



distinction and correlation between technical contradiction and physical contradiction, and the corresponding TRIZ innovative solutions, contradiction matrix table and separation rule, 39 engineering parameters and 40 innovative rules, etc. they are perfectly applied to practical problem solving through numerous case group practice, so as to help students quickly master innovative methods and skills, Stimulate personal innovation potential and improve creative problem solving ability.

At the same time, it will also teach the quick innovation skills used with TRIZ, such as analogies, whimsical brute think, idea box, second reverse / pain storm, double reverse / pain story, etc. if it can be mastered and effectively applied, it can also help ordinary engineers quickly improve their personal creative problem-solving ability.

Finally, after applying the above TRIZ or other innovative techniques to get multiple problem solutions, we need to apply proctor's scheme selection and innovation Pugh analysis to select the scheme and further innovate the best way to solve the problem. Only in this way can we realize the perfect application of innovative methods in practical problem solving.

You can wait 100 years for inspiration, or you can use TRIZ principles to solve problems in 15 minutes. TRIZ, a powerful tool, eliminates the need for compromise and exchange caused by conflicts between different performance measurements, and brings an executable methodology to innovation. "

——Genrich Altshuller (Founder of TRIZ)

TRIZ innovation technique is a complete set of integration of innovation theory and method which was summarized and created by the great inventor of the former Soviet Union, Mr. Genrich Altshuller. It is the most advanced and practical methodology of invention and innovation in the world so far, and is known as the magic golden point to solve the problem of invention. It is called super invention in the United States and Japan; TRIZ innovation technique is a set of systematic tools and methods to solve the problems of invention, which is summarized and refined from more than 2 million high-level invention patents around the world. It completely changes the way of solving problems by thousands of repeated experiments in the past research and development work or by the inspiration of experts. TRIZ innovation techniques provide inventors with a clear roadmap for innovation. According to the practice results of a large number of enterprises studying and applying TRIZ innovation skills, a scientific and technological personnel who master the theory of

创造性的问题解决之道-TRIZ
Theory of Inventive Problem Solving

TRIZ

基于2,500,000个专利和1500人多年的研究
由Genrich Altshuller开发

目前至少有**105家**知名企业已经开始使用TRIZ, 其中包括杜邦, Mobil, 3M, 霍尼韦尔, 福特汽车, 丰田汽车, 宝马汽车, 三星电子, 辉瑞制药等等



TRIZ innovation skills and those who do not grasp TRIZ innovation skills have increased their innovation ability by 6 to 10 times. By learning TRIZ innovation technique theory, the technicians and engineering technicians of enterprises can suddenly become a new type of innovation and invention technology elite from ordinary professionals, greatly improve the value of people and create great benefits for enterprises.

At present, many world-renowned enterprises have implemented TRIZ in R & D design process, and use TRIZ to solve the actual problems encountered every day, help them improve product R & D efficiency, reduce R & D costs, improve the overall innovation ability of enterprises and even build development strategies for future science and technology. TRIZ is currently being widely implemented by Ford, GM, 3M, Philips, LG, Bosch, Siemens, Samsung and other enterprises.



Training Agenda: (Day1)

Day	Topic	Details	Start	End	Duration	
D1	TRIZ-global innovation strategy - APAT	Why can we not increase our business?	9:00	9:30	0:30	
		We need pay attention to all items (TRIZ-APAT) All the People All the Time				
	TRIZ Overview	TRIZ -the Golden Touch	9:30	10:30	1:00	
		The core idea of TRIZ				
		S-curve of technology evolution				
		Idealization level				
		IFR(Ideal Final Result) case study				
	TRIZ prediction tool-S-curve and evolution rule of technology system	IFR(Ideal Final Result)team practice				
	Coffee Break			10:30	10:40	0:10
	Technical Contradictions - Inventive	Technical Contradictions	10:40	12:00	1:20	
Technical parameters						

Principles	TRIZ Table			
Lunch Break		12:00	13:00	1:00
Technical Contradictions - Inventive Principles	Technical Contradictions TRIZ Application case study	13:00	15:00	2:00
	Introduction to common Inventive Principles			
Coffee Break		15:00	15:10	0:10
Physical Contradictions- Separation Principles	Physical Contradictions	15:10	16:30	1:20
	Separation Principles			
	Physical Contradictions TRIZ Application case study			

Training Agenda: (Day2)

Day	Topic	Details	Start	End	Duration	
D2	TRIZ Team practice	TRIZ group practice and comments	9:00	11:00	2:00	
		Exercise 1 - technical contradiction				
		Exercise 2 - Physical contradiction				
		Exercise 3 - synthesis				
	Coffee Break			11:00	11:10	0:10
	Quick innovation skills	Dialectical view of TRIZ: advantages and disadvantages	11:10	12:00	0:50	
		Quick innovation skills and team practice				
		Analogies Brute Think Idea Box Double Reverse				
	Lunch Break			12:00	13:00	1:00
	Evaluation method of TRIZ innovation concepts - Pugh Matrix	Integrating Ideas Into Concepts- KANO	13:00	14:00	1:00	
Pugh Concept Selection						
Pugh Concept Selection - Exercise						
TRIZ	Basic statistics for Taguchi	14:00	14:20	0:20		

	Innovative solutions Parameter quantization method- Taguchi DOE	DOE			
	Coffee Break		14:20	14:30	0:10
	TRIZ Innovative solutions Parameter quantization method- Taguchi DOE	Signal to noise ratio, a quantitative robustness index of Taguchi parameters	14:30	16:30	2:00
		Steps to quantify the parameters of Taguchi innovation program			
		Taguchi innovation program parameters team exercise			
Successful TRIZ innovation project sharing					
All day Q & A Summary					

Course Methodology

Breakout Exercises

- The exercises will be conducted during each training stage to practice TRIZ core tools such as IFR(Ideal Final Result), Technical & Physical Contradictions, Inventive Principles , Quick innovation skills, Pugh Matrix...etc. and also to evaluate the understanding of the training courses.
- The purpose of breakout exercises is to develop skills of TRIZ Application by having individuals or teams working on practical situations

Evaluation of Individual Participation

- Attendees will be evaluated on class participation, which encompasses the following aspects:
 - Asking meaningful questions in class
 - Sharing professional experiences
 - Taking an active role in team exercises
- Effective class participation provides the attendee with opportunities to demonstrate practical understanding of TRIZ

Certificate

- Certificate will be issued after satisfied participating, training performance evaluation.

The course has been trained for the following well-known enterprises and has been highly recognized:





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