COURSE OVERVIEW SS0210
Problem Solving & Decision Making

Course Title
Problem Solving & Decision Making

Course Date/Venue
Session 1: May 04-08, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar
Session 2: October 05-09, 2025/Meeting Plus 8, City Centre Rotana Doha Hotel, Doha, Qatar

Course Reference
SS0210

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

Course Description

80% of this course is practical sessions where participants will be engaged in a series of interactive small groups, class workshops and role-plays.

The course participants will be introduced to the concepts and principles associated with problem solving and decision-making in general and the application of creativity as a tool in particular.

The course attendees will know their applications in real-life situations. The course themes will highlight the main aspects of problem quantification, demarcation and classification, and address decision- making tools and techniques. The course attendees will be trained to understand creativity as an application tool and practice its use in problem solving and decision making in their work environment and day-to day life affairs. The course will further bring to light associated factors, which diversely or positively influence the decision-making strategies in terms of process, time, resource allocation, opportunity capture, technology and synergy. The course will attempt to enhance the know - how of participants through benchmarking analogies drawn from best-practice cases from the local and regional scenes relating to some decision-making aspects such as paradigm analysis, process mapping, mind maps, benchmarking, statistics and risk analysis techniques, etc.

The course will present an overview of the decision-making process from the data gathering and analysis, to structure and functionality, down to strategic and corporate techniques and tools. The course participants will learn the application of the concept of decision costing, and the value of knowledge management as key and critical prerequisites of efficient problem solving.

The delivery approach will adopt various tools and techniques that will enhance learning and ensure the transfer of expertise from the classroom to the job environment. The approach will employ interaction, participation, case studies, exercises, videos, role-plays, real-life situations, quizzes, discussions, etc. to bring the learning points home, and ascertain that learning and not teaching have taken place.

Course Objectives

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

- Apply and gain a comprehensive knowledge problem solving and decision making skills for engineers and technical professionals
- Carryout techniques of recognizing problems and information analysis
- Identify the difference between causes and symptoms
- Recognize problem analysis tools, decision making tools and people problems and solutions
- Implement proper analysis and solution of real life problems
- Employ various application of problems solving and decision making skills at work
- Recognize the origin and definition of creativity and identify its components
- Identify, define and analyze problem demarcation
- Explain problem categorization and the competence analog
- Classify problems as to cognitive, behavioral and material
- Apply creativity in real-life problem situations
- Employ the different problem solving strategies
- Use the various decision making tools and techniques
- Describe the influence and role of technology in problem solving and decision making
- Determine the cost of decision making
- Make an effective personal implementation plan

Who Should Attend

This course provides an overview of all significant aspects and considerations of problem solving and decision making skills for engineers and technical professionals, managers at all levels, from supervisors and middle managers to top executives. The course will be of value and benefit to employees and support staff who participate substantially and who are involved in creative problem analysis and sound decision-making.

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**.*

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

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 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. Steve Magalios (**Stylianos Sotirios Magalios**), CEng, PGDip (on-going), MSc, BSc, is a **Survey & Pipeline Engineer** with over **40 years** of extensive **On-shore/Offshore** experience in the **Oil & Gas**, **Construction**, **Refinery** and **Petrochemical** industries. His expertise widely covers in the areas of **Road** Construction & Maintenance, **Road Construction** Materials, Construction Technologies & **Pavement** Rehabilitation, **Drainage** System, **ArcGIS**, **Spatial Analysis & Modeling**, Geographical Information System (**GIS**), Computer Aided Design (**CAD**), **Building & Road** Design Skills, **Civil Engineering Design**, **Structural Reliability** Engineering, **Concrete Structures & Building Rehabilitation**, **Reinforced Concrete Structures Protection**, **Geosynthetics & Ground Improvement Methods**, **Blueprint** Reading & Interpretation, **Blue Print** Documentation, Mechanical **Drawings**, **P&ID**, **Flow Diagram** Symbols, **Land Surveying** & Property Evaluation, **Cartographic** Representation, Soil Classification, **Cadastral Surveying** & Boundary Definition, **Project Engineering** & Design, **Construction** Management, **Project Planning** & Execution, **Site Management**, **Site Supervision**, Effective **Resource Management**, **Project Evaluation**, **FEED** Management, **EPC Projects** Design, **Project Completion & Workover**, Quality Control and Team Management. He is also well-versed in Lean & Sour Gas, Condensate, **Compressors**, **Pumps**, Flare Knockout Drum, Block **Valve** Stations, New Slug Catcher, Natural **Gas Pipeline** & Network, Scraper Traps, Burn Pits, Risk Assessment, HSE Plan & Procedures, Quality Plan & Procedures, Safety & Compliance Management, Permit-to-Work Issuer, ASME, API, ANSI, ASTM, BS, NACE, ARAMCO & KOC Standards, MS Office tools, **AutoCAD**, **STAAD-PRO**, Autodesk Map and various programming languages such as FORTRAN, BASIC and AUTOLISP. Currently, he is the **Chartered Professional Surveyor Engineer & Urban-Regional Planner** wherein he is deeply involved in providing exact data, measurements and determining properly boundaries. He is also responsible in preparing and maintaining sketches, maps, reports and legal description of surveys.

During his career, Mr. Magalios has gained his expertise and thorough practical experience through challenging positions such as a **Project Site Construction Manager**, **Construction Site Manager**, **Project Manager**, **Deputy PMS Manager**, **Head of the Public Project Inspection Field Team**, **Technical Consultant**, **Senior Consultant**, **Consultant/Lecturer**, **Construction Team Leader**, **Lead Pipeline Engineer**, **Project Construction Lead Supervising Engineer**, **Lead Site Engineer**, **Senior Site Engineer Lead Engineer**, **Senior Site Engineer**, **R.O.W. Coordinator**, **Site Representative**, **Supervision Head** and **Contractor** for international Companies such as the Penspen International Limited, Eptista Servicios de Ingeneria S.I., J/V ILF Pantec TH. Papaioannou & Co. – Emenergy Engineering, J/V Karaylannis S.A. – Intracom Constructions S.A., Ergaz Ltd., Alkyonis 7, Palaeo Faliro, Piraeus, Elpet Valkaniki S.A., Asprofos S.A., J/V Depa S.A. just to name a few.

Mr. Magalios is a **Registered Chartered Engineer** and has **Master** and **Bachelor** degrees in **Surveying Engineering** from the **University of New Brunswick**, **Canada** and the **National Technical University of Athens**, **Greece**, respectively. Further, he is currently enrolled for **Post-graduate** in **Quality Assurance** from the **Hellenic Open University**, **Greece**. He has further obtained a Level 4B Certificates in Project Management from the National & Kapodistrian University of Athens, Greece and Environmental Auditing from the Environmental Auditors Registration Association (EARA). Moreover, he is a **Certified Instructor/Trainer**, a **Chartered Engineer** of Technical Chamber of Greece and has delivered numerous trainings, workshops, seminars, courses and conferences internationally.

Course Fee

US$ 6,000 per Delegate. 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.

Training Methodology

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:-

20% Lectures
80% Practical Exercises, Case Studies, Games, Customized Videos, Site Visits, Simulations, Role Play, Group Skill Sessions, Outdoor & Indoor Activities

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	***The Nature of Creativity*** *Origins • Definitions*
0930 – 0945	*Break*
0945 – 1100	***The Nature of Creativity (cont'd)*** *Components*
1100 – 1230	***Problem Demarcation*** *Problem Identification • Techniques of Recognizing Problems*
1230 – 1245	*Break*
1245 - 1420	***Problem Demarcation (cont'd)*** *Problem Definition • Problem Analysis • Information Analysis • Problem Analysis Tools*
1420 - 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0930	***Problem Categorization- The Competence Analogy*** *Difference between Cause & Symptoms • Decisions in an Unstable Environment*
0930 – 0945	*Break*
0945 – 1100	***Problem Solving***
1100 – 1230	***Problem Solving (cont'd)***

1230 – 1245	*Break*
1245 - 1420	***Problem Classification: Cognitive, Behavioral, Material***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0930	***Creativity Applications in Real-Life Problem Situations*** *Paradigm Shift • Industry • Learning and Intelligence • Society Emotional Intelligence • People Problems & Solutions • Analysis & Solution of Real Life Problems*
0930 – 0945	*Break*
0945 – 1100	***Decision Making*** *Environment • Time*
1100 – 1230	***Decision Making (cont'd)*** *Resources: Human, Financial and Material • The Value of Ethics • Problems Solving & Decision Making Skills at Work*
1230 – 1245	*Break*
1245 - 1420	***Decision Making Tools & Techniques*** *Data and Information: Gathering, Classifying and Analyzing • Knowledge*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

0730 – 0930	***Decision Making Tools & Techniques (cont'd)*** *Management • Benchmarking • Mind Maps and Process Map • Statistics*
0930 – 0945	*Break*
0945 – 1100	***The Influence & Role of Technology***
1100 – 1230	***The Cost of Decision Making*** *Tangibles • Intangibles • Individual, Social and Global*
1230 – 1245	*Break*
1245 - 1420	***The Cost of Decision Making (cont'd)*** *Corporate and Centre • Strategic versus Operational*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***A Total Review of Course Themes***
0930 – 0945	*Break*
0945 – 1100	***Summary of Learning Points***
1100 – 1230	***Summary of Learning Points (cont'd)***
1230 – 1245	*Break*
1245 – 1345	***The Personal Implementation Plan***
1345 - 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

80% of this highly-interactive course is practical sessions. Theory learnt (20%) will be applied using various role-plays, case studies and practical sessions.

Course Coordinator

Reem Dergham, Tel: +974 4423 1327, Email: reem@haward.org