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.

LOGISTICS MANAGEMENT ASSOCIATES

Registration Form

Name _____

Email _____

Company/Organization _____

Contact Telephone _____

Please register me for:

☐ Common Sense Reliability Availability Maintainability - $995
5-7 November 2024

☐ Early Bird Discount 10% (Register before 15 October 2024)

☐ 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:

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