



COURSE OVERVIEW RE0017
Certified Maintenance & Reliability Professional (CMRP)
(SMRP Exam Preparation Training)

Course Title

Certified Maintenance & Reliability Professional (CMRP): (SMRP Exam Preparation Training)

Course Date/Venue

Option 1: October 20-24, 2024/Online Virtual Training

Option 2: September 22-26, 2024/Online Virtual Training

Course Reference

RE0017



Course Duration/Credits

Five days/2.0 CEUs/20 PDHs

Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

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. The CMRP program is certified by the Society for Maintenance and Reliability Professionals (SMRP).



Examining more than just textbook information, the CMRP is a thorough examination of a broader scope of expertise measured against a universal standard. It was developed to assess professionals' aptitude within the five (5) pillars of the Maintenance and Reliability Body of Knowledge: Business Management, Equipment Reliability, Manufacturing Process Reliability, Organization and Leadership, and Work Management.



Every organization has a process for handling and documenting maintenance issues. Some are as simple and informal as the user calls maintenance to come fix something. Others use high powered computerized maintenance management software (CMMS).





Some organizations use formal planning and scheduling while others have the maintenance personnel plan and schedule their own work. Experience has shown that more informal and less planned and scheduled work is highly inefficient. On the other hand, too much planning, scheduling and documentation can also inefficiently use maintenance resources. The aim is to find the right balance of planning, scheduling and documentation to maximize the use of maintenance resources. In addition, one of the biggest challenges to adopting new processes is gaining acceptance at all levels in the organization. Management of change techniques is essential to a successful program.

This interactive course is designed to provide the participants with the information needed to understand their own maintenance management process as well as make improvements to their processes, so they can more effectively and efficiently use their maintenance resources. The participants will understand basic process development, planning and scheduling concepts and have the tools they need to work within their organization to improve the way they manage maintenance work.

The course includes an e-book entitled "*Maintenance and Reliability Certification Exam Guide*", published by Industrial Press, Inc., which will be given to the participants to help them appreciate the principles presented in the course.

This course shall provide adequate knowledge and skill for the participants to develop a strategy for outstanding maintenance and reliability performance, tools to improve reliability at equipment level and an insight to the latest practices in planning, scheduling and control. This course shall provide maintenance and an in-depth overview of the five pillars of the SMRP Body of Knowledge, along with the award-winning UK Model of Excellence for Maintenance.

Course Objectives

Upon the successful completion of the course, each participant will be able to:-

- Get prepared for the next CMRP exam and have enough knowledge and skills to pass such exam in order to get the CMRP certification from SMRP
- Create strategic direction and plan for maintenance and reliability operations, administer strategic plans and measure performance
- Manage organizational changes, communicate with stakeholders and manage environmental-health-safety risk
- Describe manufacturing process reliability including the applicable processes
- Apply process improvement techniques, manage effects of change to processes and equipment and maintain processes in accordance with applicable standards and regulations
- Determine equipment reliability expectations, evaluate equipment reliability and identify improvement opportunities
- Develop a strategic plan to assure the reliability of existing and new equipment
- Employ selected plans for implementation and assure equipment reliability
- Review reliability of equipment and adjust reliability strategy
- Determine organizational requirements and analyze organizational capability'



- Develop the organization structure and personnel as well as lead and manage people
- Identify, validate, approve, prioritize, plan, schedule, execute and document work in a professional manner
- Analyze work follow-up, measure work management performance and plan and execute projects
- Use information technologies effectively and manage resources and materials

Who Should Attend

This course covers systematic techniques in maintenance and reliability management to assist maintenance management personnel responsible for delivering maximum reliability and availability of equipment at the lowest possible cost. The course will present techniques designed to improve the effectiveness of maintenance management activities, to ensure that physical assets perform their required functions, operate reliably, and support corporate goals. It is essential for all maintenance and reliability management staff including reliability and mechanical engineers who are directly responsible for the equipment reliability and maintenance. The course is ideal for those experienced maintenance and reliability professionals who are seeking an international professional certification.

Exam Eligibility & Structure

The CMRP is an experienced-based exam. A candidate is unlikely to pass the exam based on knowledge gained from a book, course or educational degree.

Virtual Training (If Applicable)

If this course is delivered online as a Virtual Training, the following limitations will be applicable:-

Certificates	Only soft copy certificates will be issued to participants through Howard’s Portal. This includes Wallet Card Certificates if applicable
Training Materials	Only soft copy Training Materials (PDF format) will be issued to participant through the Virtual Training Platform
Training Methodology	80% of the program will be theory and 20% will be practical sessions, exercises, case studies, simulators or videos
Training Program	The training will be for 4 hours per day starting at 0930 and ending at 1330
H-STK Smart Training Kit	Not Applicable
Hands-on Practical Workshops	Not Applicable
Site Visit	Not Applicable
Simulators	Only software simulators will be used in the virtual courses. Hardware simulators are not applicable and will not be used in Virtual Training

Course Fee

US\$ 3,000 per Delegate + VAT.

Exam Fee

US\$ 630 per Delegate + VAT.





SMRP Certificate(s)

- (1) SMRP-CMRP certificates will be issued to participants who have successfully passed the SMRP-CMRP examination.



- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course

CEUs

Haward Technology Middle East
Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-23
HTME No. 74851
Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
RE0017	Certified Maintenance & Reliability Professional (CMRP); (SMRP Exam Preparation Training)	November 10-14, 2023	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date: 3.0

TRUE COPY
Jaryl Castillo
Academic Director

Haward Technology Middle East has been approved as the Accredited Provider by the International Association for Continuing Education and Training (IACET), 2001 Concordia Way, Suite 100, Leesport, VA 20151, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET L2018 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET L2018 Standard.

Haward Technology's programs meet the published standards and accreditation requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by:

- BAC
- ASNT
- ilm
- AVIA
- ISO 9001:2015
- UKAS
- iosh
- IACET

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 2093 714 | Email: info@haward.org | Website: www.haward.org






Course Certificate(s)


Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

- 
Society for Maintenance & Reliability Professionals (SMRP)


The course instructor is certified by **The Society for Maintenance & Reliability Professionals (SMRP)** to deliver and administer its internationally-recognized qualifications and certification programs on Maintenance & Reliability Best Practices. **SMRP** is a nonprofit professional society formed by practitioners to advance the reliability and physical asset management industry and to create leaders in the field. SMRP provides unparalleled value for individual practitioners looking to expand their knowledge and skills in maintenance and reliability and build more business connections with other practitioners.

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The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology’s courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **2.0 CEUs** (Continuing Education Units) or **20 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant’s involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant’s CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council for Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.





Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Option 1: Mr. Dimitry Rovas: October 20-24, 2024



Mr. Dimitry Rovas, CEng, MSc, PMI-PMP, SMRP-CMRP, is a **Senior Maintenance Engineer** with extensive industrial experience in **Oil, Gas, Power and Utilities** industries. His expertise includes **Process Plant Shutdown & Turnaround, Maintenance Optimization & Best Practices, Maintenance Auditing & Benchmarking, Reliability Management, Reliability Centered Maintenance Principles & Application, Machinery Lubrication, Maintenance Planning & Scheduling, Coupling & Shaft Alignment Techniques, Maintenance Management & Cost Control, Preventive & Predictive Maintenance, Effective**

Reliability Maintenance & Superior Maintenance Strategies, Integrity & Asset Management, Reliability, Availability & Maintainability (RAM), Total Plant Reliability Centered Maintenance, Turnaround & Outages, Process Plant Shutdown, Turnaround & Troubleshooting, Shutdown & Turnaround Management, Integrity & Asset Management, Maintenance Management Best Practices, Material Cataloguing, Maintenance Planning & Scheduling, Effective Reliability Maintenance, Maintenance Contracting & Outsourcing, Maintenance Inventory, Materials Management, Mechanical & Rotating Equipment Troubleshooting & Maintenance, Rotating Equipment Reliability Optimization, Computerized Maintenance Management System (CMMS), Material Cataloguing & Specifications, Rotating Equipment Maintenance & Troubleshooting, Pump Technology, Pump Selection & Installation, Reciprocating & Centrifugal Compressors, Gas & Steam Turbines, Turbine Operations, Valves, Bearings & Lubrication, Rubber Compounding, Elastomers, Thermoplastic, Industrial Rubber Products, Rubber Manufacturing Systems, Heat Transfer, Vulcanization Methods, Energy Conservation, Energy Loss Management, Energy Saving, Thermal Power Plant Management, Cogeneration Power Plant Installation & Commissioning, Auxiliary Steam Boilers Troubleshooting, Piping Racks (Steel Structure, Valves, Pipe Supports) Commissioning, Firefighting Systems, Steel & Welded Tanks, Aluminium Logistics Facilities (Cranes, Laydown Areas, Port Facilities, etc), Equipment Heavy Lifting, Long Term Storage of Equipment, Heat Transfer, Fluid Mechanics, Heating & Cooling Systems, Heat Insulation Systems, Heat Exchanger & Cooling Towers, Mechanical Erection and Heavy Rotating Equipment. He is currently the **Project Manager** wherein he is managing, directing and controlling all activities and functions associated with the domestic heating/cooling facilities projects.

During his life career, Mr. Rovas has gained his practical and field experience through his various significant positions and dedication as the **EPC Project Manager, Maintenance Manager, Mechanical Engineer, Field Engineer, Preventive Maintenance Engineer, Lead Rotating Equipment Commissioning Engineer, Construction Commissioning Engineer, Offshore Lead Maintenance Engineer, Researcher, Instructor/Trainer, Telecom Consultant and Consultant** from various companies such as the Mytilineos Aluminium Group, Podaras Engineering Studies, Metka and Diadikasia, S.A., **Hellenic Petroleum Oil Refinery** and COSMOTE.

Mr. Rovas is a **Chartered Engineer** of the **Technical Chamber of Greece**. Further, he has **Master degrees in Mechanical Engineering and Energy Production & Management** from the **National Technical University of Athens**. Moreover, he is a **Certified Instructor/Trainer, a Certified Maintenance and Reliability Professional (CMRP)** from the Society of Maintenance & Reliability Professionals (SMRP), a **Certified Project Management Professional (PMP)**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)** and a **Certified Six Sigma Black Belt**. He is an active member of **Project Management Institute (PMI)**, **Technical Chamber of Greece** and **Body of Certified Energy Auditors** and has further delivered numerous trainings, seminars, courses, workshops and conferences internationally.



OR,

Option 2: Mr. Yehia Omer: September 22-26, 2024



Mr. Yehia Omer, BSc, API, CMRP, is a **Senior Inspection Engineer** with over **25 years** of extensive experience within the **Petrochemical, Refinery, Utilities and Oil & Gas** industries. His expertise includes **Reliability Management, Effective Reliability Maintenance, Reliability Optimization, Pressure Vessel Inspection (API 510), Piping Inspection (API 570), Tank Inspection (API 653), Process Piping Design, Construction & Mechanical Integrity (ASME B31.3 & API 570), Inspection of Pressure Relieving Devices, Risk Based Inspection (RBI), Certified Maintenance & Reliability Professional (CMRP), Fitness-for-Service (FFS), P&ID & Engineering Drawings, Codes & Standards, Corrosion & Corrosion Control and Corrosion Awareness & Monitoring.** Further, he is also well-versed in **Welding Inspection, Inspection and Testing of Plant & Equipment** including **vessels, tanks, pipework, pipelines, structural systems** and an international expert in **API, ASME, NACE, NDT, ANSI, ASTM, BSI, DEP, DIN** and other engineering specifications and international standards. He is currently the **Inspection & Corrosion Manager** of **BPC** which is a partner of **Shell** wherein he is responsible for the corrosion and inspection aspects of the whole company.

Mr. Yehia has obtained and shared his in-depth practical experience wherein he was responsible for the inspection and recertification of pressure vessels, piping, tank and structures as he held numerous key positions for multi-international companies including **BPC (Shell), PetroJet, RashPetco (BG), Libya SIRTE Company** and **ADCO** as the **Pressure Vessel Inspector, Piping Inspector, Tank Inspector, Welding Inspection Engineer, Inspection Advisor** and **API Inspection Engineer**.

Mr. Yehia has a **Bachelor's degree in Mechanical Engineering**. Further, he is a **Certified Instructor/Trainer, a Certified Pressure Vessel Inspector (API-510), a Certified Piping Inspector (API-570), a Certified Tank Inspector (API-653), a Certified Maintenance and Reliability Professional (CMRP)** from the Society of Maintenance & Reliability Professionals (**SMRP**), and has acquired certifications in **Pressure Vessel Design and Inspection (ASME VIII DIV I&II)** and **Corrosion** in Petroleum Industries from the **American University** as well as a **Competent Scaffolding Supervisor** certificate from the **Occupational Safety and Health Administration (OSHA)**. He has further delivered numerous trainings, courses, seminars, conferences and workshops globally.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.



Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0930 - 0935	Registration, Coffee, Welcome & Introduction
0935 - 0945	PRE-TEST
0945 - 1030	Business & Management Create Strategic Direction & Plan for Maintenance & Reliability Operations (Provide Vision & Direction, Provide Clear & Measurable Goals) • Administer Strategic Plan (Develop Support, Obtain Approval & Resources, Implement Plans)
1030 - 1035	Break
1035 - 1115	Business & Management (cont'd) Measure Performance (Select Key Performance Indicators, Track & Report) • Manage Organizational Plan (Develop Change Management Process, Communicate Benefits)
1115 - 1200	Business & Management (cont'd) Communicate with Stakeholders (Provide Management Reports, Inform Staff, Coordinate with Operations)
1200 - 1205	Break
1205 - 1235	Business & Management (cont'd) Manage Environmental-Health-Safety Risk (Support Community EHS Goals, Support Security Goals, Conform to Applicable Regulations, Provide EHS Training)
1235 - 1325	Quiz
1325 - 1330	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1330	End of Day One

Day 2

0930 - 1000	Review of Day 1
1000 - 1030	Manufacturing Process Reliability Understand the Applicable Processes (Document Process Flow, Understand Process Parameters, Understand Quality Specifications)
1030 - 1035	Break
1035 - 1115	Manufacturing Process Reliability (cont'd) Apply Process Improvement Techniques (Identify Production Losses, Establish Continuous Improvement Process)
1115 - 1200	Manufacturing Process Reliability (cont'd) Manage Effects of Change to Processes & Equipment (Establish Change Protocol, Update Documentation, Update Procedures)
1200 - 1205	Break
1205 - 1235	Manufacturing Process Reliability (cont'd) Maintain Processes per Applicable Standards & Regulations (Understand Industry Standards, Understand Regulatory Requirements, Ensure Compliance)
1235 - 1325	Quiz
1325 - 1330	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1330	End of Day Two





Day 3

0930 - 1000	Review of Day 2
1000 - 1030	Equipment Reliability Determine Equipment Reliability Expectations (Identify Reliability Goals, Identify Process Expectations) • Evaluate Equipment Reliability & Identify Improvement Opportunities (Measure & Track Performance, Determine Best-Demonstrated Performance, Analyze Gaps)
1030 - 1035	Break
1035 - 1115	Equipment Reliability (cont'd) Establish a Strategic Plan to Assure Reliability of Existing Equipment (Identify Appropriate Analysis Techniques, Develop Maintenance Strategy & Tactics) • Establish a Strategic Plan to Assure Reliability of New Equipment (Establish Reliability Specifications, Establish Acceptance Criteria, Obtain Complete Documentation)
1115 - 1200	Equipment Reliability (cont'd) Cost-Justify Selected Plans for Implementation (Conduct Cost-Benefit Analysis, Communicate Benefits, Obtain Approval) • Implement Selected Plans to Assure Equipment Reliability (Apply Reliability Strategies, Establish Organization Structure, Provide Resources)
1200 - 1205	Break
1205 - 1235	Equipment Reliability (cont'd) Review Reliability of Equipment & Adjust Reliability Strategy (Assess Key Performance Indicators, Analysis Deviations, Identify Relevant Best Practices, Implement Continuous Improvement)
1235 - 1325	Quiz
1325 - 1330	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1330	End of Day Three

Day 4

0930 - 1000	Review of Day 3
1000 - 1030	Organization & Leadership Determine Organizational Requirements (Review Strategic Plan, Determine Required Skills, Determine Required Staffing Levels) • Analyze Organizational Capability (Inventory Staff Skills, Determine Performance Gaps)
1030 - 1035	Break
1035 - 1115	Organization & Leadership (cont'd) Develop the Organizational Structure (Establish Reporting Channels, Determine Roles, Determine Responsibilities, Manage Reorganization)
1115 - 1200	Organization & Leadership (cont'd) Develop Personnel (Provide Training, Obtain Needed Expertise, Delineate Career Paths)
1200 - 1205	Break



1205 - 1235	Organization & Leadership (cont'd) <i>Lead & Manage People (Develop Leadership Skills, Assess Performance, Promote a Cooperative Work Environment, Facilitate Communication)</i>
1235 - 1325	Quiz
1325 - 1330	Recap <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i>
1330	<i>End of Day Four</i>

Day 5

0930 - 1000	<i>Review of Day 4</i>
1000 - 1030	Work Management <i>Identify, Validate & Approve Work (Establish Work Identification Processes, Select & Approve Viable Work) • Prioritize Work (Develop Formal Prioritizing System, Implement Formal Prioritizing System) • Plan Work (Develop Job Package, Including Scope & Procedures, Including Materials & Tools, Including Testing)</i>
1030 - 1035	<i>Break</i>
1035 - 1115	Work Management (cont'd) <i>Schedule Work (Develop Scheduling Process, Produce Work Schedule, Balance Resources, Monitor Backlog, Manage Break-in Work, Coordinate Equipment Access) • Execute Work (Manage Labor, Manage Material & Services, Control Productivity, Ensure EHS Compliance) • Document Work (Create Post-Work Document Process, Record Failure Events & Failure Modes)</i>
1115 - 1200	Work Management (cont'd) <i>Analyze Work & Follow-Up (Compare Actual Work with Plan, Identify Variances) • Measure Work Management Performance (Establish Performance Indicators, Report Schedule Compliance & Rework) • Plan & Execute Projects (Define Scope, Estimate Project & Life Cycle Costs, Apply Critical Path Methods, Track Progress, Coordinate Staffing)</i>
1200 - 1205	<i>Break</i>
1205 - 1315	Work Management (cont'd) <i>Use Information Technologies Effectively (Leverage Capabilities of Data Historian, Process Control Systems, Condition Monitoring Software, EAM, CMMS Systems Functionality) • Manage Resources & Materials (Control Materials Inventory, Manage Spares & Equipment, Establish MRO Procurement Process, Manage Contractors)</i>
1310 - 1315	Course Conclusion <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>
1315 - 1330	POST-TEST
1330	<i>End of Course</i>

MOCK Exam

Upon the completion of the course, participants have to sit for a MOCK Examination similar to the exam of the Certification Body through Haward’s Portal. Each participant will be given a username and password to log in Haward’s Portal for the MOCK exam during the 30 days following the course completion. Each participant has only one trial for the MOCK exam within this 30-day examination window. Hence, you have to prepare yourself very well before starting your MOCK exam as this exam is a simulation to the one of the Certification Body.5



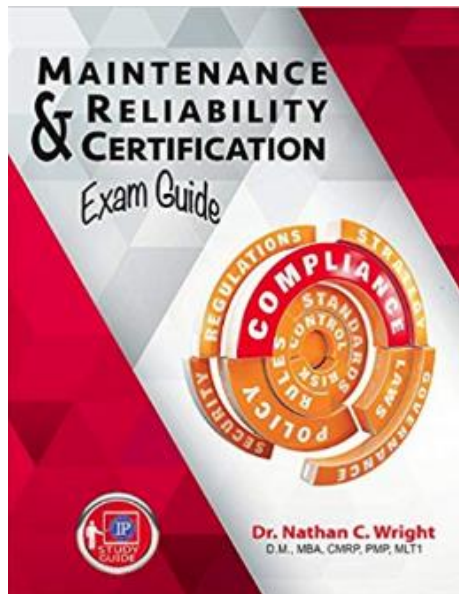
Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Book(s)

As part of the course kit, the following e-book will be given to all participants:



Title : Maintenance & Reliability Certification Exam Guide
ISBN : 9780831136239
Author : Dr. Nathan C. Wright
Publisher : Industrial Press, Inc.

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org

