



September 11-14, 2019. Heilbronn, Germany
The 15th MATRIZ Conference

TRIZfest-2019

The main theme –

TRIZ in the Framework of the 4th Industrial Revolution

INFORMATION LETTER

The 15th International Conference “**TRIZfest-2019**” will be held in Heilbronn, Germany on September 12-14, 2019 with a pre-conference tutorials day on September 11, 2019. The event is organized by the International TRIZ Association (MATRIZ) and Chamber of Commerce and Industry Heilbronn-Franken (IHK).

We invite everybody who is engaged in TRIZ research and development, who uses TRIZ, as well as those who are interested in TRIZ and desire to meet TRIZ professionals and learn more about TRIZ, to the TRIZfest-2019.

The Organizing Committee is now being formed. The currently appointed members are:

Dr. Mark Barkan, TRIZ Master, MATRIZ Executive Director – The Organizing Committee Chair;

Mr. Kai Plambeck, Consultant for Innovation and Networks, Chamber of Commerce and Industry Heilbronn-Franken (IHK) – The Organizing Committee – Co-Chair.

The Organizing Committee members:

Dr. Oliver Mayer, TRIZ Master – Co-Chairman of the Program Management Committee;

Mr. Valery Souchkov, TRIZ Master – Co-Chairman of the Program Management Committee;

Dr. Yury Fedosov, TRIZ Master – MATRIZ President;

Dr. Simon Litvin, TRIZ Master – Chairman of the TRIZ Master Certification Council (TMCC);

Ms. Christiane Heim, Administrator Business Unit Location Policy, Chamber of Industry and Commerce Heilbronn-Franken (IHK) – local representative.

On September 11th TRIZfest-2019 participants will have an opportunity to attend one or two tutorials. We present six tutorials on the following topics:

TRIZfest-2019 Tutorials

We are delighted to offer the following tutorials on pre-conference day, September 11, 2019. All of the presenters are well known TRIZ Masters, who are actively participate in the training and problem-solving consultancy.

1. Sergei Ikovenko – Design for Patentability.



Dr. Ikovenko, TRIZ Master, is a MATRIZ CEM Chair and an adjunct professor at MIT and Taft University, where he teaches TRIZ. Tutorials at previous TRIZfest conferences as well as multiple workshops on “TRIZ for Patent Strategies” have been offered since 2004. Multiple patent strategies for patent circumvention, patent strengthening, developing dependent claims and identifying “white spots” for patenting could be enhanced with specific application of selected TRIZ tools and unique combinations of them. A number of seminars at Patent Offices in Europe and Asia, adoption of the method by world class corporations confirm the efficiency of the approach.

The tutorial focuses on some new aspects of using TRIZ tools – boosting up the patentability criteria of the innovative design: novelty and non-obviousness (inventive step). Enhancing the novelty criterion with Reverse FOS and Super-Effect Analysis, securing non-obviousness criterion with Function Analysis and maintaining the patentability of Feature Transfer solutions are just some of those new algorithms of using TRIZ tools.

These new developments, as well as the strategies presented since 2004, are a part of the master’s degree Program in International Patent Law funded by WIPO (World Intellectual Property Organization) now and trademarked as DESIGN FOR PATENTABILITY™.

2. Simon Litvin – Creative Imagination Development



Dr. Litvin, TRIZ Master is a world known TRIZ expert. For many years he worked alongside the author of TRIZ Genrikh Altshuller. Simon is one of the developers of such TRIZ tools as Function Analysis, Function Oriented Search, Feature Transfers. For many years Simon served as VP and Chief Scientists at GEN3Partners. At the present, Simon is the President and CEO of the GEN-TRIZ Partners, the company he organized. Simon is very active as a Chairman of MATRIZ TRDC and TMCC. He was one of the first members of MATRIZ Presidium.

Innovation is a creative activity that benefits from both analytical (TRIZ) and inspiration (Creative Imagination) input. The analytical thinking is based on conscious approach and inspiration – on subconscious insights. Creative Imagination Development (CID) is a part of TRIZ that was developed by G. Altshuller, P. Amnuel, S. Litvin and other authors to support the process of innovation. G. Altshuller used to say, “Creativity for an inventor is similar to a courage for a soldier”. TRIZ and

Creative Imagination are complimentary in that Creative Imagination fills in the blanks where TRIZ tools are not fully developed and/or too general. Tools of Creative Imagination Developments are applicable to almost all areas of human activities rather than just innovation and engineering. Managers, scientists, teachers, medical doctors, journalists, etc. could successfully apply these tools.

Creative Imagination Development (CID) Tutorial presents a broad and deep view on creativity and practical tools of its development. The Tutorial is primarily focused on the types of Psychological Inertia and methods and tools for development of creative imagination. It provides participants with fundamental skills for controlling their Psychological Inertia and developing non-trivial ideas.

The Tutorial duration is 4 hours. The Tutorial outline:

- CID and TRIZ. Market need for Creative Imagination – 0.5 hour;
- Introduction to CID: general notions – 0.5 hour;
- Types of Psychological Inertia – 1.5 hour:
 - Inertia of functional predisposition
 - Inertia of terminological predisposition
 - Inertia of form predisposition
 - Inertia of predisposition to parameters, states and characteristics
 - Inertia of non-existent prohibition
 - Inertia of predisposition to action and sequence of actions
- Methods and tools for development of creative imagination 1 hour:
 - Systematic Operator (9-screens);
 - Method of Numbered Axis;
 - Snowball Method;
 - Method of focal objects;
 - Method of Robinson Crusoe.
- CID application in the innovation process – 0.5 hour

3. Victor Fey – How to Find Your Innovation Sweet Spot



Mr. Fey, TRIZ Master, is the Principal of The TRIZ Group, LLC, and a former close associate of Genrikh Altshuller. Victor has over 35 years' experience in TRIZ research, training and application. Since The TRIZ Group's inception in 1995, Victor has collected more than two decades of consulting experience serving the Global 1000. His work has ranged the gamut from teaching, coaching and consulting, to facilitating and leading cross-functional teams in delivering critical breakthrough product and technology solutions. Only at Hyundai-Kia Motors, his consulting effort resulted in obtaining over 100 patents with an estimated ROI of \$100 million. From 1997 through 2014, he was an Adjunct Professor at Wayne State University, where he taught the first graduate course in TRIZ in the West.

He has lectured on the subject at MIT, Stevens Institute of Technology, Chalmers University, Technion, and others. He is a co-founder of the Altshuller Institute for TRIZ Studies and Chairman of its Education Committee. He also chairs the Committee for TRIZ Development of the MATRIZ TRDC. His books include *Effective Innovation: The Development of Winning Technologies*, published by ASME Press and *Innovation on Demand: New Product Development Using TRIZ*, released by Cambridge University Press (translated to Korean; Chinese translation is scheduled for 2019).

Innovation is not a goal – it's a tool to achieve specific business objective, and it's effective only if it satisfies a need or creates a new one. Predicting future customer needs is imperative for business success in the increasingly competitive marketplace.

Companies spend fortunes on market research, yet most products launched every year fail. The failed products either miss or underserve customer needs. Customer surveys, focus groups, anthropological

studies produce tons of data. Still, the question “What will our customers want next?” remains as hard to answer as ever. The rapid changes in markets make answering this question a key challenge facing most businesses.

This tutorial will acquaint you with TRIZ-based tools for discovering unmet needs and rigorous identification of the most promising innovation opportunities.

4. Valeri Souchkov – Trends of innovative development of business systems and business products



Mr. Souchkov, TRIZ Master, is one of the founders of the Invention Machine Corporation. He was instrumental in the development of many modules of the Invention Machine software. His activities in TRIZ span over 25 years. He is a TRIZ teacher, known to many people in many countries, as well as a skillful facilitator. He is a member of the MATRIZ soon to be published online journal TRIZ Review Editorial Board.

This tutorial will present a number of general and specific trends of innovative evolution of business systems and business products. S-curve and bell-curve of evolution of business systems will be explained. A number of more specific patterns and lines will be shown which can be used to develop business systems and business products (for example, services) both at system and supersystem levels.

5. Oleg Feygenson –Application of Advanced Function Approach for Information Search



Dr. Feygenson, TRIZ Master, worked in various capacities for Algorithm, where he managed numerous projects and conducted TRIZ training seminars for many companies. For the last 5 years, Oleg works as a TRIZ expert at Samsung.

To make the right decision in any area of our professional and daily life, we need access to the information that will help us do that. Fortunately, in today’s computer age environment, a huge amount of information is out there and available to us: 2.5 quintillion bytes of information are created daily, and ninety percent of all the data in the world was generated

within the last two years. Unfortunately, extracting the information we need from all of this is like searching for a needle in a haystack .

In 2017 there were 5.2 billion daily searches in Google. But Google searches are time-consuming and, moreover, do not guarantee good results. We urgently need tools to help us search for and select information efficiently.

This is where Modern TRIZ comes in: it offers a number of analytical and problem solving tools which dramatically enhance information search and analysis. During the tutorial we will discuss how the TRIZ approach can be used for obtaining the data you need and making the most of it.

Topics to be covered:

An overview of methods currently used in information search and analysis, including Semantic Search and Big Data Analysis.

Changing the paradigm from “the information we have” to “the information we need”.

TRIZ tools that support information searches are:

- Function-Oriented Search: identifies technologies known in industries outside the industry of interest
- Resource Analysis: identifies and utilizes the most efficient resources among those available

- Trends of Engineering System Evolution: used to indicate areas or fields in which data should be collected
- Predictive data analysis for identifying data patterns before planning any actions.

6. Valeriy Prushinskiy - Basics of Hybridization



Mr. Prushinskiy, TRIZ Master, is one of the developers of Hybridization, a very potent TRIZ tool. After many successful years with Ideation, he is now working at Samsung as TRIZ expert.

In this tutorial, Valeriy will address the following subjects:

- Competitive and Alternative Systems (Definition, similarities and differences).
- Hybridization of Alternative Systems.
- Basic schemes of hybridization (Addition, Subtraction, Multiplication and Division).
- Hybridization of multiple systems
 - Consecutive hybridization approach
 - Simultaneous Hybridization approach
 - Modern trends: Hybridization and IoT, Accessories, Influence of SNS
 - Hybridization and services
- Conclusion: General Scheme of Tech Evolution through Hybridization.

In the afternoon of the first day of the conference we will conduct a session on TRIZ-Pedagogy. In this session, leading developers and practitioners of TRIZ-Pedagogy will discuss the modern methods of developing creative and critical thinking skills in grade school and university students. Interestingly, these same methods are very effective when working with adults in various fields of human activity. We will discuss the reasons the existing educational system is not compatible with today's world, as well as the modern methods for the development of the vital skills, required for succeeding in the dynamic world we live in today. We invite all people, interested in the subject, to sign up for this session. The fee for this session is 50€, free if you participate in the entire conference. Provided sufficient interest, there will be German/English interpreting.

On the last day of the conference a session of TRIZ Master Certification Committee will take place. The XI MATRIZ Congress is also scheduled for the last day of the conference.

OFFICIAL LANGUAGE

The official language of the conference is English. All abstracts and papers must be submitted in English. Submissions in all other languages will not be considered. However, there will be a German language session, which will be served with simultaneous translation. All the papers and presentation slides must be in English.

CONFERENCE VENUE

Educational Campus of the Dieter-Schwarz-Stiftung (charitable foundation)
Am Bildungscampus 3 74076 Heilbronn
<https://www.bildungscampus.org/#map>.

CONFERENCE FEES

The standard conference fee is **500€**, which includes conference materials, lunches, refreshments and the conference cocktail party and dinner. Members of the Chamber of Commerce and Industry Heilbronn-Franken (IHK) receive a discount, their participation fee is **350€**. To receive this rate, the participants must submit a confirmation from IHK. Conference only fee is **300€**. Student conference only fee is **50€**. Students, who would like to participate in social activities should pay an additional **200€**.

FURTHER INFORMATION

For questions, please contact Dr. Mark Barkan at mbarkan@matriz.org, or Mr. Kai Plambeck at Kai.Plambeck@heilbronn.ihk.de.

Please continue to visit the MATRIZ website for latest information.

TRIZfest-2019 Organizing Committee