

Decision Analysis for Operation and Maintenance
Professionals

Barcelona (Spain)

2 - 6 December 2024

UK Traininig

PARTNER



Decision Analysis for Operation and Maintenance Professionals

Code: OG28 From: 2 - 6 December 2024 City: Barcelona (Spain) Fees: 5100 Pound

Introduction

This program examines lean thinking and techniques for decision analysis with emphasis on the lean approach and responsiveness to the customer requirements. Decision-making is the most central human activity, intrinsic in our biology, and done both consciously and unconsciously. We need it to survive. Taking a decision is not just a question of selecting the best alternative. Often one needs to prioritize all the alternatives for resource allocation among a portfolio of option, or to examine the effect of changes introduced to initial judgments.

Course Objectives

- Improve productivity through the use of better, timelier information.
- Understand how world-class organizations solve common asset management problems.
- Optimize planning and scheduling resources.
- Carry out optimized failure analyses.
- Optimize asset management budgets by the avoidance of unplanned equipment failures in service.
- Develop a practical approach of an action plan to utilize these technologies in their areas of responsibility, fitting them into the overall strategy, and measuring benefits.

Course Outlines

Day 1: Introduction to Decision Making

- Scope and significance of Decisions.
- The Decision Making Process.
- Choosing Between Options by Projecting Likely Outcomes.
- Decision Tree Analysis: decision models; low probability, high-consequence events; valuing additional information and control.
- Monte Carlo Simulation: optimization; advantages and limitations.

Implementing Multiple Criteria Decision Analysis

- Definition of Decision Analysis.
- How, and Why, Bad Decisions are Made.
- Problems with Traditional Methods.
- Guidelines for Good Decision Analysis.

Day 2: The Analytic Hierarchy Process AHP

- What is AHP?
- The Comparative Matrix.



- Consistency Analysis.
- Sensitivity Analysis.
- Benefit/Cost Analysis.
- Resources Allocation.
- Applications of the AHP The Concorde Case, Maintenance Strategy, Highway planning.

Risk Management through Failure Mode & Effect Analysis FMEA

- Risk Mitigation.
- Fault Tree analysis.
- Risk Priority Number.
- The Criticality Matrix.
- Equipment Criticality Grading.
- Cases from Oil and Gas Industry and others.
- Modelling Reliability of Systems.
- Series and Parallel Systems.
- The Redundancy Concept.
- Types of Redundancy.
- When to Use Redundancy.

Day 3: MRP and ERP Systems

- What is ERP and how did it develop.
- What is MRP System.
- What is MRPII System.
- Planning and Control.
- The Bill of Materials.
- Master Production Schedule.
- Scope of Decisions.

Optimum Performance Measure

- Challenges of Performance Measures.
- Performance Measures as a Continuous Improvement Process.
- Desirable Features in Maintenance Performance Measures.
- Best and Worst Practices in Performance Measures.

Day 4: The Overall Equipment Effectiveness as a Source of Best Practice in Maintenance

- Advantages of OEE as an Improvement Programme.
- Lean Maintenance through the Use of OEE.
- Analysis of the Six-Big Losses.

The House of Quality

- Basics of design evaluation.
- How to convert the voice of the customer to engineering solutions for a better design.
- Apply the concept of House of Quality in practical cases.

Day 5: Decision Analysis for Optimisation of Maintenance Activities



- How to get the most of your CMMS?
- Benefits that can result from CMMS.
- Optimum Decisions for Maintenance Policies.
- Unmet needs in Responsive Maintenance.
- Key Features of Next Generation Maintenance Systems.
- How to transform Data to Decisions.



Blackbird Training Cities

Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Anney (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)
(Netherlands)



Podgorica (Montenegro)



Batumi (Georgia)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



Blackbird Training Cities

USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

Africa



Baku (Azerbaijan)
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney (Australia)



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City (Kuwait)



Pulau Ujong (Singapore)



Jakarta (Indonesia)



Amman (Jordan)



Beirut (Lebanon)



Blackbird Training Cities

Asia



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



Blackbird Training Clients



UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training



BLACKBIRD
FOR TRAINING



International House 185 Tower Bridge
Road London SE1 2UF United Kingdom



+44 7401 1773 35
+44 7480 775526



Sales@blackbird-training.com



www.blackbird-training.com

UK Training

PARTNER

