**TRAINING COURSES IN TRIZ, SYSTEMATIC INNOVATION,**

**AND CREATIVE IMAGINATION DEVELOPMENT**

**萃智系統性創新與創意思考管理課程**

***商業管理TRIZ國際大師- Valeri V. Souchkov 首次訪台***

在此快速發展與高度競爭的時代，靠靈感一閃或腦力激盪的創新只能生存無法卓越。萃智(TRIZ: Theory of Inventive Problem Solving）是最重要的系統性創新手法，主要是系統性地利用前人及跨領域的智慧來解決問題。它可以很有系統地帶領我們跳出思考窠臼、辨識機會，創意解題。其通盤、有效且具系統化之特性可推廣於各種產業，也成為當今產品、製程及服務的創新，最有效、最重要的系統手法。三星自1998年大量引入萃智，現已擺脫低價低品質產品形象轉為高品質高創新產品公司，年專利數耀世界第二，每年因應用萃智所產生財務效益，數以千萬美金計。GE、LG、松下電器、英特爾、西門子、P&G、通用電器等均大力推展萃智，並獲得大量創新、專利及財務效益。

**【講師介紹】 Valeri V. Souchkov (蘇聯裔荷蘭籍)**

*培訓超過 4000位TRIZ專業人士，遍布全世界60多個國家。*

*其課程被LG集團(樂喜金星集團)評為＂最棒的創新課程The Best Course on Innovation”*

****講師特色**

* 國際萃智TRIZ協會[TRIZ Association (MATRIZ)](http://www.matriz.org)，研究與發展主席。
* 精通TRIZ系統化創新之商業管理&科技工程
* 曾經輔導過許多知名企業-POSCO(浦項鋼鐵)、Unilever(聯合利華公司)、ING (安泰投信)**、**[Philips](http://www.lighting.philips.com.tw/" \t "_blank) (飛利浦照明)、SHELL (殼牌)、SECO (山高)..等。
* [ICG Training & Consulting (Netherlands)](http://www.xtrix.com) [國際TRIZ訓練中心](http://www.xtriz.com/Training/ttic.htm)創辦人，並擔任訓練中心主席。
* 推廣萃智創新手法與工具，建議系統性創新流程
* 培訓世界各地專業TRIZ人才與擔任企業TRIZ顧問
* 定期公開發表萃智(TRIZ)、創新與創意期刊
* 荷蘭知名大學-湍特大學 (University of Twente) 特聘講師
  + 培訓各領域學習 TRIZ 知識與手法
  + 輔導TRIZ相關理論論文研究
* 影片觀賞- Valeri V. Souchkov [TRIZ 基本介紹影片](http://youtu.be/pNsczjy4mUk)

**【擬定時間】**

**1/20 (二)、1/21 (三)、1/22(四)、1/26 (一)、1/27(二) 、1/28(三) 09:00-18:00**

**【建議主題選單】**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Course Topic** | **Hours** | **Level** |
| 1 | Introduction of TRIZ for Technology and Engineering  萃智創新手法介紹-科技工程類 | 8 hours | Beginners |
| 2 | Introduction of TRIZ for Business and Management  萃智創新手法介紹-商業管理類 | 8 hours | Beginners |
| 3 | Innovative problem solving with TRIZ for Business & Management 萃智創新之商業管理要領與案例 | 16 hours | Beginners |
| 4 | Systematic Business Model Innovation  系統性商業創新模式 | 8 hours | Intermediate |
| 5 | Value-Conflict Mapping (VCM)  價值衝突圖 | 8 hours | Intermediate |
| 6 | Root-Conflict Analysis (RCA+)  根源衝突分析法 | 8 hours | Intermediate |
| 7 | Creative Imagination Development  發展創造性想像力 | 8-16 hours | Intermediate |

**Introduction of TRIZ for Technology and Engineering (8 hrs) – Beginners**

* Everyone who wants to learn the ability to expand his creative skills by adding systematic approach to the process and use patterns of strong thinking: engineers eager to innovate; manufacturing professionals, R&D professionals, new product development professionals and managers, new business development managers, marketing & engineering professionals.
* Introduction to the background and overview of TRIZ and Systematic Innovation
* System thinking instead of random search for solutions.
* Basic concepts of TRIZ: Ideality, Resources and Contradictions.
* TRIZ Tools and Techniques to solve inventive problems.
* A roadmap to the process of TRIZ and Systematic Innovation.
* Overview of tools and techniques of TRIZ and Systematic Innovation.
* Altshuller Matrix and Inventive Principles for generating new ideas.
* Practice with Altshuller Matrix and Inventive Principles.

**Introduction of TRIZ for Business and Management (8 hrs) – Beginners**

* Everyone who wants to expand creative skills by adding systematic approach to the process and use patterns of strong thinking: business and technology managers, team leaders, management consultants, consultants in quality and innovation.
* Introduction to the background and overview of TRIZ and Systematic Innovation
* System thinking instead of random search for solutions.
* Basic concepts of TRIZ: Ideality, Resources and Contradictions.
* TRIZ Tools and Techniques to solve inventive problems.
* A roadmap to the process of TRIZ and Systematic Innovation.
* Overview of tools and techniques of TRIZ and Systematic Innovation.
* Introduction to contradiction definition technique to analyze problem situations, decompose complex situation, and create structured problem maps.
* Contradiction Matrix and Inventive Principles for generating new ideas.
* Practice with Contradiction Matrix and Inventive Principles.

**Innovative problem solving with TRIZ for Business & Management (16 hrs)** – **Beginners**

* Everyone who wants to expand creative skills by adding systematic approach to the process and use patterns of strong thinking: Business and technology managers, human resource managers, team leaders, business analysts, management consultants, consultants in quality and innovation, productivity consultants, students of business and management disciplines, problem solvers, strategists.
* TRIZ Background and main concepts of systematic inventive problem solving.
* Business Modeling.
* Basic Process for inventive problem solving.
* Ideal Final Result technique.
* Business Resources, Multi-Screen Diagram of Thinking.
* Problem Perception Map technique to identify problem level and borders.
* Innovation Situation Questionnaire: Constraints, Demands, Requirements.
* Root-Conflict Analysis (RCA+) technique to present and decompose complex situation, extract and formulate problems, and create problem maps.
* Inventive Principles for solving problems by eliminating technical contradictions and conflicts.
* Contradiction Matrix technique for systematic access to Inventive Principles.
* Ideas Evaluation and Landscaping.
* Evaluation of secondary problems.
* Overview of Advanced TRIZ techniques.
* Case studies and practice.

**Systematic Business Model Innovation (8 hrs) –** **Intermediate**

* Everyone who is interested in business innovation: business professionals, business managers, team leaders, management consultants, productivity and quality professionals, executives.
* Introduction to Business Modeling
* Extraction of potential challenges and opportunities
* Using Ideality and Resources to innovate existing business models
  + Value-Conflict Mapping (VCM) to identify and structure critical contradictions.
  + Ranking and selection of critical contradictions in a business model.
  + Solving business contradictions with ideality and resources.
* Practice with using ideality and resources
* Discovering and solving contradictions in business models
* Practice with discovering and solving contradictions in business model

**Value-Conflict Mapping (VCM) (8 hrs)** – **Intermediate**

* Those who wish to enhance their problem solving capabilities and learn how to deal with complex innovation issues
* Innovation through problem solving
* Introduction to the idea of a blocking contradiction
* Mapping market requirements and demands to relative values of technical and business parameters.
* A tree of blocking contradictions
* Value-Conflict Mapping process.
* Practice with Value-Conflict Mapping
* How to use results obtained with Value-Conflict Mapping

**Root-Conflict Analysis (RCA+) (8 hrs)** – **Intermediate**

* Those who wish to enhance their problem solving capabilities and learn how to deal with complex problems: from students to executives, from business and technology to film making.
* Key concepts and philosophy of Root Conflict Analysis (RCA+)
* Conflicts as major obstacles for obtaining powerful solutions
* A process of top-down decomposition of problems and revealing conflicts
* Analysis of RCA+ diagrams
* Categorization of conflicts
* Selection of a conflict to resolve
* Selection of a strategy for conflict resolution
* Conflict separation principles to generate ideas on how to resolve conflicts.
* Extensive practice with RCA+ on customer cases

**Creative Imagination Development (8-16 hrs)** – **Intermediate**

* Those who wish to enhance their problem solving capabilities and learn how to deal with complex problems: from students to executives, from business and technology to film making.
* Background of Creative Imagination Development
* Ordinary thinking vs. power thinking: the differences
* Psychological inertia, fears, and barriers: how to fight?
* Out of the box thinking: why difficult? What can be done to improve?
* System Thinking and Multi-Screen Diagram.
* Recognizing and eliminating existing and potential contradictions
* Parameter Intensification and Operator "Size-Time-Cost".
* Attribute Transfer and Focal Objects.
* Multi-Level Design
* Trend Extrapolation technique
* Ideal solutions and Gold Fish technique.
* Collection of Generic Principles for Creative Ideas Generation.
* Inventive storytelling and scenario development
* Extensive practice with all tools learned.

**【聯絡方式】**

單位名稱：中華系統性創新學會/亞卓國際顧問股份有限公司

聯絡窗口：

* 吳亮東 03-5723200 # 15 [**wu.justin@ssi.org.tw**](mailto:wu.justin@ssi.org.tw)
* 詹圓圓 03-5723200 # 12 [**chan.yuangyuang@ssi.org.tw**](mailto:chan.yuangyuang@ssi.org.tw)

附件資料

**【國際大師公開行程】**

|  |  |  |  |
| --- | --- | --- | --- |
| **日期** | **課程** | **授課時數** | **地點** |
| **2015/01/17 (六)**  **10:00-11:00** | [2015 系統性創新研討會暨第七屆中華系統性創新學會年會](http://www.ssi.org.tw/si)-專題演講  暫定主題: TRIZ and Systematic Innovation for Business and Management: current status & Future prospects. 應用萃智系統化創新於商業與管理: 現況和未來 | 1 小時 | 台北科技大學 |
| **2015/01/18-19 (日-一)**  **09:00-18:00** | TRIZ Innovative problem solving with TRIZ for Business & Management  萃智創新之商業管理應用(基礎班) (公開班) | 16 小時 | 台大育成中心 |
| **2015/01/23-25 (五-日)**  **09:00-18:00** | Advanced TRIZ for improving Business Systems  進階萃智商業管理創新手法 (公開班) | 24小時 | 台大育成中心 |

**TRIZ Innovative problem solving with TRIZ for Business & Management**

**萃智創新之商業管理應用(基礎班) (16 hrs)**

* Everyone who wants to expand creative skills by adding systematic approach to the process and use patterns of strong thinking: Business and technology managers, human resource managers, team leaders, business analysts, management consultants, consultants in quality and innovation, productivity consultants.
  + Explanation of key concepts and a process of innovative conflict and problem solving based on combining systematics and creativity.
  + System Thinking and System Levels of problem solving; dealing with conflicts by using the “win-win” strategy.
  + Business Model Innovation with TRIZ.
  + Ideal Final Result and use of Resources.
  + Root Conflict Analysis (RCA+): building a map of causes and effects which contribute to an overall problem; identification of root conflicts.
  + Innovative Problem Solving with Innovative Principles and Patterns of conflict elimination: learning problem solving methods which help to solve identified problems by conflict resolution in most ideal ways.
  + Idealization and optimization of solutions: analysis of resources to solve problems or implement new business solutions in most cost-effective ways.
  + Evaluation and idea landscaping techniques.
  + Secondary Problem Flows.
* **The course participants who successfully complete the course will be awarded by the certificates of the International TRIZ Association (MATRIZ), Level 1.**

**Advanced TRIZ for improving Business Systems 進階萃智商業管理創新 (24hrs)**

* Everyone who wants to expand innovative skills by adding systematic approach to the process and use patterns of strong thinking: Business and technology managers, human resource managers, team leaders, business analysts, management consultants, consultants in quality and innovation, productivity consultants.
* Advanced TRIZ Background.
* Business Modeling and Business Model Canvas.
* Business Systems Resources.
* Business Ideality Roadmap.
* Value-Conflict Mapping for identifying business evolution barriers and innovation opportunities.
* Practice in groups with Value-Conflict Mapping.
* Functional Evolution of Systems.
* Laws and Trends of Business Systems Evolution.
* Practice with the Laws and Trends of Business Systems Evolution. Application of the Laws and Trends of Evolution of Business Systems Evolution
* Function Modeling, identification of functional problems.
* Business Systems Functional Problem Solving with the Inventive Standards for Business and Management.
* Business System Trimming and evolution towards ideality.
* Business Model Innovation.
* Ideas Evaluation and Landscaping.
* Evolution trees and roadmaps.
* Case studies and practice
* **The course participants who successfully complete the course will be awarded by the certificates of the International TRIZ Association (MATRIZ), Level 2.**