 66,000  
(for 11 months)

-

#### Post Training

**INR 2,88,000**

OR

**INR 8,000 \* 36**

(36 months deduct from salary post-employment)

- Shared Accommodations & Standard Food Menu - Breakfast, Lunch, Evening Snack & Dinner are available at ₹ 66,000 /- for 11 months - Need to pay by the participant in 2 installments. Subjected to room availability.
- Arrelic will provide an interest-free educational loan of ₹ 2,88,000/- to candidates who opt for a 3 years lock-in period. During the contractual period, the candidate can't terminate his employment or take up assignments with other companies. Once the candidate has been employed, ₹ 8000/- would be deducted each month from the salary towards loan repayment. The loan facility is available to the first 12 candidates only.
- Also, you can enroll in the PMDE program without a lock-in period by paying the complete course fee ₹ 2,95,000/- which is inclusive of accommodation and fooding (₹66,000). Students can avail loan from Leading Banks / NBFCs.

**On successful completion of the course, participants will be absorbed at Arrelic or it's partner companies as PMD Engineer with starting remuneration of ₹ 3.60 - 6.00 lakh per annum in India or ₹ 9.00 - 15.00 lakh per annum in the middle east locations. Salary will be revised every year depending upon the PMD Engineer performance.**

### COMPANY SPONSORED - RESIDENTIAL

#### ARRELIC CONTACTS



DEEPAK KUMAR SAHOO  
 deepak@arrelic.com  
 training@arrelic.com  
 pmde@arrelic.com  
 +91 - 993 726 5750  
 +1 - 408 709 4250

USD 5,999 : For International Participants.  
 USD 4,999 : For International Participants- African continent.  
 INR 3,95,000 + GST : Companies having turnover (₹ 1000 Cr. +).

### EX-DEFENCE PROFFESIONAL - RESIDENTIAL

**INR 2,95,000 : EX - Navy, Air Force, Army - Infantry ( Age below 38)**

On successful completion of the course, participants will be absorbed at Arrelic or it's partner companies as PMD Officer with starting remuneration of ₹ 3.6 - 6.0 lakh per annum in India or ₹ 9.00 - 15.00 lakh per annum in the middle east locations.

### ONLINE, E-LEARNING & VIRTUAL MODE

USD 2,999 : Company Sponsored  
 USD 2,499 : Self-Sponsored  
 USD 1,249 : PMDE Global Ambassador

INR 1,75,000 + GST : Companies having turnover (₹ 1000 Cr. +).  
 INR 1,50,000 + GST : Indian MSME Companies  
 INR 1,25,000 + GST : Indian Student Self Sponsored

#### BANK TRANSFER

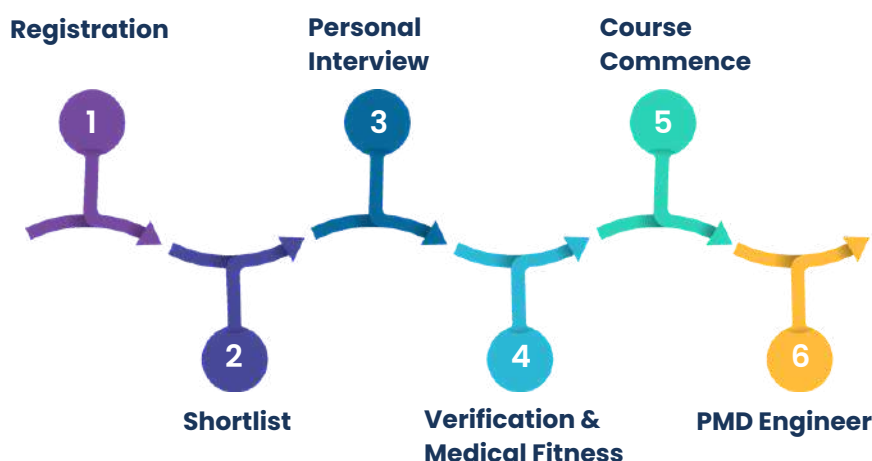
Bank Name :	ARRELIC RELIABILITY PRIVATE LIMITED
Account Number :	031 - 040835 - 001
Type :	CURRENT ACCOUNT
Bank :	HSBC
Branch :	31 BBD Bagh, Dalhousie Square, Kolkata, India - 700001
IFSC Code :	HSBC0700004
Bank Code/Swift Code :	HSBCINBB
MICR :	HSBC0700004

# PROGRAM DETAILS - 2ND BATCH

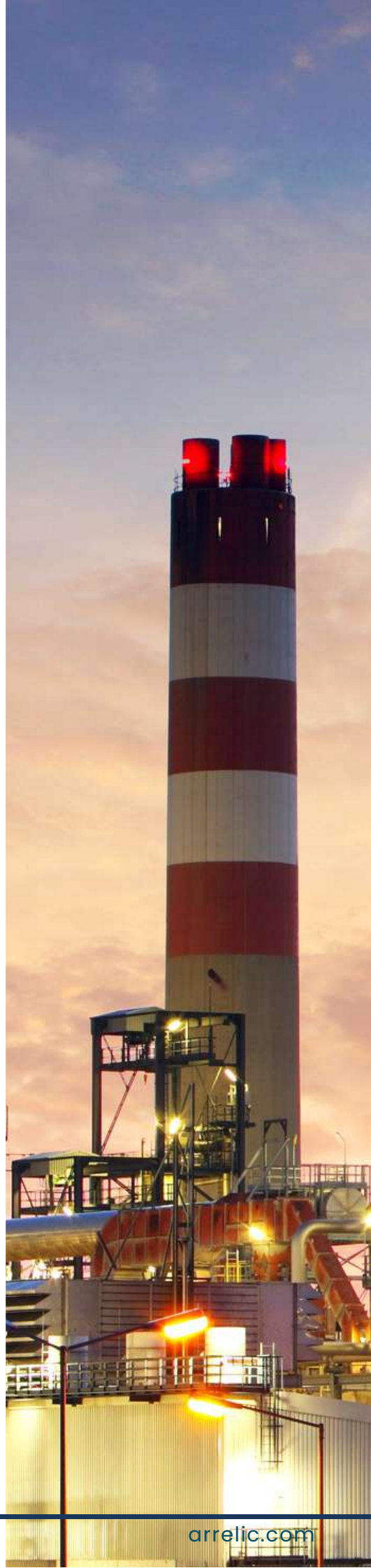
Duration	11 Months
Training Fees	INR 33,000/-Self Sponsored Indian Students
Eligibility	B.E. / B.Tech in Mechanical / Electrical / Instrumentation / EEE / Metallurgy / Industrial / Power Plant Engineer
Batch Size	24 Numbers
Location	Arrelic Learning Center, Rourkela - Odisha
Finance	100% Funding from Leading Banks / NBFC
Last Date to Apply	15th April 2023 - For Residential Program 31st May 2023 - For Online & E-Learning
Batch Commence	20th April 2023 - For Residential Program 10th Jun 2023 - For Online & E-Learning
For Registration	<b><a href="https://arrelic.com/career/pmde">arrelic.com/career/pmde</a></b>

On successful completion of the course, participants will be absorbed at Arrelic or it's partner companies as PMD Engineer with starting remuneration of ₹ 3.60 - 6.00 lakh per annum in India or ₹ 9.00 - 15.00 lakh per annum in the middle east locations (Saudi Arabia & Bahrain).

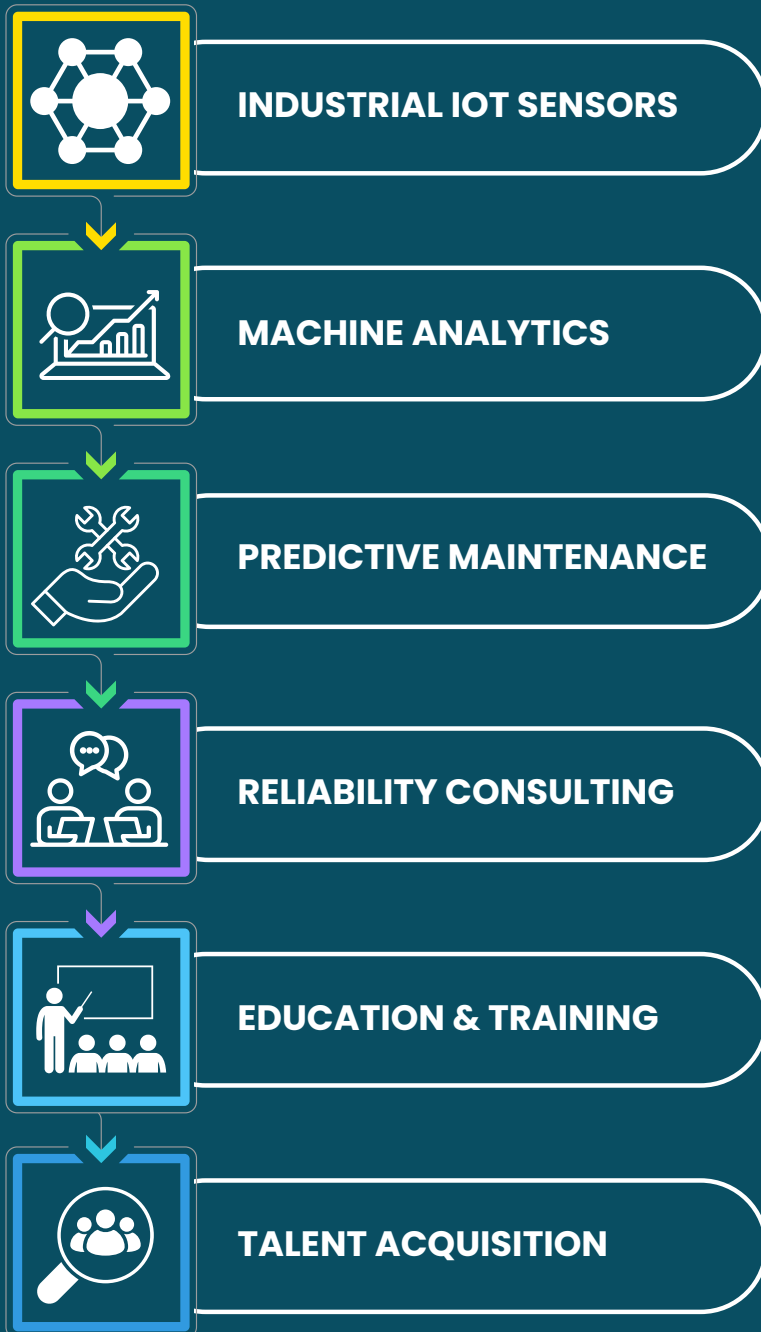
## SELECTION PROCESS



- All seats are first come first serve basis.
- PMDE program is designed for 2018 to 2023 year pass-out students.
- 03+ years' relevant work experience will be given preference.
- The shortlisted candidate will receive the notification through email.
- Standard PMDE training terms & conditions apply.
- Arrelic reserves all rights for the final selection of candidates.







arrelic.com  
info@arrelic.com / training@arrelic.com  
1800 890 6250 / 1800 889 6350  
LEI: 984500A013C40F436C26

**ARRELIC RELIABILITY PRIVATE LIMITED | CIN - U74999OR2016PTC025699**

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

**ARRELIC GLOBAL CONSULTANCY W.L.L. | CR No. 161279 - 1**

212, 2nd Floor, BNH Building 2491, Road 2832,  
Block 428, Seef District, Manama - Bahrain



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