

DECISION OPTIMIZATION PROBLEM-SOLVING PUBLIC WORKSHOP

Learn how to make the best choices in optimizing performance measures (e.g. minimize cost, maximize profit) within boundary conditions (e.g. resources constraints) using advanced analytical methods and mathematical software called solvers.

INTRODUCTION

Decision Optimization sits on top of Analytics Evolution and is called Prescriptive Analytics. It recommends one or more courses of action and showing the likely outcome of each decision so that the business decision-maker can take this information and act. It uses advanced analytical methods from Operations Research (OR) / Management Science (MS) / Decision Science for quantitative decision making to help make better decisions.

This workshop is designed for participants who have attended the 3-day Decision Optimization workshop but would like to learn further by bringing their organization's complex real-world business decision-making problems and solve it hands-on during this workshop.

PROGRAM OBJECTIVES

Upon a successful completion of this course, participants will be able to formulate complex real-world business decision-making problems as optimization problems and solve it with solvers. They can then bring back and apply the techniques learnt to their respective organization.

WORKSHOP METHOD

It is conducted in a seminar room and consists of the following:

- Instructor-guided hands-on sessions on how to solve selected real-world business decision-making problems using Microsoft Excel Solver, OpenSolver, and IBM ILOG CPLEX Optimization Studio Community Edition.
- Instructor-guided hands-on sessions on how to write the mathematical formulations for the selected real-world business decision-making problems. This includes definition of decision variables and constraints and the use of mathematical symbols.

The business problem will be selected and provided to the instructor at least a week before the workshop start date. This is to allow the instructor to have sufficient time to research and develop the correct methods to solve the selected problems. Examples of business problems to be solved in the workshop include stochastic price optimization and multi-period capacity modelling. The number of problems to be solved will be limited to the duration of the workshop. The instructor will attempt to distribute time fairly to all participants.

It is the responsibility of the participants to select business problems with data which are suitable to be shared with participants from different organizations. To protect organization's intellectual property, please avoid using real product names, suppliers' names, and acronyms only understood by specific organization. Instead, replace the original names with simple alphanumeric representation of the real thing.

Please get vetting from your superior before sharing business problems of your organization.

WHO SHOULD ATTEND

Managers and executives who are involved in what-if analyses and recommendations / decision making of investment, pricing and revenue management, portfolio management, risk analysis, strategic planning, facility site location, production planning and scheduling, resource allocation, assets optimization, cost reduction, etc.

PRE-REQUISITES

- Have attended the 3-day Decision Optimization seminar offered by the same instructor
- Familiar with Microsoft Excel spreadsheet modelling
- Have experience with what-if scenario analyses to support management decision making

MINIMUM & MAXIMUM PARTICIPANTS

For cost reasons, the workshop can only be conducted with at least 6 participants.

Due to highly interactive nature of this workshop, the maximum number of participants allowed is 10 persons.

DURATION

2 days (9:00 am – 5:00 pm); can be tailored to participants' needs if longer workshop is required

VENUE & DATE

Vistana Hotel, Penang.

23rd – 24th March, 2018

WORKSHOP FEES

RM3,000 person for 2-day workshop which includes 2 coffee/tea breaks and lunch per day.

Participants will pay hotel accommodation costs directly to the hotel.

Parking rate is RM3 per day per car per exit.

PAYMENT

Workshop fees are due upon registration on the first day of workshop.

CONFIRMATION

Attendance to the workshop must be confirmed at least 3 weeks before the workshop start date.

TRAINER'S PROFILE



Dr. Anwar Ali has 27 years' experience in semiconductor industry, 2 years at Texas Instruments followed by 25 years at Intel Technology Sdn Bhd. He was a Principal Engineer for his last 5 years at Intel. He practised Operations Research (discrete event simulation and mathematical optimization) for 13 years. His areas of expertise include high fidelity equipment simulation modelling, factory capacity modelling and optimization, and the relevant enterprise data integration involved.

Dr. Anwar Ali completed his B.Eng. in Mechanical Engineering (Industrial Engineering major) from Universiti Teknologi Malaysia (UTM) in 1988, M.Sc. in Decision Science from Universiti Utara Malaysia (UUM) in 2005, and Doctor of Engineering in Engineering Business Management from UTM in 2014.

Organized by:



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