



BII WORLD
Engage • Enlighten • Empower



Masterclass Maintenance & Reliability Practitioners



In Person Training



Assessments



3 Days of Live Interactive Sessions



Learning Kit

30 April - 02 May 2025

Toronto, Ontario, Canada

www.biiworld.com



Instructor:
Ramesh Gulati

60+ Years Overall Experience

**He is known as the Reliability Sherpa in Maintenance &
Reliability**

RAMESH GULATI is a globally recognized leader in the field of asset management, reliability and maintenance. He is a change agent author, instructor and known as the Reliability Sherpa.

Ramesh has worked for nearly 60 years in various organizations, including ReliabilityX, Jacobs-ATA/ Sverdrup, Carrier Air Conditioning; True Temper Corporation; Bethlehem Steel; and the HEC-Foundry Forge plant in several areas.

The author of several books, including “Maintenance & Reliability Best Practices” which is one of the best sellers in the world and now in its 3rd edition, “10 Rights of Asset Management”, “Uptime Elements DICTIONARY for Reliability Leaders & Asset Managers”, and “MRBP Workbook”, etc.

Ramesh has been actively involved in professional societies like SMRP, IISE, ASQ, Reliabilityweb, etc., for over 40 years.

He teaches the Reliability Maintenance best practices course at several universities such as Mississippi State, The University of Tennessee, and Wisconsin. He also participates in the ISO technical committee for Asset Management TC251 as a representative of USA TAG for the development and update of ISO 55000 - Asset Management Standard.



Course Description



This 3-Day in-person workshop would help to understand the fundamentals of maintenance, reliability, and asset management principles. The knowledge you gain in this workshop will help you effectively implement best practices (BP) to make a difference at your workplace. In addition, this workshop will review the body of knowledge (BoK) of maintenance, reliability & asset management-related certification, and guide to be successful in the CMRP exam.

Certification



The Certified Maintenance & Reliability Professional (CMRP) program is the #1 leading credentialing program for certifying the knowledge, skills, and abilities of maintenance and reliability professionals worldwide. The CMRP is accredited by the American National Standards Institute (ANSI), which follows globally recognized ISO standards for its accreditation and processes. Earning this certification means earning a coveted credential recognized across all industries internationally.

To register for CMRP exam, click on the below link and follow the on screen instructions.

<https://smrp.org/CMRP-Registration>

To find the nearest authorised testing centers, click on the below link

<https://smrp.org/Certification/Test-Center-Search>

Learning Objectives



- The maintenance, reliability, and asset management-related terminology.
- The maintenance reliability & asset management-related best practices
- The role of leadership and the importance of change management in implementing successful reliability programs, including culture
- Planning and scheduling process, including inventory/spares management.
- The role of operations in implementing a reliability program.
- Measuring and calculating the reliability – RAM parameters
- Supporting asset design from RAMS2O perspective
- Measuring performance and designing the right metrics system
- Managing the workforce effectively to improve productivity.
- Problem-solving and improvement tools
- Standards, standardization, and certifications
- Current trends and practices, including Industry 4.0/Digitalization.
- Body of Knowledge (BoK) of key certification, i.e., SMRP/CMRP, CRL, etc., and test-taking tips
- RAMS2O = Reliability, Availability, Maintainability, Safety/Sustainability, and Operability



Who Should Attend?

- Maintenance Managers
- Maintenance Superintendents
- Maintenance Engineers
- Maintenance Planners
- Reliability Engineers
- Plant Managers
- Engineering Managers
- Manufacturing Managers
- Production Managers
- Operations Managers
- Asset Managers

Training Methodology



Instructor-led classroom lectures, real-life exercises, case studies reviews, role-playing, scenarios, and group discussions using an integrated approach.

24 hours of course time (inclusive of breaks)



Day 1

🕒 09:00

Introduction & Safety Moment

- Introduction of Speaker
- Expectations
- Introductions and course objectives & Course Overview

10:30 - 10:45 Coffee Break 🕒 15min

Introducing Best Practices

- What and why best practices
- Safety, reliability, and productivity relationships
- Value and examples of benchmarks
- Basic test on M&R- AM knowledge
- Self- Assessment questions

Culture and Leadership

- Defining Leadership
- Strategic framework- vision, mission, and goals
- Defining culture – reliability culture
- Creating/sustaining a culture of excellence/ reliability
- Importance of Leadership in Building Culture
- Self- Assessment questions

13:00 - 14:00 Lunch 🕒 60min

Understanding Maintenance

- Defining maintenance
- Maintenance classifications/practices
- CMMS/EAM
- Maintenance assessment
- Measures of performance
- Self- Assessment questions

Work Management

- Workflow and roles
- Work classification and prioritization
- Planning Process
- Scheduling process
- Turnaround and shutdowns
- Measures of performance
- Self- Assessment questions

15:30 - 15:45 Coffee Break 🕒 15min

Materials, Parts, and Inventory Management

- Why inventory management
- Types of inventories
- Physical layout and storage equipment
- Optimizing tools and techniques
- Measures of performance
- Self- Assessment questions

🕒 17:00

Close of the Day 1



Day 2

09:00

Measuring and Designing for R&M

- What and why reliability
- Measuring/calculating reliability and other terms.
- Designing for Reliability - RAMS2O - DIO-PF curve
- Measures of performance
- Self- Assessment questions

10:30 - 10:45 Coffee Break

⌚ 15min

Operations Role – Operator Driven Reliability

- The role of operations/operators
- Total Productive Maintenance (TPM)
- Workplace organization – 5 S
- Overall Equipment Effectiveness (OEE)
- Measures of Performance/Exercises
- Self- Assessment questions

Maintenance Optimization

- Understanding failures – PF & DIO-PF curve
- Maintenance strategy-RCM
- Maintenance strategy – CBM
- Other strategies
- Measures of performance
- Self- Assessment questions/Exercises

13:00 - 14:00 Lunch

⌚ 60min

Managing Performance

- Why performance measures?
- Types of performance measures
- Data collection and quality
- Benchmarking and benchmarks
- Measures of performance -KPIs
- Self- Assessment questions/Exercises

Workforce Management

- Employee lifecycle
- Understanding Generation gap
- Importance of communication
- People development – training
- Resource management
- Measures of performance
- Self- Assessment questions

15:30 - 15:45 Coffee Break

⌚ 15min

Problem Solving and Improvement Tools

- Types of problem-solving tools- 5 whys, RCA, FMEA, Pareto, etc.
- Six Sigma and Lean tools – Waste elimination, VSM, SPC, etc.
- Improvement strategies and practices
- Defect elimination process
- Measures of performance
- Self- Assessment questions/exercises

⌚ 17:00

Close of the Day 2



Day 3

09:00

Standards, standardization, and Certification

- Defining codes, standards, & standardization
- Types of standards
- Management process standards
- Asset Management related standards
- ISO 55000 – Asset Management Standards
- Value of certification
- Measures of performance
- Self- Assessment questions

10:30 - 10:45 Coffee Break

⌚ 15min

13:00 - 14:00 Lunch

⌚ 60min

Current Trends and Practices including Industry 4.0 digitalization.

- Sustainability
- Safety management
- Risk and Project management
- Corrosion control
- Industry 4.0 and digitalization
- Stress, wellness, and productivity
- Self- Assessment questions

15:30 - 15:45 Coffee Break

⌚ 15min

Class / Team exercises and discussion

- Team exercises to apply "Learnings."
- Presentations by the teams

⌚ 17:00

SMRP /-CMRP Body of Knowledge Review - Q/A Close of the Day 3

Suggested Reading Materials for CMRP Exam:

1-Req: Maintenance & Reliability Best Practices 3rd ed. By Ramesh Gulati; Industrial Press (ISBN 978-0-8311-3647-5)

2-Req: WORKBOOK to accompany MRBP 3rd ed.by Ramesh Gulati and Christopher Mears; Industrial Press (currently out of print... under revision)

In lieu, the key presentation slides (PDF) are provided

3- Optional: Uptime Elements' DICTIONARY for Reliability Leaders and Asset Managers, by Ramesh Gulati (ISBN: 978-1-941872-63-5)
Reliabilityweb Publication

4- Optional: 10 Rights of Asset Management by Ramesh Gulati and Terrence O'Hanlon; Reliabilityweb publication (ISBN: 978-1-941872-83-3)

Making Common Sense Common Practice by Ron Moore

Reliability Centered Maintenance by John Mourbray



mithun.siddartha@biiworld.com



www.biiworld.com

