COURSE OVERVIEW RE0085
Certified Advanced Maintenance Management (CAMM)

Course Title
Certified Advanced Maintenance Management (CAMM)

Course Date/Venue
September 07-11, 2025/The Mouna Meeting Room, The H Hotel, Sheikh Zayed Rd - Trade Centre, Dubai, UAE

Course Reference
RE0085

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of Certificate in Advanced Maintenance Management (CAMM). It covers the fundamentals of maintenance including the roles and responsibilities of a maintenance manager; the types of maintenance covering preventive, predictive, reactive and proactive; the asset life cycle comprising of design, procurement, installation, maintenance and decommissioning; and the reliability-centered maintenance (RCM), preventive and predictive maintenance, scheduling, checklists, vibration analysis and infrared thermography.

Further, the course will also discuss the maintenance strategy and planning, work planning and scheduling, resource allocation and inventory and spares management; the maintenance key performance indicators KPIs covering downtime metrics and costs and ROI; the reliability engineering and modelling; the root cause analysis (RCA), fishbone diagrams and failure mode analysis; and the maintenance safety protocols, safety guidelines, personal protective equipment (PPE), hazard identification and risk assessment.

During this interactive course, participants will learn the incident reporting and management and emergency response planning; the features of maintenance management software; the implementation, data input and management of computerized maintenance management system (CMMS); the internet of things (IoT) in maintenance, digital twin technology and cybersecurity concerns; the data analytics and decision making, leadership skills for maintenance managers and communication skills; and the team building and motivation, training and development and future trends in maintenance management.

Course Objectives

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

- Apply and gain an in-depth knowledge on advanced maintenance management
- Discuss the fundamentals of maintenance including the roles and responsibilities of a maintenance manager
- Identify the types of maintenance covering preventive, predictive, reactive and proactive
- Illustrate asset life cycle comprising of design, procurement, installation, maintenance and decommissioning
- Carryout reliability-centered maintenance (RCM), preventive and predictive maintenance, scheduling, checklists, vibration analysis and infrared thermography
- Employ maintenance strategy and planning, work planning and scheduling, resource allocation and inventory and spares management
- Apply maintenance key performance indicators (KPIS) covering downtime metrics and costs and ROI
- Illustrate reliability engineering and modelling, root cause analysis (RCA), fishbone diagrams and failure mode analysis
- Implement maintenance safety protocols, safety guidelines, personal protective equipment (PPE), hazard identification and risk assessment
- Carryout incident reporting and management and emergency response planning
- Discuss the features of maintenance management software including the implementation, data input and management of computerized maintenance management system (CMMS)
- Identify internet of things (IoT) in maintenance, digital twin technology and cybersecurity concerns
- Apply data analytics and decision making, leadership skills for maintenance managers and communication skills
- Employ team building and motivation, training and development and future trends in maintenance management

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of advanced maintenance management for maintenance managers, facility managers, operations managers, reliability engineers, maintenance engineers, maintenance planners and schedulers, maintenance supervisors, and maintenance technicians.

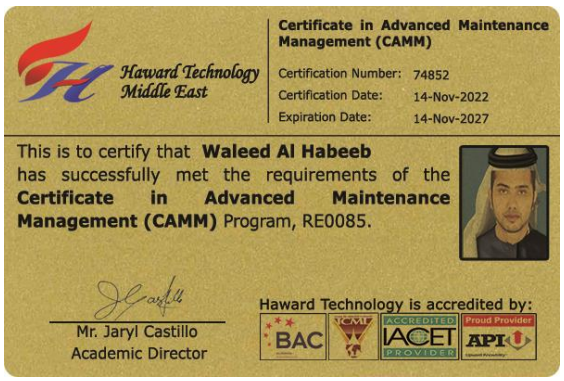
Course Certificate(s)

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of the certificates that will be awarded to course participants: -



(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.

Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-22

HTME No. 74852

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
RE0085	Certificate in Advanced Maintenance Management (CAMM)	November 10-14, 2022	30	3.0

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

TRUE COPY

Jaryl Castillo
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2013 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 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

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | E-mail: info@haward.org | Website: www.haward.org

Certificate Accreditations

Haward's Certificates are accredited by the following international accreditation organizations:

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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.

- 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 **3.0 CEUs** (Continuing Education Units) or **30 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.

Course Fee

US$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

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:

Mr. Andrew Ladwig is a **Senior Process & Mechanical Maintenance Engineer** with over **25 years** of extensive experience within the **Oil & Gas**, **Refinery**, **Petrochemical & Power** industries. His expertise widely covers in the areas of **Ammonia Manufacturing & Process Troubleshooting**, **Distillation Towers**, **Crude Oil Distillation**, **Ammonia Storage & Loading** Systems, **Operational Excellence** in **Ammonia Plants**, **Fertilizer Storage** Management (Ammonia & Urea), **Fertilizer Manufacturing** Process Technology, **Sulphur Recovery**, Phenol Recovery & Extraction, **Refining Process & Petroleum Products**, **Refinery Planning & Economics**, **Hydrotreating & Hydro-processing**, **Separators** in **Oil & Gas** Industry, **Gas Testing & Energy** Isolations, **Industrial Liquid Mixing**, **Extractors**, **Fractionation**, **Water Purification**, **Water Transport** & Distribution, **Environmental Emission Control**, **Process Plant** Troubleshooting & Engineering Problem Solving, **Process Plant Performance**, **Plant Startup & Shutdown**, **Process Troubleshooting** Techniques and Oil & Gas Operation/Surface Facilities. Further, he is also well-versed in **Rotating Machinery** (**BRM**), **Rotating Equipment** Operation & Troubleshooting, Root Cause Analysis (**RCA**), **Process Plant** Shutdown, Turnaround & Troubleshooting, Planning & Scheduling **Shutdowns & Turnarounds**, Optimizing **Equipment Maintenance** & Replacement Decisions, **Maintenance Planning & Scheduling**, **Material Cataloguing**, Maintenance, Reliability & Asset Management Best Practices, **Storage Tanks Operations** & Measurements, **Tank** Inspection & Maintenance, **Pressure Vessel** Operation, **Flare & Relief** System, **Flaring System** Operation, **PSV** Inspection & Maintenance, **Centrifugal & Reciprocating Compressor**, **Screw Compressor** Troubleshooting, **Heat Exchanger** Overhaul & Testing, **Pipe Stress** Analysis, **Control Valves & Actuators**, **Vent & Relief System**, **Centrifugal & Reciprocating Pump** Installation & Repair, **Heat Exchanger** Troubleshooting & Maintenance, **Steam Trapping & Control**, **Control & ESD** System and Detailed Engineering Drawings, Codes & Standards.

During his career life, Mr. Ladwig has gained his practical experience through his various significant positions and dedication as the **Mechanical Engineer**, **Project Engineer**, **Reliability & Maintenance Engineer**, **Maintenance Support Engineer**, **Process Engineer**, **HSE Supervisor**, **Warehouse Manager**, **Quality Manager**, **Business Analyst**, **Senior Process Controller**, **Process Controller**, **Safety Officer**, **Mechanical Technician**, **Senior Lecturer** and **Senior Consultant/Trainer** for various companies such as the Sasol Ltd., Sasol Wax, Sasol Synfuels, just to name a few.

Mr. Ladwig has a **Bachelor's** degree in **Chemical Engineering** and a **Diploma** in **Mechanical Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**) and has delivered various trainings, workshops, seminars, courses and conferences internationally.

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: ***Sunday, 07th of September 2025***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Maintenance Management Fundamentals*** *Defining Maintenance Management • History & Evolution*
0930 – 0945	*Break*
0945 – 1045	***Role & Responsibilities of a Maintenance Manager*** *Job Descriptions • Expectations & Goals*
1045 – 1145	***Types of Maintenance*** *Preventive • Predictive • Reactive • Proactive*
1145 – 1200	*Break*
1200 – 1300	***Asset Life Cycle*** *Design • Procurement • Installation • Maintenance • Decommission*
1300 – 1420	***Industry Best Practices*** *ISO Standards • Reliability-Centered Maintenance (RCM)*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2: ***Monday, 08th of September 2025***

0730 – 0830	***Preventive Maintenance (PM)*** *Scheduling • Checklists*
0830 - 0930	***Predictive Maintenance (PdM)*** *Vibration Analysis • Infrared Thermography*
0930 – 0945	*Break*
0945 – 1045	***Maintenance Strategy & Planning*** *Maintenance Strategy • Work Planning • Work Scheduling*
1045 – 1145	***Resource Allocation*** *Budgeting • Manpower*
1145 – 1200	*Break*
1200 – 1245	***Inventory & Spares Management*** *Stock Levels • Vendor Management*
1245 – 1420	***Maintenance Key Performance Indicators (KPIs)*** *Downtime Metrics • Costs & ROI*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3: Tuesday, 09th of September 2025

0730 – 0830	***Reliability Engineering*** *Definitions and Concepts • Reliability Modeling*
0830 - 0930	***Root Cause Analysis (RCA)*** *Fishbone Diagrams • Failure Mode Analysis*
0930 – 0945	*Break*
0945 – 1045	***Maintenance Safety Protocols*** *Safety Guidelines • Personal Protective Equipment (PPE)*
1045 – 1145	***Hazard Identification & Risk Assessment*** *Methods & Approaches • Mitigation Plans*
1145 – 1200	*Break*
1200 – 1245	***Incident Reporting & Management*** *Documentation • Follow-Up*
1245 – 1420	***Emergency Response Planning*** *Fire Safety • Chemical Spills*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4: Wednesday, 10th of September 2025

0730 – 0930	***Maintenance Management Software*** *Features • Software Selection Criteria*
0930 – 0945	*Break*
0945 – 1045	***Computerized Maintenance Management System (CMMS)*** *Implementation • Data Input & Management*
1045 – 1145	***Internet of Things (IoT) in Maintenance*** *Smart Sensors • Data Analysis*
1145 – 1200	*Break*
1200 – 1315	***Digital Twin Technology*** *Benefits & Limitations • Real-world Case Studies*
1315 – 1345	***Data Analytics & Decision Making*** *Data Collection Methods • Data Interpretation*
1345 - 1420	***Cybersecurity Concerns*** *Risk Factors • Best Practices*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

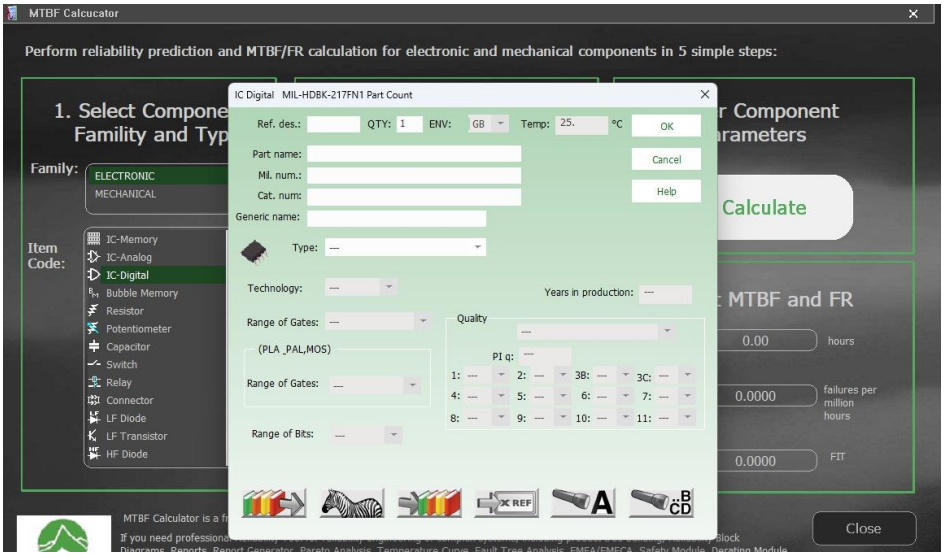
Day 5: Thursday, 11th of September 2025

0730 – 0830	***Leadership Skills for Maintenance Managers*** *Emotional Intelligence • Conflict Resolution*
0830 -- 0930	***Communication Skills*** *Technical Writing • Verbal Communication*
0930 – 0945	*Break*
0945 – 1115	***Team Building & Motivation*** *Team Dynamics • Incentive Systems*
1115 – 1215	***Training & Development*** *Employee Training Programs • Succession Planning*
1215 – 1230	*Break*
1230 – 1300	***Future Trends in Maintenance Management*** *Sustainable Practices • Machine Learning & AI*
1300 – 1315	***Course Conclusion***
1315 – 1415	***COMPETENCY EXAM***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

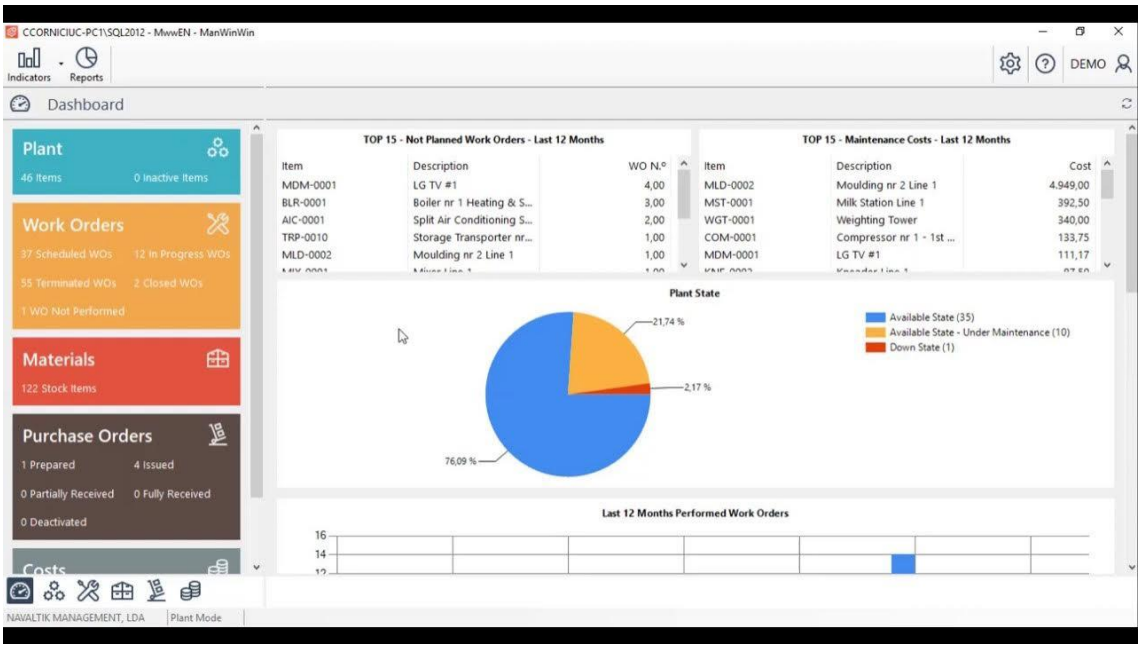
Simulator (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using the state-of-the-art simulator "iLearnVibration", "MTBF Calculator" and "ManWinWin Express CMMS Software".

iLearnVibration



MTBF Calculator



ManWinWin Express CMMS Software

Course Coordinator

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