



## COURSE OVERVIEW PM0436-3D Value Engineering and Management

### Course Title

Value Engineering and Management

### Course Date/Venue

June 22-24, 2026/Online Virtual Training

### Course Reference

PM0436-3D

### Course Duration/Credits

Three days/1.65 CEUs/16.5 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 an overview of value engineering. It covers the value engineering (VE), fundamentals of value and function and phases of the value engineering job plan; the cost breakdown techniques, function worth, unnecessary costs and cost-to-function ratios; the VE in financial and infrastructure projects, function analysis system technique (FAST) and in-depth functional analysis; creating fast diagrams for real projects; the creativity in value engineering and creative phase techniques; and evaluating VE ideas and feasibility analysis, risk identification and stakeholder acceptance.



Further, the course will also discuss the application of VE to enhance service value; the customer-centric improvements and banking process optimization; the evaluation phase, lifecycle costing, value indexing and developing phase and recommendations; the proper reporting and documenting in VE and integrating VE into project management; building an effective VE team and facilitating a VE workshop; and the tools and techniques for value engineering.





During this interactive course, participants will learn the VE in procurement and vendor selection, information management, VE databases and software tools for VE planning; measuring VE success and KPIs by value index tracking, implementation metrics, cost avoidance versus savings and time and quality metrics; and the VE in bank-wide initiatives covering process optimization, customer service enhancement, policy review through VE and digital transformation cases.

### **Course Objectives/Outcomes & Benefits for the Participants**

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

- Get a Certificate in Value Engineering from Haward Technology
- Discuss the value engineering (VE), fundamentals of value and function and phases of the value engineering job plan
- Carryout cost breakdown techniques, determine function worth and identify unnecessary costs and cost-to-function ratios
- Apply VE in financial and infrastructure projects, function analysis system technique (FAST) and in-depth functional analysis
- Create fast diagrams for real projects and apply creativity in value engineering and creative phase techniques
- Evaluate VE ideas and apply feasibility analysis, risk identification and stakeholder acceptance
- Apply VE to enhance service value and describe customer-centric improvements and banking process optimization
- Illustrate evaluation phase, lifecycle costing, value indexing and develop phase and recommendations
- Implement proper reporting and documenting in VE and integrate VE into project management
- Build an effective VE team, facilitate a VE workshop and identify tools and techniques for value engineering
- Employ VE in procurement and vendor selection, information management and VE databases and software tools for VE planning
- Measure VE success and KPIs by value index tracking, implementation metrics, cost avoidance versus savings and time and quality metrics
- Implement VE in bank-wide initiatives covering process optimization, customer service enhancement, policy review through VE and digital transformation cases

### **Who Should Attend**

This course provides an overview of all significant aspects and considerations of value engineering for project managers, project engineers, project coordinators, estimation engineers, cost engineers, project accountants as well as those who are responsible for decision-making in projects, engineering, maintenance and contracts departments.





**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 6 hours per day starting at 0800 and ending at 1400
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

**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.

**Learning Design & Customization**

This course can be customized to the exact requirements of clients. Howard Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.





**Course Certificate(s)**

(1) Internationally recognized Competency Certificates 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 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 \* CEUs \* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \*



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



## CEU Official Transcript of Records

**TOR Issuance Date:** 12-Nov-25  
**HTME No.** 74851  
**Participant Name:** Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
PM0436-3D	Value Engineering and Management	Nov 10-12, 2025	16.5	1.65

**Total No. of CEU's Earned as of TOR Issuance Date** **1.65**

**TRUE COPY**  
  
 Jaryl Castillo  
 Academic Director

Haward Technology has been approved as an Accredited 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 1-2018 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 1-2018 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











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\* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \*






**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 **1.65 CEUs** (Continuing Education Units) or **16.5 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\$ 1,875 per Delegate + VAT.**





### 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. Eric Horne, MBA, PMP, PMI-RMP & SMC, HNDPM, NDOWS, T3 (Mech), is a Senior Project Management Consultant with over 35 years of training and industrial experience. His expertise lies extensively in the areas of Projects, Contracts, Operations, Procurement, Production, Finance and Supply Chain Management. Further, Mr. Horne is an expert in Project Management Professional (PMP), Project Risk Management Concepts, Project Management Processes, Project Time Management, Project Cost Management, Project Quality Management, Quality Assurance, Project Human Resource Management, Project Integration Management, Project Management Plan, Project Work Monitoring & Control, Project Scope Management, Project Communications Management, Project Planning, Scheduling & Cost Control Professional, Project Scheduling & Cost Control, Program Management Professional (PgMP), Leadership Management; Communications Management; Interpersonal, Teamwork & Team Management; Adaptability & Learning, Marketing Management; Customer Care Management; Sales & Marketing, Branding, Account Development Strategy & Time Management; Facilitation & Business Presentation Management; Warehouse & Logistics Management; Data & Record Management; Managerial Economics; Marketing Management; Value Engineering; Change Management; Planning, Budgeting & Cost Control; Strategic Thinking, Re-Engineering & Risk Management; Production Planning & Control; and Service Level Agreements (SLA). He is also well-versed in Business Law, Labour Law, Strategy Formulation, Resource Allocation, Continuous Improvement and Productivity Improvement. He is currently the Senior Project Manager of APC Solutions wherein he is responsible for the complete project life cycle including initiating, planning, executing, monitoring & controlling and closing as well as developing and presenting of various trainings within their organization.**

Mr. Horne has worked for many blue-chip companies such as **BHP Billiton, Eskom, Telecast Engineering, Adcorp, 3M** and many more wherein he gained technical and broad experience in all facets of well-renowned large companies in various industries. His work started on the shop floor as an **Industrial Engineer, Senior Work Study Officer, Industrial Engineer, Industrial Sales Engineer, Lecturer, Consultant/Trainer, Project Specialist** and rising up to managerial positions like **Project Governance Development Manager, Senior Project Manager, Project Manager Specialist, Marketing Manager, Sales Manager, National Marketing & Training Manager, Change Manager, Regional Manager and Project & Training Manager.**

Mr. Horne has a **Master** degree in **Business Administration** from the **University of Wales, UK**. Further, he has a **Higher National Diploma in Production Management, a National Diploma in Organisation & Work Study** and a **T3 Mechanical Certificate**. Moreover, he is a **Certified Instructor/Trainer, a Certified PMI-Project Risk Management Professional (PMI-RMP), a Certified Project Management Professional (PMP), a Qualified SETA Assessor, a Certified Scrum Master and a Certified Assessor/Trainer by the Institute of Leadership & Management (ILM)**. He has further delivered numerous trainings, courses, workshops, seminars and conferences worldwide.





**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: Monday, 22<sup>nd</sup> of June 2026**

0800 – 0815	Registration & Coffee
0815 – 0830	Welcome & Introduction
0830 – 0845	<b>PRE-TEST</b>
0845 – 0900	<b>Overview of Value Engineering (VE)</b> Definition of VE • Historical Development • Importance in Cost Optimization • Common Misconceptions
0900 – 0915	<b>Fundamentals of Value &amp; Function</b> Understanding “Value” • Function Analysis Basics • Types of Functions • Cost Versus Worth
0915 – 0930	<b>Phases of the Value Engineering Job Plan</b> Information Phase • Functional Analysis Phase • Creative Phase • Evaluation & Development Phase
0930 – 0945	Break
0945 – 1045	<b>Cost Analysis &amp; Worth Estimation</b> Cost Breakdown Techniques • Determining Function Worth • Identifying Unnecessary Costs • Cost-to-Function Ratios
1045 – 1130	<b>Application of VE in Financial &amp; Infrastructure Projects</b> VE for Banking Facilities • Project Financing Models • Stakeholder Expectations • ROI & Lifecycle Considerations
1130 – 1145	<b>Basics of Function Analysis System Technique (FAST)</b> Purpose of FAST Diagrams • How to Construct a FAST Diagram • Case Study Introduction • Financial Project Application
1145 – 1200	<b>In-Depth Functional Analysis</b> Primary & Secondary Functions • Function Logic & Relationships • Applying the “How-Why” Logic • Practice Exercise
1200 - 1215	Break
1215 - 1300	<b>Creating FAST Diagrams for Real Projects</b> Steps in Developing FAST • Logical Sequencing • Using Software Tools • Reviewing VE Case Studies
1300 - 1330	<b>Creativity in Value Engineering</b> Barriers to Creativity • Divergent Thinking Methods • Brainstorming Techniques • Encouraging Team Innovation
1330 – 1350	<b>Creative Phase Techniques</b> SCAMPER Model • Attribute Listing • Reverse Thinking • Group Creativity Workshops
1350 – 1400	<b>Recap</b> 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
1400	End of Day One



**Day 2: Tuesday, 23<sup>rd</sup> of June 2026**

0800 – 0845	<b>Selecting Best Alternatives</b> <i>Evaluating VE Ideas • Feasibility Analysis • Risk Identification • Stakeholder Acceptance</i>
0845 – 0915	<b>Application to Financial System Improvement</b> <i>VE in IT &amp; Financial Software Projects • Enhancing Service Value • Customer-Centric Improvements • Banking Process Optimization</i>
0915 – 0930	<b>Evaluation Phase Overview</b> <i>Evaluation Criteria • Scoring &amp; Ranking Systems • Risk versus Value Charts • Impact versus Cost Matrix</i>
0930 - 0945	Break
0945 – 1015	<b>Lifecycle Costing &amp; Value Indexing</b> <i>Total Cost of Ownership (TCO) • Net Present Value (NPV) • VE Value Index Formula • Prioritization Matrices</i>
1015 – 1030	<b>Development Phase &amp; Recommendations</b> <i>Developing Proposals • Cost Models • Technical Feasibility Studies • Management Presentation Techniques</i>
1030 – 1045	<b>Reporting &amp; Documentation in VE</b> <i>VE Report Structure • Summary of Alternatives • Functional Matrix • Cost Saving Documentation</i>
1045 – 1100	<b>Integrating VE Into Project Management</b> <i>Linking with Project Stages • PMO &amp; VE Integration • Timeline &amp; Budget Impact • Communication with Stakeholders</i>
1100 - 1215	Break
1215 – 1300	<b>Case Study: VE Applied in Public Infrastructure Finance</b> <i>Real-World Banking Sector Case • Analyzing Decisions • Before versus After Results • Lessons Learned</i>
1300 – 1330	<b>Building an Effective VE Team</b> <i>Roles &amp; Responsibilities • Selecting Team Members • Technical &amp; Creative Balance • Multidisciplinary Integration</i>
1330 – 1350	<b>Facilitating a VE Workshop</b> <i>Stages of Workshop Facilitation • Managing Group Dynamics • Encouraging Contribution • Time Management</i>
1350 – 1400	<b>Recap</b> <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>
1400	End of Day Two

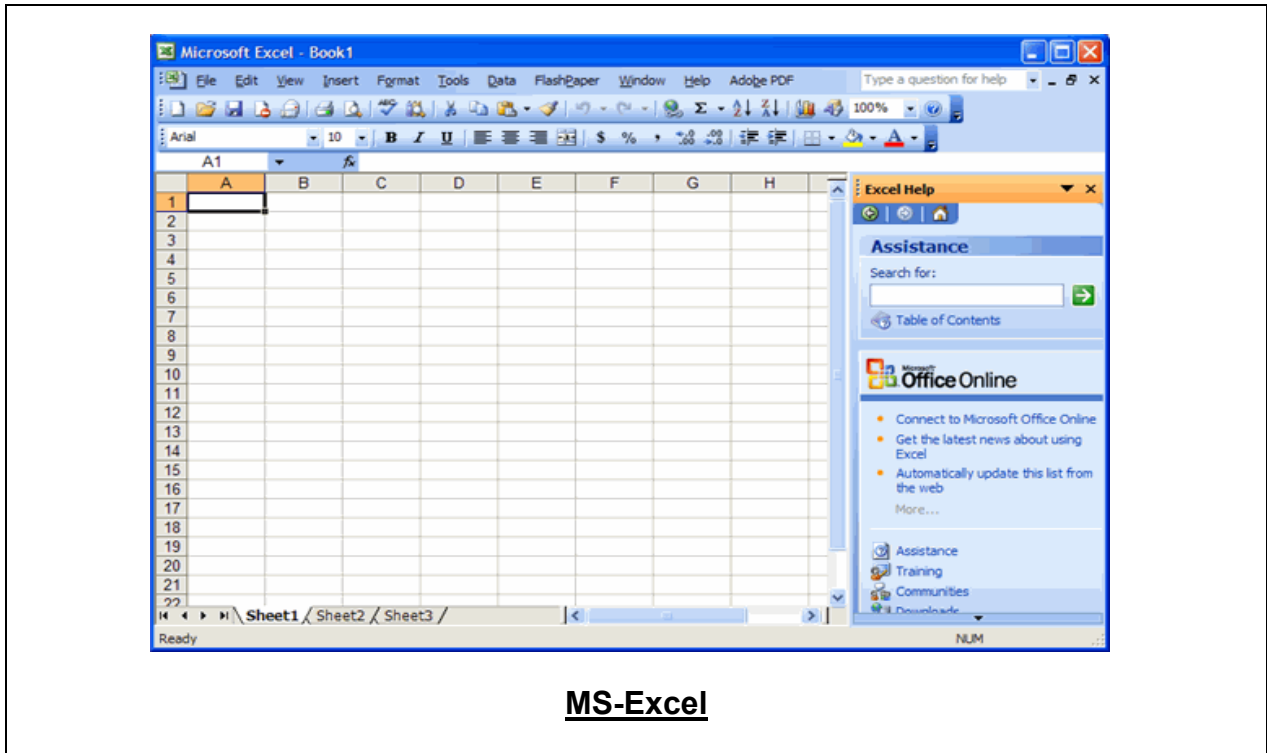
**Day 3: Wednesday, 24<sup>th</sup> of June 2026**

0800 - 0845	<b>Tools &amp; Techniques for Value Engineering</b> <i>Cost-Worth Matrix • Pareto Analysis • SWOT Analysis • Root Cause Analysis</i>
0845 - 0930	<b>VE in Procurement &amp; Vendor Selection</b> <i>Value-Based Procurement • VE in RFP Review • Total Cost versus Initial Cost • Vendor Evaluation</i>
0930 - 0945	Break
0945 – 1100	<b>Information Management &amp; VE Databases</b> <i>Capturing Historical Data • Creating a VE Knowledge Base • Benchmarking • Document Control</i>

1115 – 1130	<b>Software Tools for VE Planning</b> <i>MS Excel for Cost Models • Mind Mapping Tools • VE Templates • Use of Primavera &amp; MS Project in VE Integration</i>
1130 – 1145	<b>Mini VE Project Simulation (Part 1 – Setup)</b> <i>Team Grouping • Project Selection • Information Gathering • FAST Diagram Development</i>
1145 – 1200	<b>Mini VE Project Simulation (Part 2 – Creativity &amp; Evaluation)</b> <i>Brainstorming Session • Idea Evaluation • Cost Analysis • Solution Finalization</i>
1100 - 1215	Break
1215 – 1245	<b>Presentation of VE Proposals</b> <i>Group Presentations • Feedback &amp; Scoring • Financial Impact Review • Functionality Review</i>
1245 – 1300	<b>Measuring VE Success &amp; KPIs</b> <i>Value Index Tracking • Implementation Metrics • Cost Avoidance versus Savings • Time &amp; Quality Metrics</i>
1300 – 1315	<b>Implementing VE in Bank-Wide Initiatives</b> <i>Process Optimization • Customer Service Enhancement • Policy Review through VE • Digital Transformation Cases</i>
1315 – 1330	<b>Course Conclusion</b> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Cou that were Covered During the Course</i>
1330 – 1400	<b>COMPETENCY EXAM</b>
1400	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 “MS-Excel”, “MS Project”, “Primavera P6” and “Mindview” simulators.





The screenshot displays the Primavera P6 software interface. The main window shows a list of activities for the 'Hailang Corporate Park' project. The activities are organized into two main categories: 'Design and Engineer' and 'Found Foundation'. The 'Design and Engineer' category includes activities like 'Assemble Technical Data for Heat Pump', 'Design Building Addition', 'Review and Approve Designs', 'Review Technical Data on Heat Pumps', and 'Start Office Building Addition Project'. The 'Found Foundation' category includes activities like 'Backfill and Compact Walls', 'Begin Building Construction', 'Concrete Foundation Walls', 'Excavation', 'Form and Pour Slab', 'Form/Pour Concrete Footings', 'Foundation Phase Complete', 'Install Underground Electric Conduit', 'Install Underground Water Lines', and 'Site Preparation'. A Gantt chart on the right side of the screen shows the timeline for these activities, with bars representing the duration of each task. The interface also includes a menu bar at the top, a toolbar, and a status bar at the bottom.

Activity ID	Activity Name	Start	Finish	Original Duration	Remaining Duration	Schedule % Complete
EC00501	Hailang Corporate Park	01-Sep-10 A	11-Jan-13	601.6d	432.6d	71.93%
EC00501.D&E	Design and Engineer	01-Sep-10 A	07-Jan-11 A	92.5d	0.0d	100%
EC1050	Assemble Technical Data for Heat Pump	06-Dec-10 A	15-Dec-10 A	6.3d	0.0d	100%
EC1000	Design Building Addition	01-Sep-10 A	08-Nov-10 A	48.3d	0.0d	100%
EC1030	Review and Approve Designs	08-Nov-10 A	03-Dec-10 A	18.5d	0.0d	100%
EC1150	Review Technical Data on Heat Pumps	13-Dec-10 A	07-Jan-11 A	21.0d	0.0d	100%
EC1010	Start Office Building Addition Project	01-Sep-10 A		0.0d	0.0d	100%
EC00501.Found	Found Foundation	03-Dec-10 A	03-Jun-11	127.0d	23.2d	76.3%
EC1270	Backfill and Compact Walls	27-May-11	03-Jun-11	4.2d	4.2d	0%
EC1090	Begin Building Construction	03-Dec-10 A		0.0d	0.0d	100%
EC1350	Concrete Foundation Walls	15-Apr-11 A	12-May-11	21.0d	8.5d	73.81%
EC1230	Excavation	26-Jan-11 A	24-Feb-11 A	21.0d	0.0d	100%
EC1300	Form and Pour Slab	12-May-11	27-May-11	10.5d	10.5d	0%
EC1340	Form/Pour Concrete Footings	11-Mar-11 A	11-Apr-11 A	21.0d	0.0d	100%
EC1300	Foundation Phase Complete		03-Jun-11	0.0d	0.0d	0%
EC1320	Install Underground Electric Conduit	17-Feb-11 A	25-Feb-11 A	10.5d	0.0d	100%
EC1320	Install Underground Water Lines	22-Feb-11 A	20-Feb-11 A	10.5d	0.0d	100%
EC1310	Site Preparation	03-Dec-10 A	24-Jan-11 A	37.5d	0.0d	100%

Primavera P6



Mind map

Word

**Mindview Software**

**Course Coordinator**

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