



## **COURSE OVERVIEW RE0135** **Maintenance Planning & Material Management**

### **Course Title**

Maintenance Planning & Material Management

### **Course Date/Venue**

December 28 – January 01, 2026/Pierre Lotti  
Meeting Room, Movenpick Hotel Istanbul Golden  
Horn, Istanbul, Turkey

### **Course Reference**

RE0135

### **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 Maintenance Planning & Material Management. It covers the maintenance planning fundamentals and material management principles; the maintenance workflow and material flow, spare parts in maintenance and reliability-based planning; the maintenance planning tools and software, maintenance scheduling techniques, material requirement planning (MRP), work order planning and material allocation; the capacity and resource planning, maintenance shutdown/turnaround planning and inventory control systems; the spare parts forecasting techniques, warehouse operations and layout design; and the procurement interface and supply chain coordination.



During this interactive course, participants will learn the material preservation and storage practices, KPIs and reporting for inventory management and reliability-based spare parts strategy; the failure and root cause analysis for material issues, maintenance cost control, budgeting, material data integrity and documentation; the vendor relationship and performance evaluation, continuous improvement and lean practices; the integrated maintenance and material management systems; the performance measurement and improvement, handling urgent requirements, temporary replacements and alternative materials; managing material traceability during emergencies; the material audit types, record retention, documentation control, reporting systems and KPI dashboards; and the role of material unit in ISO and asset integrity audits.



### **Course Objectives**

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

- Apply and gain an in-depth knowledge on maintenance planning and material management
- Discuss maintenance and material management, maintenance planning fundamentals and material management principles
- Recognize maintenance workflow and material flow, spare parts in maintenance and reliability-based planning
- Identify maintenance planning tools and software and apply maintenance scheduling techniques, material requirement planning (MRP), work order planning and material allocation
- Carryout capacity and resource planning, maintenance shutdown/turnaround planning and inventory control systems
- Employ spare parts forecasting techniques, warehouse operations and layout design including procurement interface and supply chain coordination
- Apply material preservation and storage practices, KPIs and reporting for inventory management as well as reliability-based spare parts strategy
- Identify failure and root cause analysis for material issues and apply maintenance cost control, budgeting, material data integrity and documentation
- Carryout vendor relationship and performance evaluation, continuous improvement and lean practices and integrated maintenance and material management systems
- Implement performance measurement and improvement, handling urgent requirements, temporary replacements and alternative materials and managing material traceability during emergencies
- Recognize the material audit types, record retention and documentation control, reporting systems and KPI dashboards and the role of material unit in ISO and asset integrity audits

### **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 maintenance planning and material management for maintenance planners and schedulers, maintenance engineers and supervisors, reliability and asset management professionals, operations and plant engineers, shutdown and turnaround planners warehouse, inventory and material controllers, procurement and supply chain specialists, cost analysts and budget controllers and other technical staff.

### **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**

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.

### **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:



**Dr. Tony Dimitry**, PhD, MSc, BSc, is a **Senior Mechanical & Maintenance Engineer** with over **30 years** of industrial experience within the **Petroleum, Oil & Gas, Petrochemical, Nuclear & Power** industries. His expertise covers **Maintenance Planning, Coordination & Scheduling, Material Management Principles, Spare Parts in Maintenance, Preventive Maintenance & Condition Monitoring, Reliability Centred Maintenance (RCM), Risk Based Inspection (RBI), Root Cause Analysis (RCA), Planning & Managing Plant Turnaround,**

**Scheduling Maintenance, Data Archive Maintenance, Master Milestone Schedule (MMS), Piping & Mechanical Vibration Analysis, Preventive & Predictive Maintenance (PPM) Maintenance, Condition Based Monitoring (CBM), Risk Based Assessment (RBA), Planning & Preventive Maintenance, Maintenance Management (Preventive, Predictive, Breakdown), Reliability Management, Rotating Equipment, Scheduling & Cost Control, Maximo Foundation, Maximo Managing Work, Asset Management Best Practices, Resource Management, Inventory Set-up & Management, Work Management, Automatic & Work Flows & Escalations, Vibration Analysis, Engineering Drawings, Engineering Drawings & Diagrams, AutoCAD & GIS Support, Retail Engineering Drawings, Codes & Standards, Mechanical Diagrams Interpretation, Reading Engineering Drawings, Process & Project Drawings, Engineering Drawings Interpretation, Piping Layouts & Isometrics, P&ID Reading & Interpretation, Glass Reinforced Epoxy (GRE), Glass Reinforced Pipes (GRP), Glass Reinforced Vent (GRV), Mechanical Pipe Fittings, Flange Joint Assembly, Adhesive Bond Lamination, Butt Jointing, Joint & Spool Production, Isometric Drawings, Flange Assembly Method, Fabrication & Jointing, Jointing & Spool Fabrication, Pipe Cuttings, Flange Bolt Tightening Sequence, Hydro Testing, Failure Analysis Methodologies, Heat Exchanger, Siemens, Gas & Steam Turbine Maintenance, Pumps & Compressors, Turbo-Expanders, Fractional Columns, Boilers, Cryogenic Pumps for LNG, Electromechanical Maintenance, Machinery Alignment, Lubrication Technology, Bearing & Rotary Machine, Blower & Fan, Shaft Repair, Safety Relief Valves, Pipelines, Piping, Pressure Vessels, Process Equipment, Diesel Engine & Crane Maintenance, Tanks & Tank Farms, Pneumatic System, Static Equipment, FMEA, Corrosion, Metallurgy, Thermal and Electrical Modelling of Battery Problems.** He is also well-versed in various simulators such as **i-Learn Vibration, AutoCAD, Word Access, Aspen One, Fortran, VB, C ANSYS, ABAQUS, DYNA3D, Ceasar, Caepipe, MS Project, Primavera, MS Excel, Maximo, Automation Studio and SAP.** Currently, he is the **Maintenance Manager** of the **PPC Incorporation** wherein he is responsible for the maintenance and upgrading of all **Power Station** components.

During his career life, Dr. Dimitry held a significant positions such as the **Operations Engineers, Technical Trainer, HSE Contracts Engineer, Boilers Section Engineer, Senior Engineer, Trainee Mechanical Engineer, Engineer, Turbines Section Head, Professor, Lecturer/Instructor and Teaching Assistant** from various multinational companies like **Chloride Silent Power Ltd., Technical University of Crete, National Nuclear Corporation, UMIST Aliveri Power Station and HFO Fired Power Station.**

Dr. Dimitry has **PhD, Master and Bachelor** degrees in **Mechanical Engineering** from the **Victory University of Manchester** and the **University of Newcastle, UK** respectively. Further, he is a **Certified Instructor/Trainer, a Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)** and an associate member of the **American Society of Mechanical Engineers (ASME)** and **Institution of Mechanical Engineers (IMechE).** He has further delivered various trainings, seminars, courses, workshops 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 Fee

**US\$ 6,000** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

### Course Program

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

#### **Day 1: Sunday, 28<sup>th</sup> of December 2025**

|             |                                                                                                                                                                                                                                                                                            |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0730 – 0800 | Registration & Coffee                                                                                                                                                                                                                                                                      |
| 0800 – 0815 | Welcome & Introduction                                                                                                                                                                                                                                                                     |
| 0815 – 0830 | <b>PRE-TEST</b>                                                                                                                                                                                                                                                                            |
| 0830 – 0930 | <b>Introduction to Maintenance &amp; Material Management</b><br>Maintenance Objectives and Types (Corrective, Preventive, Predictive) • Role of Material Management in Maintenance Efficiency • Maintenance–Stores–Procurement Interface • KPIs for Maintenance and Materials Coordination |
| 0930 – 0945 | Break                                                                                                                                                                                                                                                                                      |
| 0945 – 1030 | <b>Maintenance Planning Fundamentals</b><br>Planning Hierarchy (Strategic, Tactical, Operational) • Elements of a Maintenance Plan • Work Request, Planning, and Scheduling Flow • Planner's Responsibilities and Daily Workflow                                                           |
| 1030 – 1130 | <b>Material Management Principles</b><br>Definition and Objectives of Material Management • Material Identification, Classification and Coding Systems • Material Cataloguing and Standardization Techniques • Integration of Materials Data with CMMS/ERP                                 |
| 1130 – 1215 | <b>Maintenance Workflow &amp; Material Flow</b><br>Work Order System and Material Requisition Flow • Material Reservation, Issuance, and Return Process • Coordination Between Planner and Storekeeper • Material Traceability and Documentation                                           |
| 1215 – 1230 | Break                                                                                                                                                                                                                                                                                      |
| 1230 – 1330 | <b>Understanding Spare Parts in Maintenance</b><br>Types of Spare Parts (Critical, Consumables, Rotables) • Criticality Analysis of Spare Parts • Spare Part Planning Methods (ABC, VED, XYZ) • Lead Time and Procurement Cycle Understanding                                              |



|             |                                                                                                                                                                                                                                     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1330 – 1420 | <b>Basics of Reliability-Based Planning</b><br>Reliability-Centered Maintenance (RCM) Principles • Asset Hierarchy and Reliability Modeling • Equipment History and Failure Trends • Planning Materials for Reliability Improvement |
| 1420 – 1430 | <b>Recap</b><br>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                                             |
| 1430        | Lunch & End of Day One                                                                                                                                                                                                              |

**Day 2: Monday, 29<sup>th</sup> of December 2025**

|             |                                                                                                                                                                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0730 – 0830 | <b>Maintenance Planning Tools &amp; Software</b><br>Overview of CMMS, SAP PM, Maximo and Oracle EAM • Work Order Generation and Tracking • Linking Spare Parts and BOM in CMMS • Digital Dashboards for Maintenance KPIs                      |
| 0830 – 0930 | <b>Maintenance Scheduling Techniques</b><br>Short-Term and Long-Term Scheduling • Gantt Charts and Resource Leveling • Integrating Labor, Tools and Material Availability • Weekly and Daily Maintenance Coordination Meetings                |
| 0930 – 0945 | Break                                                                                                                                                                                                                                         |
| 0945 – 1100 | <b>Material Requirement Planning (MRP)</b><br>Principles of MRP and its Inputs (BOM, Lead Time, Stock) • Exploding Demand and Net Requirements • Aligning MRP with Preventive Maintenance Plans • Case Study on MRP Implementation            |
| 1100 – 1215 | <b>Work Order Planning &amp; Material Allocation</b><br>Identifying Material Needs per Job • Work Order Kitting and Staging • Managing Shortages and Substitutions • Coordination with Procurement and Warehouse                              |
| 1215 – 1230 | Break                                                                                                                                                                                                                                         |
| 1230 – 1330 | <b>Capacity &amp; Resource Planning</b><br>Resource Balancing Between Manpower and Material • Planning Spare Parts for Planned Shutdowns • Material Availability for Critical Jobs • Aligning Maintenance and Production Schedules            |
| 1330 – 1420 | <b>Maintenance Shutdown/Turnaround Planning</b><br>Planning Phases (Initiation, Preparation, Execution, Closeout) • Material List and Pre-Ordering Process • Temporary Storage and Logistics • Post-Turnaround Evaluation and Lessons Learned |
| 1420 – 1430 | <b>Recap</b><br>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                                                       |
| 1430        | Lunch & End of Day Two                                                                                                                                                                                                                        |

**Day 3: Tuesday, 30<sup>th</sup> of December 2025**

|             |                                                                                                                                                                                                                                        |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0730 – 0830 | <b>Inventory Control Systems</b><br>Objectives and Challenges in Inventory Management • Inventory Types and Classifications • Inventory Accuracy and Stock Reconciliation • Controlling Obsolete and Surplus Materials                 |
| 0830 – 0930 | <b>Spare Parts Forecasting Techniques</b><br>Historical Consumption Analysis • Statistical Forecasting Methods (Moving Average, Exponential Smoothing) • Failure Rate-Based Forecasting • Integration with Predictive Maintenance Data |



|             |                                                                                                                                                                                                                                                                                              |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0930 – 0945 | Break                                                                                                                                                                                                                                                                                        |
| 0945 – 1100 | <b>Warehouse Operations &amp; Layout Design</b><br>Zoning and Layout for Maintenance Spares • FIFO/LIFO Management and Material Handling • Safety Stock and Reorder Point Calculations • Visual Management and 5S Implementation                                                             |
| 1100 – 1215 | <b>Procurement Interface &amp; Supply Chain Coordination</b><br>Requisition-to-Purchase Process Overview • Vendor Selection and Qualification • Coordination Between Planner, Buyer and Storekeeper • Expediting Material Delivery and Follow-Up Techniques                                  |
| 1215 – 1230 | Break                                                                                                                                                                                                                                                                                        |
| 1230 – 1330 | <b>Material Preservation &amp; Storage Practices</b><br>Storage Requirements for Mechanical, Electrical, and Instrumentation Spares • Preservation Techniques for Long-Term Storage • Humidity, Temperature, and Contamination Control • Inspection and Periodic Maintenance of Stored Items |
| 1330 – 1420 | <b>KPIs &amp; Reporting for Inventory Management</b><br>Inventory Turnover Ratio and Service Level • Stockout and Overstock Analysis • Cost of Inventory and Optimization Metrics • KPI Dashboard for Material Unit Supervisors                                                              |
| 1420 – 1430 | <b>Recap</b><br>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                                                                                                      |
| 1430        | Lunch & End of Day Three                                                                                                                                                                                                                                                                     |

**Day 4: Wednesday, 31<sup>st</sup> of December 2025**

|             |                                                                                                                                                                                                                                         |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0730 – 0830 | <b>Reliability-Based Spare Parts Strategy</b><br>MTBF and MTTR Influence on Spare Stock • Risk-Based Inventory Approach • Critical Equipment Material Planning • Using Reliability Data for Procurement Forecasting                     |
| 0830 – 0930 | <b>Failure &amp; Root Cause Analysis for Material Issues</b><br>Common Causes of Material Unavailability • RCA Tools (Fishbone, 5-Why, Pareto) • Case Studies on Spare Parts-Related Failures • Action Planning and Corrective Measures |
| 0930 – 0945 | Break                                                                                                                                                                                                                                   |
| 0945 – 1100 | <b>Maintenance Cost Control &amp; Budgeting</b><br>Cost Breakdown Structure for Maintenance • Budgeting Spare Parts and Consumables • Tracking Material Cost per Work Order • Variance Analysis and Cost Optimization                   |
| 1100 – 1215 | <b>Material Data Integrity &amp; Documentation</b><br>Master Data Governance and Coding Discipline • Duplicate and Obsolete Materials Elimination • Linking Asset Hierarchy to Material Hierarchy • Audit and Traceability of Materials |
| 1215 – 1230 | Break                                                                                                                                                                                                                                   |
| 1230 – 1330 | <b>Vendor Relationship &amp; Performance Evaluation</b><br>Supplier Performance Monitoring and Rating • Framework Agreements for Critical Spares • Vendor-Managed Inventory (VMI) Concepts • Local vs. Global Sourcing Decisions        |



|             |                                                                                                                                                                                                                          |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1330 – 1420 | <b>Continuous Improvement &amp; Lean Practices</b><br>Lean Maintenance Principles • 5S and Kanban in Spare Parts Management • Reducing Waste in Planning and Material Handling • Benchmarking and Best Practices Sharing |
| 1420 – 1430 | <b>Recap</b><br>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                                  |
| 1430        | Lunch & End of Day Four                                                                                                                                                                                                  |

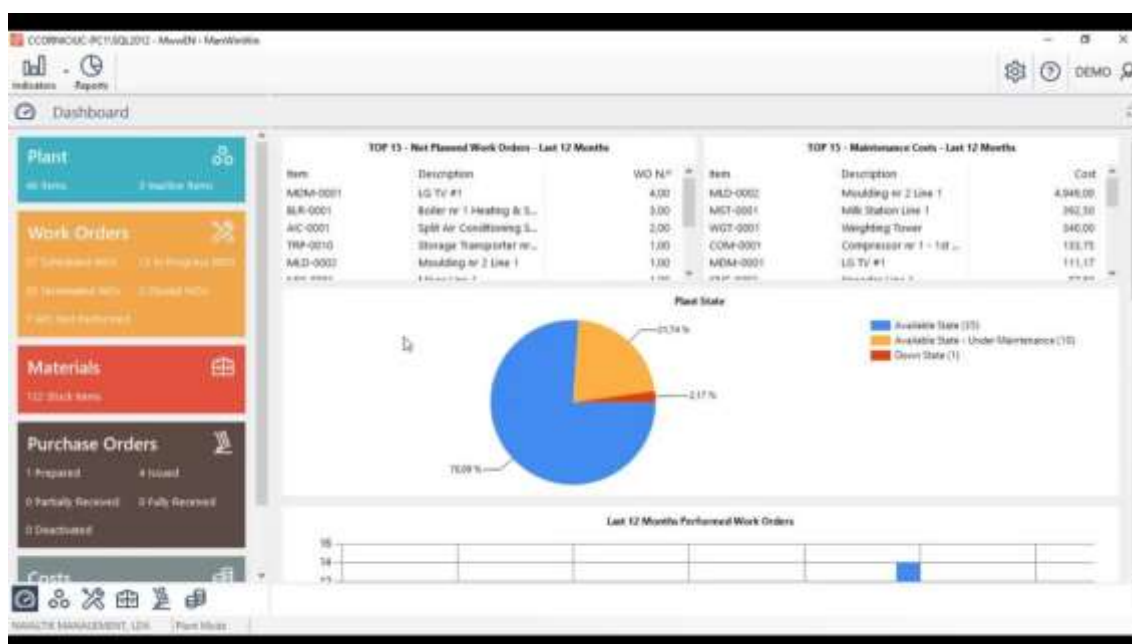
**Day 5: Friday, 01<sup>st</sup> of January 2026**

|             |                                                                                                                                                                                                                                                                                 |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0730 – 0830 | <b>Integrated Maintenance &amp; Material Management Systems</b><br>Linking Planning, Procurement and Warehousing Systems • CMMS Integration with ERP and Financial Systems • Data Analytics and Dashboards for Decision-Making • Case Study: Integrated Planning Implementation |
| 0830 – 0930 | <b>Performance Measurement &amp; Improvement</b><br>KPIs for Planners and Material Supervisors • Tracking Backlog, Service Level, and Turnaround Time • Setting Targets and Continuous Improvement Cycles • Team Performance Reviews                                            |
| 0930 – 0945 | Break                                                                                                                                                                                                                                                                           |
| 0945 – 1100 | <b>Case Study Workshop: Planning &amp; Material Coordination</b><br>Developing a Work Plan with Materials Requirement • Identifying Bottlenecks and Improvement Actions • Role-Based Group Exercise (Planner, Storekeeper, Supervisor) • Presentation and Feedback Session      |
| 1100 – 1215 | <b>Emergency &amp; Breakdown Material Planning</b><br>Handling Urgent Requirements • Fast-Tracking Procurement and Logistic Support • Temporary Replacements and Alternative Materials • Managing Material Traceability During Emergencies                                      |
| 1215 – 1230 | Break                                                                                                                                                                                                                                                                           |
| 1230 – 1345 | <b>Audit, Compliance &amp; Documentation</b><br>Material Audit Types (Internal, External, Compliance) • Record Retention and Documentation Control • Reporting Systems and KPI Dashboards • Role of Material Unit in ISO and Asset Integrity Audits                             |
| 1345 – 1400 | <b>Course Conclusion</b><br>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Covered During the Course                                                                                                                          |
| 1400 – 1415 | <b>POST-TEST</b>                                                                                                                                                                                                                                                                |
| 1415 – 1430 | Presentation of Course Certificates                                                                                                                                                                                                                                             |
| 1430        | Lunch & End of Course                                                                                                                                                                                                                                                           |

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 “MTBF Calculator” and “ManWinWin Express CMMS Software”.



## MTBF Calculator



## ManWinWin Express CMMS Software

### Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: [mari1@haward.org](mailto:mari1@haward.org)