# I C G

# TRIZ - CREATIVITY - INNOVATION

**Newsletter from ICG T&C, Summer 2017** 

Newsletters Archive: www.xtriz.com/newsletter.htm

#### **Contents:**

- MATRIZ Level 3 online certification training; Updated Level 1 TRIZ for Business and Management.
- Forthcoming classroom TRIZ training and certification in 2017.
- Forthcoming international TRIZ events in 2017.
- Methods and Tools: Second Edition of RCA+ Guide is uploaded.
- New Papers: TRIZ in the World; System of Standard Inventive Solutions for Business and Management.
- Personal bibliography uploaded.
- New videos.
- New edition of our book (in German).
- New TRIZ books in English.
- · Proceedings of past TRIZ conferences.
- · Other News.

It has been a while since the latest newsletter was released, since everything goes more dynamic and most of news are posted instantly to social networks, such as Linkedin, Facebook, etc. Nevertheless, sometimes it makes sense to "merge" different news and bring them together.

Please check what is new to read, watch, and visit.

Valeri Souchkov

# **NEWS: ONLINE TRAINING**



### **Introduced: MATRIZ Level 3 Certification Course**

New online course: **TRIZ for Technology and Engineering, MATRIZ Level 3.** In 2016, I started a new online certification course which matches requirements of MATRIZ Level 3 training. The course started as an experiment, and after a year it has proven to be successful with a couple of dozen of participants who already successfully completed the course and who are still in the process. For many, real-life classes on Level 3 are difficult to physically attend due to a rather long learning track which requires two full weeks of presence of a participant in a class. Online training is based on individual and time flexible approaches which give a participant to use his or her time more efficiently and effectively. Another advantage of such training is individual coaching of each participant to complete the training program, often based on his/her own projects with a proper level of confidentiality. Each participant who successfully completed the program receives MATRIZ Level 3 certificate.

More information: <a href="https://www.xtriz.com/Training/online">www.xtriz.com/Training/online</a> training te professional.htm

# **Updated: MATRIZ Level 1 Certification Course for Business and Management**

The course **TRIZ for Business and Management, MATRIZ Level 1** has been updated. The basic course on TRIZ for Business and Management has been redesigned with a focus on innovative problem solving. As it was defined at The World Economic forum in Davos in 2016, in 5 years, the three top skills required at a job market would be complex problem solving, critical thinking, and creativity. It is not surprising since jobs requiring non-creative skills get more and more automated. It is obvious that TRIZ can help developing all these skills and provide tools to support systematic creative problem solving. This course is adapted to business and management problem solving and includes materials with many examples of innovative business and management solutions.

More information on online training: <a href="https://www.xtriz.com/Training/online\_training.htm">www.xtriz.com/Training/online\_training.htm</a>

# FORTHCOMING CLASSROOM CERTIFICATION TRAINING WORKSHOPS IN 2017



Although online training gains more and more popularity, classical training format is still in demand. Similar to online training courses, the content of TRIZ courses delivered in classical format is continuously upgraded according to latest developments as well as to changing certification requirements of MATRIZ. In the rest of 2017, the following public certification workshops will take place:

- MATRIZ Level 1 TRIZ for Technology and Engineering, 3 days:
  - September 20-22, 2017, Utrecht, The Netherlands- October 24-26, 2017, Stockholm, Sweden
- MATRIZ Level 1 TRIZ for Business and Management, 3 days:
  - October 11-13, 2017, Utrecht, The Netherlands
  - November 20-22, 2017, Pune, India
- MATRIZ Level 2 TRIZ for Technology and Engineering, 5 days:
  - November 6-10, 2017, Utrecht, The Netherlands
- MATRIZ Level 3 TRIZ for Technology and Engineering: Currently available online only.
- MATRIZ Level 2 TRIZ for Business and Management: will be delivered in the first half of 2018. Please send us a message to keep you updated as soon as the date is known.

More information and registration: <a href="www.xtriz.com/Training/courses">www.xtriz.com/Training/courses</a> and agenda.htm

# **FORTHCOMING INTERNATIONAL TRIZ EVENTS IN 2017**

# TRIZfest 2017 in Krakow, Poland: September (13)14-16, 2017



This year TRIZfest-2017 will be held in Krakow, Poland. September 13, 2017 is scheduled for pre-conference tutorials (I will deliver a tutorial on TRIZ for Business and Management). Most likely it will be the biggest international TRIZ event of the year. Currently there

are about 70 presentations scheduled from different countries: Chile, Germany, Poland, Russia, South Korea, Taiwan, The Netherlands, etc. I chair a paper section at the conference, and plan to present two papers: a summary of 5 years of experience with online training, and a Law of Supersystem Completenes.

The list of conference presentations and authors is available at: <a href="www.triz-event.com/tf2017titles.htm">www.triz-event.com/tf2017titles.htm</a>

Preliminary timetable of the conference is available at: <a href="www.triz-event.com/tf2017timetable.htm">www.triz-event.com/tf2017timetable.htm</a>

General information about the conference: www.triz-event.com, www.matriz.org

# TRIZ Future 2017 in Lappeenranta, Finland: October 4-6, 2017



ETRIA will deliver its international conference TRIZ Future 2017 at the premises of Lappeenranta University of Technology. About 40 papers, mostly from academic community will be presented at the conference this year.

More information can be found at the conference website, <a href="www.lut.fi/web/en/tfc2017">www.lut.fi/web/en/tfc2017</a> as well as at the ETRIA website <a href="www.etria.eu">www.etria.eu</a>

# TRIZCON 2017 in Atlantic City, NJ, USA: October 3-6, 2017



TRIZCON2017
Atlantic City 3 - 5 October
Learn and Live with us!

The Altshuller Institute for TRIZ Studies organizes its conference TRIZCON 2017 in Atlantic City, NJ, USA. This year the dates of both conferences TRIZ Future and TRIZCON overlap, but let us hope that both

events will gather enough participants.

Information: <a href="https://www.aitriz.org/trizcon2017">www.aitriz.org/trizcon2017</a>

# TRIZ for X: Pune, India: November 24, 2017



TRIZ for X: A one-day international event in Pune, India is dedicated to sharing experiences with combination of TRIZ and other methods and tools, such as Design for Six Sigma, Design Thinking, and so forth. I will present adaptation of TRIZ to business and management. In

addition, I will run a preconference certification public training workshop on TRIZ for Business and Management, Level 1.

More information on the conference: www.trizasia.com/events/trizforx/

# **METHODS AND TOOLS**



# Guide to Root-Conflict Analysis (RCA+). Edition 2.0

A new edition of the "Guide to Root-Conflict Analysis (RCA+) was uploaded for open access. RCA+ is a domain-independent tool used during the analytical phase of problem solving to decompose a problem to a tree of causes including contradictions. Unlike other methods for cause-effect analysis, RCA+ is based on TRIZ philosophy which helps to solve drawbacks of other methods: when to stop analysis, how to connect the results of analysis with problem solving tools, and so forth. A new edition includes several changes to the previous edition of the tool, modified and added explanations, and a number of examples of RCA+ diagrams from real projects for technical and non-technical problems.

Available at: www.xtriz.com/publications/ValeriSouchkov RCA Plus Edition 2.pdf

#### **NEW PAPERS**

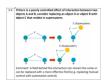


# "TRIZ in the World: History, Current Status, and Issues of Concern"

By Valeri Souchkov.

It has been 25 years since TRIZ moved beyond the borders of the countries of the former USSR and started to be adopted worldwide. I was asked to present my personal view of this part of TRIZ history and current state of the art of TRIZ worldwide at the 8<sup>th</sup> International TRIZ Conference in Moscow, Russia in November, 2016. The story is now available as 23-pages paper which covers key historic events and exposes current questions and concerns. Originally the paper was published in Russian, but later was translated to English and extended:

www.xtriz.com/publications/ValeriSouchkov-TRIZ-in-the-World.htm



# "A System of Standard Inventive Solution Patterns for Business and Management problems".

By Souchkov V. and Roxas J.P.

The paper presented at TRIZfest 2016 provides an overview of a new system of Standard Inventive Solutions ("Inventive Standards") designed to help solving problems in business and management environments. Although the system is based on the original TRIZ concepts, its structure and definitions of many standard solutions

differ from the classical system of 76 Inventive Standards developed by G. Altshuller and his colleagues. The system is currently tested in training and problem solving projects.

www.xtriz.com/publications/Souchkov Roxas System of Standard Inventive Solution Patterns TRIZfest2016.pdf

Those who are interested in receiving the full text of the system, please contact me at <a href="mailto:info@xtriz.com">info@xtriz.com</a>

### **NEW VIDEOS**



# **Answers to Questions**

During my latest training project in India, in February 2017 I answered several questions from TRIZ users in India.

Perhaps these answers can be interested to the rest of TRIZ community. <a href="https://youtu.be/WrJkyHOInVw">https://youtu.be/WrJkyHOInVw</a>



### **Become an Innovation Machine**

A good introductory talk on what is TRIZ and how it can be used for continuous innovation with focus on the TRIZ Trends of Technology and Technical Systems Evolution by Dr. Sergei Ikovenko, President of MATRIZ, at TEDx Dornbin.

https://youtu.be/cCLFJ QxM4E



# Master Class: TRIZ for Business and Management (For Russianspeaking Audience)

During the master class performed and recorded in May, 2015 in Minsk, Belarus, I introduced the key concepts of TRIZ, how they have been adapted to business and management, and how the TRIZ approach to solving non-standard problems can be used within the business and management context to drastically shorten problem solving time and increase quality of new innovative ideas and solutions. This 2-hour video captures the presentation part of the master-class including working on a real case. <a href="https://youtu.be/cmWfccbxMIY">https://youtu.be/cmWfccbxMIY</a>

# **BIBLIOGRAPHY**



# **Bibliography of TRIZ Related Publications**

This summer I posted a list of references to most of my publications related to TRIZ and Systematic Innovation. It also provides open access to publications if there is no copyrights infridgement. It only includes official publications and white papers, blog records or posts to social networks are not included.

The bibliography is available at: <a href="https://www.xtriz.com/publications">www.xtriz.com/publications</a>

# **SECOND EDITION OF OUR BOOK**



# Systematische Innovation: TRIZ-Anwendung in der Produkt- und Prozessentwicklung

Karl Koltze and Valeri Souchkov Carl Hanser Verlag, 2017, 350p. (In German)

In July 2017, German publicher Carl Hanser Verlag announced availability of second, updated and extended edition of our book written with Prof. Dr. Karl Koltze: "Systematische Innovation: TRIZ-Anwendung in der Produkt- und

Prozessentwicklung", German language, 350p. The first edition of the book was extensively recommended as a reference and textbook for German universities, we hope the second edition will further promote TRIZ among German-speaking audience. The books is available for purchase at <a href="https://www.amazon.de/Systematische-Innovation-TRIZ-Anwendung-Produkt-Prozessentwicklung/dp/3446451277">www.amazon.de/Systematische-Innovation-TRIZ-Anwendung-Produkt-Prozessentwicklung/dp/3446451277</a>

# **OTHER NEW BOOKS IN ENGLISH**



# Tree of Technology Evolution: Ways to New Business Opportunities

Nikolay Shpakovsky,

Amazon Digital Services, 2016

The book presents an approach to analyzing large volume of past inventive data and presenting them in form of a tree based on the TRIZ trends of Technology Evolution. Must read for everyone who is engaged to inventing future products and systems. The author, Nikolai Shpakovsky received a corporate award from Samsung Electronics for his contribution to cost reduction and improvement in R&D performance.

 $\underline{www.amazon.com/Tree-Technology-Evolution-Business-Opportunities-\underline{ebook/dp/B01I7BY708}}$ 



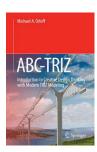
# Research and Practice on the Theory of Inventive Problem Solving (TRIZ): Linking Creativity, Engineering and Innovation.

Leonid Chechurin (Editor)

Springer, 2016. 281p.

The book is a collection of chapters written by TRIZ professionals. It book presents an overview of current trends and enhancements within TRIZ in an international context, and shows its different roles in enhancing creativity for innovation in research and practice. One of the chapters is written by me.

www.amazon.com/Research-Practice-Inventive-Problem-Solving/dp/3319317806



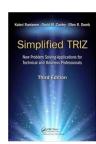
# ABC-TRIZ: Introduction to Creative Design Thinking with Modern TRIZ Modeling

Michael Orloff

Spinger, 2016. 516 pages.

The book presents an overview of modern TRIZ in adaptation by the author. Special content addresses the psychological support of the person during problem solving and promotion of the new idea to realization. The book introduces the so-called Theory of Developing the Creative Personality (TDCP), initiated but not completed by Genrikh Altshuller, father of TRIZ and TDCP. The textbook continues to develop a simple standard model presentation of the problem solving process with a four-step Meta-Algorithm of Invention (MAI) T-R-I-Z.

www.springer.com/qp/book/9783319294353



# Simplified TRIZ: New Problem Solving Applications for Technical and Business Professionals, 3rd Edition

Kalevi Rantanen, David W. Conley, Ellen R. Domb

CRC Press, 2017

This book gives a streamlined and updated toolkit, containing many easy-to-learn and easy-to-use tools for everyday problem solving and step-by-step improvements of work, in the spirit of kaizen. At the same time, it gives basis for thorough study of advanced tools. The new edition will generalize the experience of TRIZ applications

worldwide for last 15 years in big and small companies and also in academy.

www.amazon.com/Simplified-TRIZ-Applications-Technical-Professionals/dp/1138700150



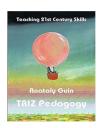
# TRIZ – The Theory of Inventive Problem Solving: Current Research and Trends in French Academic Institutions

Denis Cavallucci (Editor)

Springer, 2017. 284 p.

The book presents a collection of papers written by academic researchers from France. The books is based on the results of a research seminar and each paper is dedicated to a certain trend in the evolution of systematic approach to innovative design.

www.amazon.com/dp/3319565923



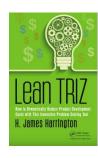
# **TRIZ Pedagogy (Creative Learning)**

Anatoly Guinn, Mark Barkan

Performance Press, 2016, 70p.

TRIZ Pedagogy is a method of education for the coming generations of students around the world and how they can best learn for the work place requirements. The methods explained here are tried and proven ways to get students of all skill levels and ages to think creatively and to adapt to the work place environment. The system has been taught and used worldwide to be very effective. It is an unconventional approach to education.

www.amazon.com/PEDAGOGY-Creative-Learning-Anatoly-Guinn/dp/0942442458



# **Lean TRIZ: How to Dramatically Reduce Product-Development Costs with This Innovative Problem-Solving Tool**

H. James Harrington

CRC Press, 2017, 198p.

The author offers "Lean TRIZ": a new workshop-based process that brings together teams to focus on specific processes, evolutionary product designs, and improvement opportunities. It combines the insight of TRIZ with the simplicity of Value Engineering, EXPRESS, or FAST methodologies.

www.crcpress.com/Lean-TRIZ-How-to-Dramatically-Reduce-Product-Development-Costs-with-This/Harrington/p/book/9781138216778

# **PAST TRIZ CONFERENCE PROCEEDINGS**

If someone missed information about the TRIZ conference proceedings which are in open access and which include both research papers and case studies:

### TRIZfest International Conference Proceedings:

- TRIZfest 2016 Proceedings: <u>www.triz-</u> event.com/TRIZfestProceedings2016.htm
- TRIZfest 2015 Proceedings: <a href="https://www.triz-event.com/TRIZfest-2015%20Proceedings.pdf">www.triz-event.com/TRIZfest-2015%20Proceedings.pdf</a>
- TRIZfest 2014 Proceedings: www.triz-

#### event.com/TRIZfest2014 Proceedings.pdf

Regarding proceedings of **ETRIA Conferences TRIZ Future**, currently free access is available for 2015 conference:

www.etria.eu/portal/index.php/conference-papers-and-proceedings

New editions will be published at the same page as soon as they become available.

Proceedings of 2001-2014 conferences are available to ETRIA members only.

# **OTHER NEWS**

- "TRIZ Day" is scheduled on Nov. 26, 2017 in Villach, Austria (the event will be in German): <a href="https://www.jantschqi.at/triz-2017">www.jantschqi.at/triz-2017</a>
- Report by MATRIZ on TRIZfest 2016 Conference in Beijing, People Republic of China: <u>matriz.org/wp-content/uploads/2016/09/A-Report-on-TRIZfest-2016-conference.pdf</u>
- Overview of TRIZ Future 2016 Conference and conference papers by Toru Nakagawa: www.ogjc.osakagu.ac.jp/php/nakagawa/TRIZ/eTRIZ/eforum/e2017Forum/eNaka-TFC2016-PersonalRep/eNaka-TFC2016-Report-1702.html
- TRIZ Master Vladimir Petrov, one of the key developers of classical TRIZ, started uploading his publications (some with co-authors) in digital form to Amazon, where they can be purchased for relatively low price. Some of these are books, some are extended papers. <a href="https://www.amazon.com/Vladimir-Petrov/e/B019KDPSAO/">www.amazon.com/Vladimir-Petrov/e/B019KDPSAO/</a>
- In April 2017, a new company ADIGAI INNOVATION, S.L., from Bilbao, Spain joined the TRIZ Training International Centre, founded by ICG T&C.
   CEO of the company, Aitor Uribeetxebarria Basañez has been accredited as a trainer of TTIC. <a href="https://www.adigai.com/en/company/">www.adigai.com/en/company/</a>

# xTRIZ LinkedIn Group



The LinkedIn xTRIZ group is available at: <a href="http://www.linkedin.com/groups?qid=4485">http://www.linkedin.com/groups?qid=4485</a>435

To join, please request a membership.

- ICG T&C <u>Newsletter Archive</u>
- Publications from ICG T&C: <a href="http://www.xtriz.com/publications.htm">http://www.xtriz.com/publications.htm</a>

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