

# € TRAINING

Reliability, Availability, and Maintainability  
(RAM)



3 - 7 June 2024  
Casablanca (Morocco)  
New Hotel



# Reliability, Availability, and Maintainability (RAM)

REF: O1705 DATE: 3 - 7 June 2024 Venue: Casablanca (Morocco) - New Hotel Fee: 4675 Euro

## Introduction:

Reliability, Availability and Maintainability RAM are system design attributes that have significant impacts on the sustainment or total Life Cycle Costs LCC of a developed system. Additionally, the RAM attributes impact the ability to perform the intended mission and affect overall mission success.

## Course Objectives

At the end of the course participants will be able to:

- Gain knowledge of the reliability in RAM
- Understand reliability and maintainability
- Understand RAMS Reliability, Availability maintainability Safety
- Know why Reliability, Availability, and maintainability is important

## Targeted Audience:

- Systems engineering
- Project Engineers
- Technical Assistants
- Maintenance Engineer/Coordinators

## Course Outlines:

### Unit 1:

- Re?nes the downtime management method
- Recognizes any performance shortfalls
- Builds successful maintenance plans
- Increases efficiency

### Unit 2:

- Overview of RAM and its maintenance.

- Maintainability and Availability Principles.
- Reliability Mathematics and Failure Physics.
- Exponential Distribution and Reliability Models.
- Learn the importance and implementation of Failure-Rate Data.

### **Unit 3:**

- Applying Probability Density Functions Appropriately.
- Testing Tools for Reliability to Efficiently Apply test methods.
- Software Life Cycle Model and Testing. Software Testing and Limitations.
- Extensive Study of Extensions and Applications of Safe Introduction of Software Using Scale Up.
- Petrochemical and process industries and become knowledgeable in inspection plans

### **Unit 4:**

- Factors Affecting Software Reliability Operations.
- Overview of Software Reliability Models. Data Analysis for Models.
- Software Reliability Prediction Models.
- Software Reliability Estimation and Accelerated Life Testing Models.

### **Unit 5:**

- Software Reliability Metrics and its Application.
- Software Fault Trees. Application and Importance of Software FMEAs.
- System Reliability Software Redundancy.
- Techniques to Improve Software Reliability.

### **Unit 6:**

- Managing Software Reliability.
- Numerical Reliability Framework.



- Reliability Management, Additional Metrics Implications.
- Warranty and Maintenance.
- Preventive Maintenance Models, Effective Maintenance, and Optimum Policy.