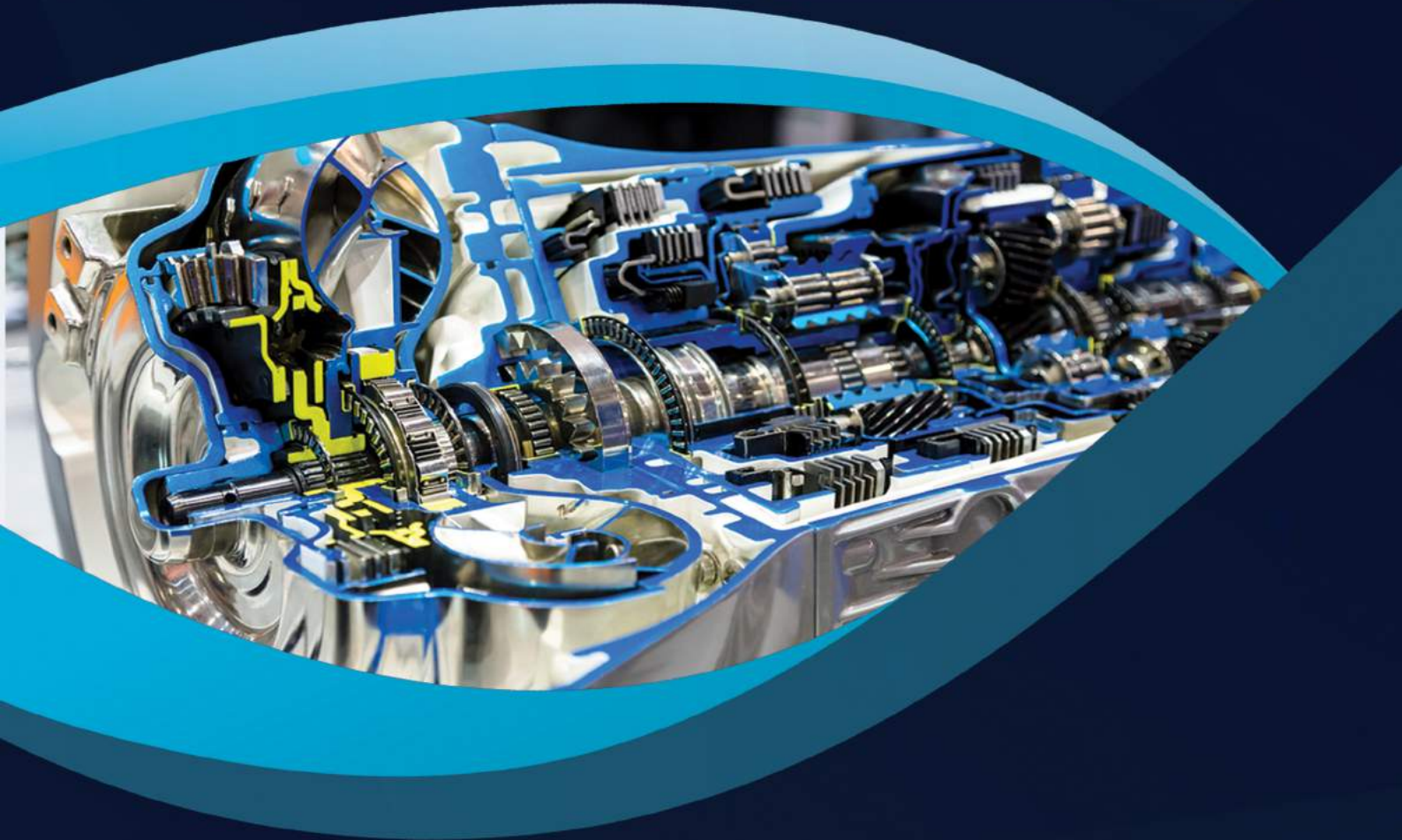


# CMRP



**Certified  
Maintenance & Reliability  
Professional**



**The Certified Maintenance & Reliability Professional (CMRP) program is the leading credential for validating the knowledge, skills and abilities of maintenance, reliability and physical asset management professionals. It is the only accredited certification following the ISO standards for individuals in maintenance, reliability and physical asset management. The exam tests real-world knowledge, including work management and leadership skills, to give individuals the tools to take the next step in their careers.**



## - **Why certify with CMRP?**

- Many employers use the CMRP certification as a prerequisite for hiring employees.
- Four out of five CMRP-certified individuals recommend the CMRP as a means to advance an individual's career.
- The CMRP certification complies with ISO 17024, which is accredited by American National Standards Institute (ANSI).
- Becoming certified includes SMRP membership and access to continuing education opportunities, metrics and best practices.





## - Course Key Topics

- **Pillar 1: Business & Management**

Create and manage a strategic direction and plan for reliability  
Select, track and report on key performance indicators  
Change management and communication  
Managing environmental, health and safety risks.





- **Pillar 2: Manufacturing Process Reliability**

Understand process flow, parameters and quality specs

Process improvement techniques- e.g. loss elimination and continuous improvement programs maintaining processes in accordance with standards and regulations.

- **Pillar 3: Equipment Reliability**

Determining equipment reliability expectations and goals

Evaluate equipment reliability and identify improvement opportunities Establish a plan to ensure equipment reliability for new and existing assets Cost justify plans for implementation.



- **Pillar 4: Organization & Leadership**

Determining organizational competency and staffing requirements analyzing organizational capability and developing personnel Organizational structure, roles and responsibilities for reliability Leading and managing people.

- **Pillar 5: Work Management**

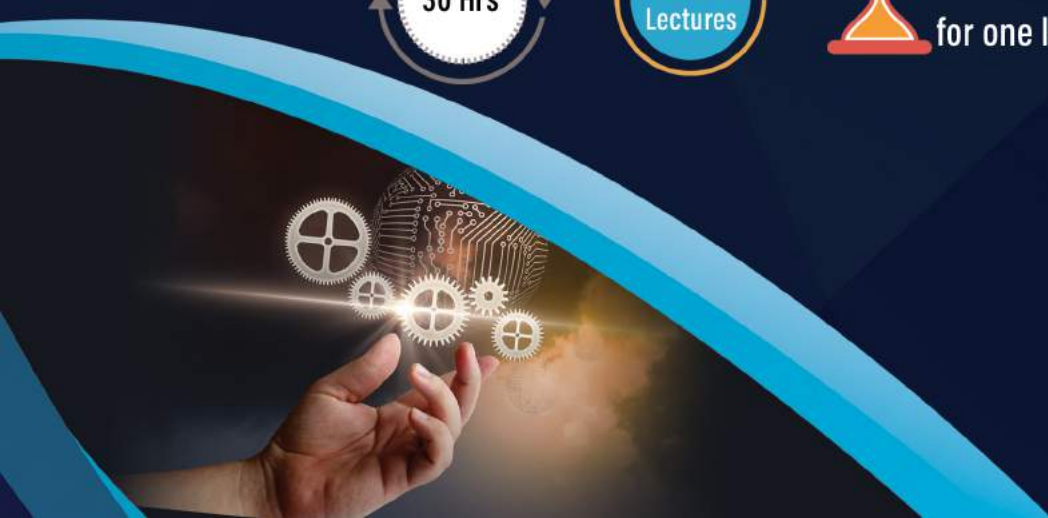
How to identify, validate and approve maintenance and reliability work Maintenance and reliability work priority, planning and scheduling Planning and executing maintenance and reliability projects Using information technologies effectively Managing resources and materials effectively

## - **Course Duration**



**3 Hrs**  
for one lecture

Include Simulator Exam  
**660** Questions



# Dr. Yasser Shaban

- 1- Holds a Ph.D. in industrial engineering from Polytechnique which ranks first in Canada
- 2- His research field is Data-Driven maintenance, reliability, mechanical vibration.
- 3- He is CMRP Certified and SMRP member
- 4- Won the best research for 2014 from Society of Engineering and Management System (SEMS),USA.
- 5- Honored from Institute of Industrial Engineers (IIE) which is the biggest community of industrial engineers over the world and got the best paper award in Industrial & Systems Engineering Research Conference (ISERC 2014).
- 6- He is a member of the Institute of Industrial Engineers.
- 7- He has been teaching at Faculty of Engineering, Helwan University and Polytechnique, Montreal University, Canada during the last 14 years. He has been teaching many courses.
- 8- He has attended many courses at McGill, Concordia, Montreal.
- 9- His achievements are recognized by media and newspapers, and also by Nature Magazine which is a prominent interdisciplinary scientific journal and ranked as the world's most cited journal.





# CMRP Course Content

No.	Title	Contents	Pillar No.
1	Introduction	Orientation	--
2	Work Management	1. Introduction 2. Maintenance 3. Understanding Failure	5
3	Equipment Reliability	1. Introduction 2. Reliability 3. Failure Patterns 4. Bathtub curve	3
4	Equipment Reliability	1. Reliability Distributions 2. Reliability Block Diagram (RBD) 3. Metrics	3
5	Work Management	1. Reliability 2. Reliability Centered Maintenance (RCM) 3. Planning & Scheduling	5
6	Work Management	1. Inventory Management 2. M&R Analysis Tools 3. Metrics	5
7	Manufacturing Process Reliability	1. Introduction 2. Lean 3. Operator Driven Reliability (ODR) 4. Total Productive Maintenance (TPM) 5. Workplace Organization: 5 S 6. Case Study 7. Metrics	2
8	Organization and Leadership	1. Introduction 2. Leadership and Organizational Culture 3. Vision, Mission, and Goals 4. Organization Structures 5. The reliability/maintenance leaders 6. Employee Life Cycle 7. People Development 8. Metrics	4
9	Business and management	1. Introduction 2. KPIs 3. Benchmarking 4. Change management Theory 5. Metrics	1
10	Simulated Exam	6 Exams (660 Questions)	--





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