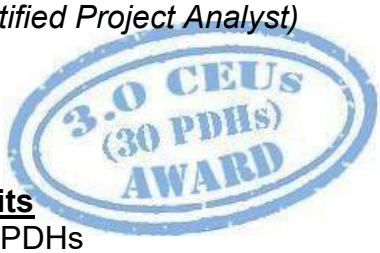
COURSE OVERVIEW PM0390

Project Analysis

Tools & Techniques for Managing Risk & Uncertainty (Certified Project Analyst)

Course Title

Project Analysis: *Tools & Techniques for Managing Risk & Uncertainty (Certified Project Analyst)*



Course Reference

PM0390

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Date/Venue

Sessions	Date	Venue
1	April 12-16, 2026	Crowne Meeting Room, Crowne Plaza Al Khobar, an IHG Hotel, Al Khobar, KSA
2	October 18-22, 2026	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE

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 Certified Project Analyst: Tools and Techniques for Managing Project Risk and Uncertainty. It covers the decision analysis and project profitability; the decision opportunities and alternatives, decision model and valuation model; the expected value for each alternative and best alternative decision; measuring project profitability, time value of money, rate of return and the cost of capital; and the time value of money concept, net present value and internal rate of return (IRR).

During this interactive course, participants will learn the incremental analysis and re-investment assumption in IRR; the cost of capital computations and expected return measurement of risk; the advantages and limitations of benefit-cost ratio; the cash-flow modeling and project decision analysis; the cash counts, financial modeling, project evaluation and decision analysis; the basic probability concepts, Venn diagrams, Boolean algebra and key probability theorems; the complement rule, addition rule, multiplication rule, independence, Bayes' rule and thinking logically; the decision analysis, sensitivity analysis, variable interactions, dynamic simulation models; and the three simple rules for solving a tree.

Course Objectives

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

- Get certified as a *"Certified Project Analyst"*
- Discuss decision analysis and project profitability including ten steps toward better decisions
- Identify decision opportunities and alternatives as well as develop the decision model and valuation model
- Calculate expected value for each alternative, rethink the problem, implement the best alternative and apply post-analyze the decision
- Measure project profitability and explain time value of money, rate of return and the cost of capital
- Apply time value of money concept, net present value and internal rate of return (IRR)
- Carryout incremental analysis, use IRR to analyze options and re-investment assumption in IRR
- Recognize cost of capital computations and expected return measurement of risk
- Discuss the advantages and limitations of benefit-cost ratio as well as illustrate cash-flow modeling and project decision analysis
- Apply cash counts, financial modeling, project evaluation and decision analysis
- Calculate expected value and apply financial project risk through addressing uncertainty and assessing sensitivity
- Discuss the basic probability concepts, Venn diagrams, Boolean algebra and key probability theorems
- Explain complement rule, addition rule, multiplication rule, independence, Bayes' rule and thinking logically
- Apply decision analysis, sensitivity analysis, variable interactions, dynamic simulation models and the three simple rules for solving a tree

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 project analysis for program and project professionals, project leaders, project engineers, cost engineers, and other senior project control and business services professionals who are responsible for or involved in evaluating projects and managing cash flow on projects.

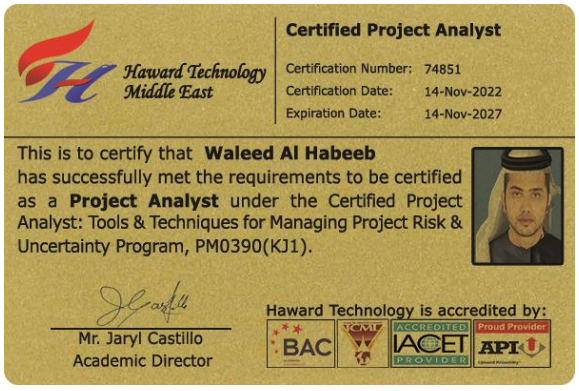
Course Certificate(s)

(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. 74851

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
PM0390(KJ1)	Certified Project Analyst: Tools & Techniques for Managing Project Risk & Uncertainty	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

Certificates are accredited by the following international accreditation organizations:-

- 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.

- 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 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. Mohamed Khamis, BSc, PMI-PMP, is a **Senior Management Consultant** with extensive experience within the areas of **Business Agility**, **Performance Appraisal**, **Strategic** Management, **Reports Preparation**, **Job Description Preparation & Evaluation** Skills, **Quality** Management, **Project** Management**, Strategic Talent** Management, **People** Management, **Information** Management, **Project & Construction** Management, **Change** Management, **Customer** Satisfaction Management, **Office** Management & Administration, **Data Quality** Management, **Interpersonal** Skills, **Leadership & Mentoring**, **Time** Management, **Performance** Management, **Strategic Planning & Analysis**, **Communication & Reporting** Skills, **Budgeting & Project Scheduling**, **Risk** Management, Project Planning & Cost Control, Project Execution, Project Organizing, Project Management Tools & Techniques, Project Leadership & Communications, Project & Construction Management, Project Supervisor, Project Life Cycle, Managing Multiple Projects, Mastering Complex Projects, Project Cost Estimation, Project Risk Analysis, Project Scheduling and Project Engineering. Further, he is also well-versed in **Maintenance & Reliability** Management, **Rotating Equipment, Maintenance Planning** and **Scheduling & Work Control**. He is currently the **Senior Mechanical Field Service Engineer/Gas Turbine Shift Leader/Site Leader** of **Siemens** wherein he is responsible in handling highly skilled service specialist for enhancing the quality of services, managing continuous improvement of field services activities and ensures that all activities are accomplished in the safest and most effective manner.

During his career life, Mr. Mohamed has gained his practical and field experience through his various significant positions and dedication as the **Acting Site Manager**, **Construction Mechanical Engineer**, **Rotor Specialist/Level-3 Trainer**, **Mechanical Commissioning & Start Up Engineer**, **Shift Operation Engineer**, **Mechanical Maintenance Engineer** and **Senior Instructor/Trainer** for various companies such as the West Delta Company, ALTOUKHI Company (KSA) and PGESCO Consultant.

Mr. Mohamed has a **Bachelor's** degree in **Mechanical Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified Project Management Professional** (**PMI-PMP**) and has delivered various trainings, seminars, conferences, workshops and courses 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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Decision Analysis & Project Profitability*** *Decision Problems ● PM Decision Analysis ● Ten Steps Toward Better Decisions*
0930 – 0945	*Break*
0945 – 1100	***Decision Analysis & Project Profitability (cont'd)*** *Proactively Identify Decision Opportunities ● Define the Problem ● Identify Alternatives ● Develop the Decision Model*
1100 – 1230	***Decision Analysis & Project Profitability (cont'd)*** *Quantify Judgments about Uncertainty ● Develop the Valuation Model ● Calculate Expected Value for Each Alternative ● Rethink the Problem*
1230 – 1245	*Break*
1245 - 1420	***Decision Analysis & Project Profitability (cont'd)*** *Implement the Best Alternative ● Post-Analyze the Decision ● Measures of Project Profitability ● Time Value of Money*
1420 - 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0900	***Internal Rate of Return (IRR)*** *Rate of Return & the Cost of Capital ● Applying the Time Value of Money Concept ● Net Present Value*
0900 – 0915	*Break*
0915 – 1100	***Internal Rate of Return (IRR) (cont'd)*** *Applying NPV ● Internal Rate of Return ● Rate of Return Computations (IRR) ● Rate of Return in the Single Period Case*
1100 – 1230	***Internal Rate of Return (IRR) (cont'd)*** *Determining the Internal Rate of Return (IRR) ● IRR for a Single Project ● Incremental Analysis ● Non-Standard Cash Flows & Multiple IRRS*
1230 – 1245	*Break*
1245 – 1420	***Internal Rate of Return (IRR) (cont'd)*** *Using IRR to Analyze Options with Different Lives ● Re-Investment Assumption in IRR ● Cost of Capital Computations ● Risk, Cost of Capital & Expected Return Measurement of Risk*
1420 - 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0900	***Benefit-Cost Ratio (BCR)*** *Example of the Benefit-Cost Ratio ● Interpreting the Benefit-Cost Ratio*
0900 – 0915	*Break*
0915 – 1100	***Benefit-Cost Ratio (BCR) (cont'd)*** *Advantages of the Benefit-Cost Ratio ● Key advantages of the Benefit-Cost Ratio*

1100 – 1230	***Benefit-Cost Ratio (BCR) (cont'd)*** *Limitations of the Benefit-Cost Ratio*
1230 – 1245	*Break*
1245 – 1420	***Benefit-Cost Ratio (BCR) (cont'd)*** *Key Limitations of The Benefit-Cost Ratio*
1420 - 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

0730 – 0900	***Cash-Flow Modeling & Project Decision Analysis*** *Deterministic Cashflow Models ● Cash Counts ● Problem & Model Scope ● Financial Modeling & Project Evaluation ● Typical Components of a Financial Model ● Typical Inputs ● The Nine Standard Worksheets*
0900 – 0915	*Break*
0915 – 1100	***Cash-Flow Modeling & Project Decision Analysis (cont'd)*** *Arrangement of Standard/Other Worksheets ● Decision Analysis: Expected Value Concept ● Expected Value ● Converts to a Single Value ● Calculating Expected Value*
1100 – 1230	***Financial Project Risk*** *Addressing Uncertainty ● Assessing Sensitivity ● Basic Probability Concepts ● Venn Diagrams & Boolean Algebra ● Key Probability Theorems*
1230 – 1245	*Break*
1245 – 1420	***Financial Project Risk (cont'd)*** *Complement Rule ● Addition Rule ● Multiplication Rule ● Independence ● Bayes' Rule ● Thinking Logically*
1420 - 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

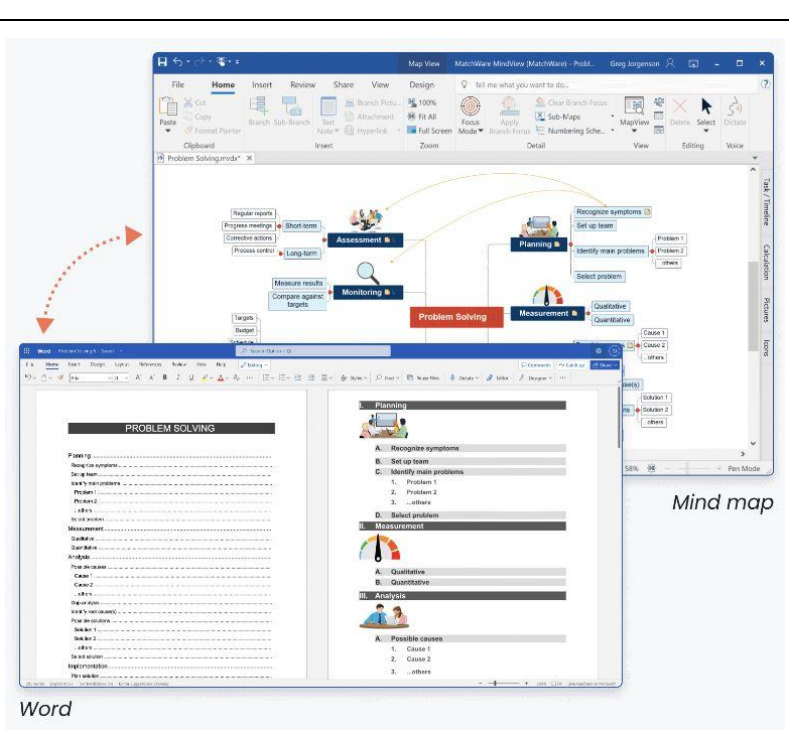
0730 – 0900	***Decision Analysis: Decision Trees, Sensitivity Analysis & Simulation*** ***Decision Trees*** *Sensitivity Analysis ● The Real Purposes of Sensitivity Analysis ● Sensitivity to Individual Inputs ● Variable Interactions*
0900 – 0915	*Break*
0915 – 1030	***Decision Analysis: Decision Trees, Sensitivity Analysis & Simulation*** ***Decision Trees (cont'd)*** *Dynamic Simulation Models ● Decision Tree Analysis ● Node Types ● Three Types of Nodes in a Decision Tree*
1030 – 1130	***Decision Analysis: Decision Trees, Sensitivity Analysis & Simulation*** ***Decision Trees (cont'd)*** *Tree Annotations ● Tree Calculations ● The Three Simple Rules for Solving a Tree*
1130 – 1145	*Break*
1145 - 1300	***Case Study*** *Wastewater Plant Example ● Data Assumptions ● Three Plant Alternatives are Being Considered ● Try Your Intuition ● Evaluating Options*
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 “MS Project” and “Mindview Software”.

Microsoft Office Project

Enterprise Project Management Solution



Mindview Software

Course Coordinator

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