

10%
off for
3 participants and more
19-20 April, 2012 Shanghai

Rapidly Improving Processes, Product
Development and Solving Complex Problems

Advanced Functional Analysis and Creativity

19-20 April, 2012 Shanghai

Benefits of Attending

- ✓ **Adopt** New knowledge of function analysis
- ✓ **Ability** to further enhance insight in "Big Picture" of the Project
- ✓ **Improved** further understanding of how function analysis works
- ✓ **Improved** understanding of how to perform Function Analysis System Technique (FAST Diagrams)
- ✓ **Learn** how to facilitate function analysis and FAST diagrams
- ✓ **Prepare** a FAST diagram & develop the product concept in conjunction with the QFD concept selection matrix
- ✓ **Dimension** the system in the FAST diagram into assemblies/parts or identify the assemblies/parts needed to perform the given function.
- ✓ **Boost** new creativity techniques & optimize collective learning
- ✓ **Learn** how and when to apply the various creativity techniques

Who Should Attend

- VA/VE practitioners that want to be better prepared to lead others in this methodology. The techniques taught will help practitioners to become better facilitators. Leading others in function analysis takes constant training and practice. This seminar will greatly assist anyone that is working with others to facilitate any VA/VE activity.



Registration Today!

Organised by



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Mr. Jim Rains
President
Advanced Value
Group

- Facilitated over 750 teams in value analysis, value engineering, tear down and/or lean concepts. Jim is the author of the new book *Target Cost Management: The Ladder to Global Survival and Success*. He has published numerous articles in publications around the globe, and has published papers in the Canada, China, Hungary, Japan, Mexico and the United States. He has conducted workshops and seminars in Austria, Australia, China, England, France, Germany, Hong Kong, Korea, Kuwait, Mexico, Qatar, Sweden, United Arab Emirates, and the United States.
- After having study the target costing concept (in the USA and Japan), for over twelve years Mr. Rains has developed a two-day target costing seminar that introduces this concept. After being fully trained by Mr. Yoshihiko Sato in the Japanese method
- s a Life Member of SAVE International (IIE).
- Received a Presidential Citation Award from the Society of Japanese Value Engineering in Tokyo in 2001. This award is presented to only those persons who have promoted international cooperation in value engineering, especially with Japanese practitioners.
- Has been recognized in Hungary for outstanding VE activity and endorsed Hungary's first VE book translated into English.
- Earned the "Excellence in Value Engineering Award" from SAVE International for Delco Products (Division of General Motors) in 1991.
- Served as the Chairperson of the General Motors Corporate Value Management Committee.
- Served as an Administrator of the SAVE International Certification Board

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Course Overview

To become an expert in value analysis and value engineering one must also become an expert in function analysis and creativity. To be honest to properly perform function analysis takes considerable training and practice. It takes many years to become a real expert in properly using and applying function oriented thinking to the vast array of potential projects one may encounter. Function analysis when properly applied fully defines the problem to be solved. It creates a common understanding of that problem amongst all team members involved with the project. Without a fully defined and understood problem it is possible that the problem will not be solved properly and cause much wasted effort with constant fixes in the future.

Once the problem is fully defined, then it is important to utilize proper creativity techniques to solve the problem. Too many people stop at the first good idea. This is not the best way to solve problems. It is much better to have many ideas that will work and then determine which alternative is the best.

In this Feb, 2012, we will invite the guru in the aspect of VAVE consulting---Jim Rains again with a new designed 2-day-masterclass. "Advanced Functional Analysis and Creativity". This seminar will go into ADVANCED function analysis and creativity techniques so that the participants will be better prepared to utilize value analysis and value engineering to achieve improved results. Also, the seminar will review the use of function analysis to define the objectives of a product, project or service. In doing so, unnecessary costs will be removed and better designs or decisions can be made. Lots of life case studies will be used to illustrate the group dynamics and processes involved in a value management study.

We look forward to your participation for this fabulous event by Jim Rains.

Trainer's Profile



Mr. Jim Rains
President
Advanced Value Group

32 years at General Motors; have performed value analysis/value engineering since 1980; specialize in recognizing cost issues (labor, material or burden/overhead) and fixing them; have performed lean manufacturing & lean engineering since 1988; have performed DFA/DFM since 1990; have performed competitive benchmarking using tear-down analysis since 1986; have studied target costing concepts since 1991; have regularly conducted benchmarking trips to world-class Japanese companies since 1999.

Course Time Table

- ✓ 08:30 Registration
- ✓ 09:00 Workshop Commence
- ✓ 10:30 Coffee Break
- ✓ 12:30 Lunch
- ✓ 13:30 Workshop Commence
- ✓ 15:30 Coffee Break
- ✓ 17:30 End of Day

Advanced Functional Analysis and Creativity

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Day One 19 April, 2012

Welcome and Participant Introductions; Review Agenda Setting expectations & goals

Pre workshop Introduction: Value Creation Contradiction



→ FAST → Risk
→ FPS → Creativity

Problem Identification

- Understanding the Problem
- Setting up the Problem
- Problem Statement

Function Analysis – Function Identification

- Background and History of Function Analysis
- Function Identification
- Passive Verbs versus Active Verbs
- Measureable Nouns
- Work Functions
- Sell Functions
- Characteristics of the Basic Function

 Practice Basic Function Identification - Class Workshop

Function Analysis – FAST Diagrams

→ Introduction → FAST Misconceptions
→ FAST Key Questions

- ✓ **Technical FAST**
 - ❓ HOW – WHY Logic
 - ❓ WHEN direction
 - ❓ Higher Order Function
 - ❓ Assumed Function
 - ❓ Level of Abstraction
 - ❓ "And" and "Or" branches (Equal and Less Important branches)

- ✓ **Classical FAST**
 - Independent Function
 - Dependent Function
 - Activity

- ✓ **Customer Oriented FAST**
 - Task Function
 - Primary Basic Functions
 - Supporting Functions

FAST Diagramming Hints

 Practice FAST diagramming – Class Workshop

Day Two 20 April, 2012

Other FAST Diagram Examples

 Dining Room Table Exercise

Dimensioning FAST Diagrams

- Clustering Functions
- Cost Reduction Targets VS Assign DTC to new concepts
- Sensitivity Matrix -During the process of creating the model, customer sensitivity functions can be identified as well as opportunities for significant cost improvements in design and production.

 Creating a FAST Model: A specific Case Study of an Automotive Company

Integrating QFD with FAST

- Perform QFD product planning with product planning matrix
- QFD concept selection matrix
- Review the verb-noun function in QFD matrix
- Dimension the system in the FAST diagram into subsystems/assemblies/parts
- Develop value analysis matrix at system level
- Value analysis matrix completion
- Mechanism target cost estimation

Advanced Creativity

Creativity Video- A

- ✓ Creative Techniques
 - Brainstorming
 - Reverse Brainstorming
 - Gordon Technique
 - Crawford Slip Writing
 - Syntectics
 - Bionics

- ✓ Ways to improve your creative session

Creativity Video- B

Integrated NPI Roadmap ---Put it all together

Application Demonstration

Certificate Award and Q&A