

MA TRIZ (The International TRIZ Association)

系統性創新是不景氣中逆勢成長，最有效辨識機會、解決問題的利器

- 中華系統性創新學會獲國際萃智MA TRIZ學會頒授 “Award of Achievement” 為推廣國際證照之正式代表!

國際萃智協會 MA TRIZ



中華系統性創新學會



亞卓國際顧問股份有限公司

MA TRIZ (The International TRIZ Association) 課程介紹

國際萃智專業培訓&認證

OVERVIEW

In this course, we move from the “big picture” perspective presented in the Introductory Course to knowledge and hands-on practice in applying TRIZ innovation tools at a basic level. This course is primarily focused on the fundamental principles of product innovation utilizing TRIZ tools. It provides participants with basic skills that can be applied to simple product innovation problems in their daily work. The course is delivered using a combination of lecture materials and hands-on exercises

What Participants Will Achieve

- Ability to apply TRIZ tools and solve innovation problems at the basic level
- Ability to develop basic functional queries required to access an external Knowledge Network

Who Should Attend

Engineering Managers, Product/Process Development Engineers; Application Engineers, Educational Instructors; Those who desire to be systematic inventors

MA TRIZ (The International TRIZ Association)

Dr./Professor Sergei Ikoenko

講師介紹

國際萃智專業培訓&認證

POSITIONS

Vice-President of International TRIZ Association (MATRIZ) (國際萃智協會 副會長 & 理事)

Adjunct Professor at Massachusetts Institute of Technology (MIT 兼任教授)

Honorary Professor of the University of Edinburgh, UK. (英國愛丁堡大學 榮譽教授)

Director of Innovation Leadership at a consulting firm GEN3 Partners in Boston (GEN3 教育訓練中心主任)

EDUCATION

Dr. Ikoenko holds two doctorate degrees (美國 工業工程 及 蘇聯 環境工程與科學 雙博士)

Ph.D in Industrial Engineering

Dr.-Eng. in Environmental Engineering and Sciences

Master degree in Patent Law

PUBLICATIONS

Author of more than 97 publications, and an active member of ASME, ACS, and ASEE.

CERTIFICATIONS

-TRIZ Master; Dr. Ikoenko has studied and taught TRIZ since 1986 and holds a certificate of TRIZ instructor from G. Altshuller, the founder of TRIZ.

-Certified Six Sigma Black belt, QFD Black Belt and Lean Master-Practitioner.

-A license of Professional Engineer from the Commonwealth of Massachusetts,

EXPERIENCES

Dr. Sergei Ikoenko is one of leading consultants and project facilitators in innovation technology of design. He has conducted more than 600 courses on innovation and TRIZ (Theory for Inventive Solving) topics for Fortune 500 companies worldwide. Dr. Ikoenko was the primary instructor to deliver corporate TRIZ training programs at Procter & Gamble, Mitsubishi Research Institute, Samsung, Intel and other companies. He is a primary Innovation instructor of Siemens Innovation Tool Academy and General Electric Global Research. Dr. Ikoenko has taught seminars at MIT, Harvard University, Carnegie-Melon University, California Institute of Technology, Stanford University, Vanderbilt University, University Problem of London, Oxford University, and other leading educational institutions worldwide.

AWARDS

- Awarded 77 patents in various engineering fields.
- Special awards for development of innovation at Procter & Gamble and Unilever.
- Award from Samsung Electronics for integrating TRIZ into -Samsung Six Sigma Black Belt training.
- Holds numerous silver and gold awards from international engineering shows and exhibitions for his inventions.
- Innovation Award from Oak Ridge National Lab of the Department of Energy, USA.

MA TRIZ (The International TRIZ Association)

許棟樑 教授
講師介紹

國際萃智專業培訓&認證

-現 任-

清華大學工業工程與工程管理系教授。中華系統性創新學會理事長。國際製造工程學會中華民國分會 理事、教育訓練中心主任。Editorial Board, Computer & Industrial Engineering, An International Journal.(國際學刊編輯委員) (SCI Indexed); Editor-in-chief, International Journal of Systematic Innovation(國際系統性創新學刊 主編); 國際創新創業發展協會理事。

-學 歷-

美國加州大學洛杉磯分校工學博士、資訊科學碩士(Engr. Deg.); 美國西北大學企管碩士，紐約州立大學機械碩士，臺灣大學機械學士。

-經 歷-

9年業界14+年學界工作經驗。曾服務於美國電子業Motorola (摩托羅拉)及Hewlett-Packard (惠普)多年。中華萃思學會秘書長。中國工業工程學會教育與訓練委員會召集人。兼任中央標準局電子類專利外審審查委員，國際製造工程學會中華民國分會 秘書長，台大機械系校友會 理事，工研院顧問。國家高考命題委員。

-研究領域-

系統性創新原理與應用、設計與製造管理、工廠分析診斷與改善、半導體設備管理。與電子業界合作密切，進電子工廠現場參觀及探討問題250次以上。著作含專書2本，31篇雜誌/專刊論文，80餘篇研討會論文。

-榮 譽-

國際製造工程學會 國際功勳獎 (2004年); 教育部90年度產學合作獎 (2002年頒)，者; 國際製造工程學會中華民國分會 傑出服務獎 (2002及2000年); 國科會 甲等研究獎多年; 中華民國考試院典試委員。

MA TRIZ (The International TRIZ Association) | 國際MA TRIZ組織

國際萃智專業培訓&認證

MATRIZ 為國際萃智協會之俄文的縮寫。英譯為International TRIZ Association該協會為Genrich Altshuller所創辦，是目前國際公認最權威的萃智組織，全世界約55個創新組織為其聯盟的團體分會。其團體分會需經過嚴格審查，代表該團體具核可的TRIZ創新工具之能力，可推動MATRIZ之活動。

中華系統性創新學會為國際萃智協會 (MA TRIZ)正式列入該組織國際會員並獲國際萃智MA TRIZ學會頒授"Award of Achievement"為推廣國際證照之正式代表!



MA TRIZ (The International TRIZ Association) | MA TRIZ 證照制度

國際萃智專業培訓&認證

MATRIZ證照制度 分為5級，Level 1-3為考照制度，Level 4 & 5為申請制度。各Level需循序以進。Level 1-3有明確課程及考試/專題實作內容。Level 4 TRIZ Expert (萃智專家) 需要通過Level 3後有顯著創新貢獻，含相當質與量的專利才能申請。Level 5為 TRIZ Master (萃智大師)。除了早年Altshuller 欽點的60餘名外，需要Level 4後在創新領域有獨創新理論或工具，通過嚴格的dissertation(博士級論文)審核及Dissertation Board委員會口試。MATRIZ 證照代表國際最權威單位，創新解題能力的認可。

MA TRIZ (The International TRIZ Association) | MA TRIZ 考試方式

國際萃智專業培訓&認證

MATRIZ level 1 & MATRIZ level 2 考試方式為選擇題及簡答題。用詞為 classical TRIZ 之用詞。主要考基礎觀念。上課都會涵蓋。本課程提供紮實的證照課程培訓與實務解題訓練。課程結束後欲取得國際證照者可立即參加證照考試。出席率超過 80% 者亦可取得學會上課證明。

專題實作(3~4人一組)。需兩者都通過。考試用詞為 classical TRIZ 之用詞。上課都會涵蓋。專題實作，依課程所學實際解題，以報告送審，輔導到通過的水準為止。本課程提供扎實的證照課程培訓與實務解題訓練。出席率超過80%者亦可取得學會上課證明。全程TRIZ Master英文授課，中文重點復習，增強考證實力。

MA TRIZ (The International TRIZ Association) | MA TRIZ 考試資格

參加

TRIZ Master Dr./Professor Sergei Ikovenko 專業培訓課程後，才能擁有參與 MA TRIZ 認證考試的資格。

MA TRIZ (The International TRIZ Association)

.MA TRIZ Certification Level 1

國際萃智創新專員-初階

Basic TRIZ Certification Training (4 days)



Table of Contents

Program Element		
01	Function Analysis	功能分析
02	Cause-Effect Chains Analysis	因果鏈分析
03	Trimming	簡約設計
	– Radical Trimming	激烈消剪
04	Feature Transfer	特性轉移
05	Identifying Key Problems	辨識關鍵問題
06	Function-Oriented Search	功能導向搜尋
07	Inventive Principle Applications	發明原則應用
08	– Resolving Engineering Contradictions (Matrix) – Resolving Physical contradiction (Algorithm)	解決工程衝突-矩陣 解決物理衝突-演譯法
09	Introduction to Standard Inventive Solutions	標準解簡介
10	Introduction to Trends of Engineering System Evolution	工程系統趨勢簡介
Review + Exam		

MA TRIZ (The International TRIZ Association)

.MA TRIZ Certification Level 2

國際萃智創新專員-進階

Advanced TRIZ Certification Training
(4 days)



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Program Element		
01	S-Curve Analysis	S 曲線分析
02	Selected Trends of Evolution	演化趨勢
03	Nuances of Cause Effect Chains Analysis	因果鏈分析之細節
04	Nuances of Feature Transfer	特性轉移之細節
05	Inverse Function-Oriented Search	反功能導向分析
06	Standard Inventive Solutions	標準發明解
07	Algorithm for Inventive Problem Solving (intro)	創新性問題解決演譯法介紹
08	Modeling Problems and Solutions	模式化問題與解答
Review + Exam		

MA TRIZ (The International TRIZ Association)

.MA TRIZ Certification Level 3

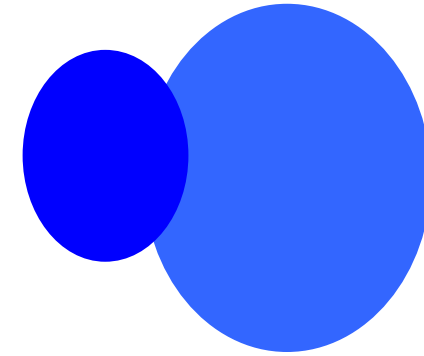
國際萃智創新師-專業級 Professional TRIZ Certification Training (9 days)



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Program Element		
00	ARIZ (master knowledge)	創新性問題解決演譯法
01	Product Innovation Roadmap	產品創新路徑圖
02	Flow Analysis	流程分析
03	Function Analysis for Processes. Trimming for processes.	製程功能分析, 修剪 流程
04	Innovation Benchmarking	創新標竿
05	Algorithm for Using Standard Solutions (AIST)	使用標準解之演譯法
06	Clone Problems Application	相似問題應用
07	Super-Effect Analysis	超效應分析
08	Trends of Engineering System Evolution (TESE)	工程演化趨勢
09	TRIZ Forecasting	萃智預測方法
10	Patent Strategies	專利策略
11	Failure Anticipation Analysis	失效預期分析
Review + Exam		

優質專業培訓課程與認證考試



最新培訓時間

.2011/12/17起 第六屆 MA TRIZ Certification Level 1

.2012/02/04起 第五屆 MA TRIZ Certification Level 2

報名方式

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Contact Information

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