



Logistics Management Associates
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www.log-mgmt.com

A Common Sense Approach
Reliability, Availability and Maintainability
A Three-day Course

This course presents both an overview and in-depth analysis of how to achieve System Availability by design, and the corresponding Reliability and Maintainability driven parameters. Subjects covered include: Collaborative RAM Requirements, RAM Mission Profiles, RAM Allocations and Predictions, Hardware/Software Design Considerations, Failure Modes, Effects, and Criticality Analysis, Electrical/Mechanical/ Software Stress & Derating Analysis, Cost Savings and Program Management and Life Cycle RAM Tasks. Specific topic added to this course: Predictive Maintenance, how it is implemented, why it might be beneficial, and the effect of Predictive Maintenance on Supply Chain Management.

Course Details:

Virtual Presentation: using Microsoft Teams

Course Date: 5-7 November 2024

Course Time: 0900-1630 EDT (NY/DC)

Course Fee: US\$ 995

Register at: www.log-mgmt.com

Information: conference@log-mgmt.com

Course Content:

The Beginning Understandings

What is Availability?

The History of Availability

Current Problems

The Value of Availability

Complexity benefits and problems

What do the Terms Really Mean?

Difference between Inherent and Induced

Safety is Paramount

Creating a Visual Understanding of the Complete Process



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Collaborative RAM Requirements

- Developing a Functional Block Diagram
- Mapping from Functional to Physical
- Development of Reliability Requirements
- Development of Maintainability Requirements
- Development of Testability Requirements
- Development of Availability Requirements
- Mission Profiles and Effect on RAM

Developing Understandable Goals for Success

- Establishing the Reliability Window
- Maintainability as the Reliability Partner
- Testability at All Levels
- The Need for Availability

RAM Predictions

- Reliability Predictions
- Maintainability Predictions
- Testability Predictions
- Availability Predictions

Hardware and Software Design Considerations

- Similarity Benefits
- Standardization and Commonality
- Functional Identification and Partitioning
- Technology Improvement Benefits and Penalties

Failure Modes Effects Criticality Analysis

- The FMECA Concept
- How to perform the Design FMECA Steps
- Using Process FMECA
- Is Criticality Really Critical
- Safety as a Show Stopper

Fault Tree Analysis

- Mapping the FMECA from Effect to Cause
- Why the FTA is so Beneficial
- Using a Logical approach to Functionality



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Stress and Derating Analysis

- Benefits of Proper Derating
- Stresses vs. Equipment Availability
- Electrical Derating Considerations
- Mechanical Derating Considerations

Reliability Centered Maintenance

- Selecting the Right Approach
- Following the RCM Decision Tree
- Scheduled Maintenance
- Condition-based Maintenance (CBM)
- Condition-based Maintenance Plus (CBM+)

In-Service Operations and Support

- Managing to Availability
- Trend Analysis techniques
- Making Adjustments
- Where Expectations Meet Reality

Predictive Maintenance

- Extending System Life with Availability Improvement
- Understanding the Implications of PdM
- Using the Internet of Things (IoT)
- Implementing PdM
- Combining Preventive and Predictive Maintenance

PdM and the Supply Chain

- What has to Change?
- Known No Fault Found (KNFF) Implications
- Adapting Sparing Levels
- Shifting Depot Maintenance Workload
- Can you Afford the Cost?

Putting the Concepts All Together

- Key Management Indicators
- Being Proactive in a Reactive World

Students participate in a 16-part Practical Exercise which demonstrates the application of each course topic on a system. A computer/laptop with Microsoft Excel is required to complete these exercises.



Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

- Common Sense Reliability Availability Maintainability - \$995
8-10 April 2025
 - Early Bird Discount 10% (Register before 22 February 2025)
 - CLEP/SOLE Active Member Discount 10%

Payment Method:

- Visa/MC/Amex
 - Name on Card _____
 - Card Number _____
 - Expires _____
 - CVC _____
 - Billing ZIP/Post Code _____
- PayPal
 - Send invoice to (email): _____
- SF182 (attached)

Send completed registration form to:

Email: conference@log-mgmt.com

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