

NEW TOOLS OF ADVANCED TRIZ Essentials and Practice

4-Day Hands-on Practitioner Training Workshop

December 5-8, 2016

Park Plaza Hotel, Utrecht, The Netherlands

Instructors:

Sergei Ikoenko, Ph.D, TRIZ Master

Mark Barkan, Ph.D, TRIZ Master

Valeri Souchkov, M.Sc, TRIZ Master

This unique and intensive 4-day hands-on advanced training workshop launches a series of training workshops by the International TRIZ University for those who are willing to learn new TRIZ tools and master practical skills with these tools to expand and enhance their innovative capabilities and increase their innovative competitiveness.

In this particular workshop, three techniques will be studied:

- **How To Design Self-Selling Product:** a technique for developing a strategy to invent a product or a technology to considerably reduce efforts with bringing a product to a market.
- **Proactive Failure Prevention (PFP):** a technique which focuses on the analysis of potential causes of failure and how to prevent such failure.
- **Root-Conflict Analysis (RCA+):** a technique for top-down decomposition of inventive problems to extract underlying contradictions.

The course introduces a unique material developed by the authors of the course. All the authors - instructors of the course - have considerable experience with TRIZ, which is based on many years of intensive practice with a large diversity of industries worldwide.

GOALS OF THE COURSE

- Learn and understand new tools which further expand TRIZ and systematic innovation.
- Master practical skills by working on real-life projects.
- Get answers to critical questions.

TARGET AUDIENCE

TRIZ users and specialists, technology managers, engineers and R&D professionals, new business development managers, innovation professionals, innovation managers, new product and technology development professionals, technology executive officers, Six Sigma specialists, technical creativity and innovation trainers and facilitators, consultants, lecturers.

No formal certification in TRIZ or Systematic Innovation is required to participate in the workshop although it is recommended that a participant possesses basic or advanced knowledge of TRIZ.

CONTENTS OF THE COURSE

DAY 1: ROOT CONFLICT ANALYSIS (RCA+)

Instructor: Valeri Souchkov

Root-Conflict Analysis (RCA+) expands the line of analytical tools developed for analysis of particular inventive situations. It provides top-down decomposition of an inventive problem represented as a negative or ineffective effect to a tree of causes and contradictions. The major difference between RCA+ and similar methods (e.g. Cause Chain Effect Analysis) is that the paradigm of RCA+ was drawn from the underlying TRIZ philosophy, which helps to directly focus on search for contradictions, which create an inventive problem. RCA+ is domain independent method.

Contents:

- Introduction.
- Paradigm and main concepts of RCA+.
- Types of inventive problems.
- RCA+ Process:
 - Rules, questions and checklists.
 - Legend of RCA+ diagram.
 - Criteria for completing the in-depth analysis.
 - Completing RCA+ diagram.
 - Checking RCA+ diagram consistency.
- Types of interactions in the RCA+ diagram.
- Ranking and selection of problems.
- Examples of application.
- Scenarios of using RCA+ Results with other TRIZ tools.
- Practice with RCA+ problem analysis and contradiction selection.
- Discussions and Summary.

DAY 2: HOW TO DESIGN SELF-SELLING PRODUCT

Instructor: Sergei Ikoenko

It is well known that one can call innovation successful only after it captured the market and demonstrated its value. Sometimes many efforts are required to bring a new product or technology to the market. Is it possible to reduce these efforts? Yes, if a product or a technology has been invented and designed in a such a way that it “sells itself”. The workshop will present a method and a technique based on combination of Main Parameters of Value and Innovation Portfolio Analysis to identify a strategy of developing a “self-selling” product or technology.

4-Day Training Workshop: New Tools of Advanced TRIZ

Contents:

- Introduction.
- Voice of the Customer and notion of MPVs (Main Parameters of Value).
- Types of MPVs:
 - Known/unknown;
 - Latent;
 - Tacit.
- MPV Discovery and TRIZ tools for MPV Discovery:
 - Function Analysis and MPV Function Distribution;
 - Trends of Engineering System Evolution for MPV Discovery;
- MPVs for different stakeholders and MPV Contradictions.
- Innovation Portfolio Analysis:
 - Portfolio Mapping: how to compare apples and oranges;
 - MPV Performance/Price Landscaping;
 - Gross Profit Potential/Customer Value;
 - Development of Innovation Strategies.
- Hands-On practice on Innovation Portfolio Analysis and Innovation Strategies Development.
- Discussions and Summary.

DAY 3: PROACTIVE FAILURE PREVENTION

Instructor: Mark Barkan

This one-day workshop will introduce the participants to one of the TRIZ based tools – Proactive Failure Prevention (PFP). This methodology focuses on proactive analysis of how to cause a system to fail and the necessary resources to make it fail. This tool can be used in either a post failure analysis mode or in a pre-operating design mode. PFP is a far more general failure analysis tool than other tools like HAZOP or FMEA, as its basic methodology is not based upon any particular technology or industry. It can be used to analyze any type of process, system, or even the soft issues in an organization.

Contents:

- Introduction.
- A brief description of Proactive Failure Prevention (PFP), its origins and philosophy.
- What is PFP
 - Main idea of PFP
 - Main features of PFP
 - Simplified PFP algorithm
- PFP and TRIZ Applications.
- Examples of application.
- Hands-On practice with a situation presented by one of the participants
- Discussions and Summary.

DAY 4: INTERACTIVE SESSIONS ON ADVANCED TRIZ TOPICS

Instructors: Mark Barkan, Sergei Ikoenko, Valeri Souchkov

The last day of the workshop will include working on practical issues and discussions of the tools and best practices with advanced TRIZ. This day will be organized as a series of interactive sessions between the instructors and the participants and will feature an open agenda. Prior to

4-Day Training Workshop: New Tools of Advanced TRIZ

the workshop, the participants will be requested to submit their proposals for specific discussion topics.

INSTRUCTORS

Mark Barkan, Ph.D, TRIZ Master, developer of Proactive Failure Prevention technique. He applied the technique for various technological and business processes over the past 20 years. He has large experience with numerous practical application of TRIZ, and has been very active in promoting TRIZ training and education worldwide. He is Executive Vice-President of the International TRIZ Association (MATRIZ).

Sergei Ikoenko, Ph.D, TRIZ Master, is one of the world-leading TRIZ Instructors. He delivered TRIZ training to a number of top multinational companies since 1986 and assisted them with TRIZ implementation. He is Adjunct Professor of Massachusetts Institute of Technology (MIT) and President of the International TRIZ Association (MATRIZ).

Valeri Souchkov, M.Sc, TRIZ Master, developer of Root Conflict Analysis, pioneered professional TRIZ and systematic innovation activities in Western Europe. He has experience with delivery of TRIZ and innovation-related services worldwide since 1989 to over 250 customer organizations. He is founder and head of ICG Training & Consulting and Chairman of the International TRIZ University (ITU) of the International TRIZ Association (MATRIZ).

COURSEWARE

Courseware includes the course slides and reference materials. All courseware will be made available to every participant in electronic form for individual use.

CERTIFICATION

Upon successful completion of the course, the course participants will be provided with certificates of accomplishment of advanced TRIZ studies from The International TRIZ University.

GENERAL

- A training day lasts at least 8 hours including lunch and breaks.
- A standard training day starts at 09:00 and finishes at 17:30, with a lunch break from 12:30 to 13:30.
- The last day of the workshop finishes at 16:00.
- Cases and examples presented during the courses are selected from different technology areas. It helps to better understand universal applicability of methods the techniques.
- During the course, the participants learn by working on real cases.

FEES

- Fee per seat is Euro 2900,- (excl. Value-Added Tax).
- 21% Value-Added Tax (VAT) should be added to the fee by organizations from the Netherlands, outside the European Union, EU organizations which do not have registered VAT number, as well as participants participating in the course without business registration.

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- Fee includes: courseware, lunches, and refreshments.
- Accommodation and travel expenses are not included to the workshop fee and are taken care of separately by each participant.
- Prepayment of the full fee before the starting course date is obligatory.
- Payment of the fee should be done based on an invoice issued upon registration.
- Payment term is two weeks since the date of invoicing.
- 10% discount is applicable if two or more participants of the same organization participate in the course.

LANGUAGE

The course is conducted in English.

VENUE

Park Plaza Hotel, Westplein 50, 3531 BL Utrecht, The Netherlands.

City of Utrecht is a main business hub in the Netherlands located within 30 minutes by direct train from the Amsterdam airport Schiphol.

Upon registration, we will provide you with further details and a list of possible accommodations.

REGISTRATION

Please note that the number of participants is limited due to practical orientation of the workshop. To timely register, please visit:

www.trizuniversity.net/registration_course_ntadtriz.htm

MAINTENANCE AND SUPPORT

The course fee includes 3 months of free online “Questions and Answers” support by the course instructors and the International TRIZ University.

FOLLOW-UP SERVICES

Follow-up services might be ordered separately after the course and include the following services:

- Training of different groups and teams within a customer organization.
- Advanced TRIZ and Systematic Innovation Training.
- After-training individual and group coaching.
- Assistance with Innovative Projects, facilitation of working sessions.
- Assistance with corporate-wide TRIZ and Systematic Innovation implementation.

THE INTERNATIONAL TRIZ UNIVERSITY

The International TRIZ University has been established by the International TRIZ Association (MATRIZ) as an autonomous organization to disseminate TRIZ knowledge and practical skills worldwide by providing top-quality education and training in both newest and classical TRIZ-related theories, methods, techniques and tools.

4-Day Training Workshop:
New Tools of Advanced TRIZ

CONTACT

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