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Editor's note: This item is also listed in the Calendar section of the TRIZ Journal.

Information Letter

As TRIZ is getting more and more widely and actively used by the leading industrial corporations, prominent educational institutions and engineering community all over the world, it is very important to prepare and educate TRIZ experts that serve as nuclei in propagation TRIZ and mentors for TRIZ practitioners.

International TRIZ Association (MA TRIZ) is announcing a TRIZ Workshop for Advanced TRIZ Users that will take place in St. Petersburg, Russia on May 11 – 13, 2004. The Workshop will be dedicated to advanced TRIZ topics that have not been published or described well enough in languages other than Russian.

The material of the Workshop includes "TRIZ ++" methodology, Functional Synthesis of Engineering Systems, Inverse Analysis, Development of the Creative Imagination, TRIZ in Arts Systems and other advanced topics (a tentative agenda is attached) The unique topics will be presented by the leading TRIZ researchers worldwide.

The participants of the event will have an opportunity to meet the most prominent TRIZ Masters such as Voluslav Mitrofanov and others as well as have personal discussions with the members of MA TRIZ Board (Presidium). TRIZ champions from leading companies worldwide are expected to take part in the workshop.

The Workshop will take place in St. Petersburg – one of the most beautiful and amazing cities in the world, "Venice of the North". In addition to getting valuable knowledge in advanced TRIZ, networking with TRIZ colleagues from different continents, meeting the most experienced and oldest TRIZ Masters, the attendees will enjoy the fascination of old St. Petersburg with its palaces, canals, drawbridges and the famous Hermitage – the Winter Palace of Russian Tsars. Warm May weather is the best time for visiting St. Petersburg.

The Workshop will be run in English (or with the translation into English). The organizers would like the Workshop to be very interactive, that is why the number of participants is relatively limited – up to 15 (maximum). The registration is on "first come, first served basis". The fee for three days of the Workshop is 1,500 USD (includes hand-outs, Certificates of Completion, lunches every day and one dinner – sampling Russian cuisine).

MA TRIZ can arrange letters of invitation, help with information on obtaining Russian visa and hotel reservation.

For registration and/or additional information, please contact Dr. Sergei Ikovenko, MA TRIZ VP for International Development at:

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Advanced TRIZ User Workshop in St. Petersburg
May 11-13, 2004

Agenda

Day 1.

Welcome

1. **TRIZ ++ ™ Methodology.**

"TRIZ ++" is an advanced TRIZ-based Innovation Methodology. However TRIZ & "TRIZ++" have different problem-solving philosophies: while classical TRIZ focuses on generating a totally new inventive solution, "TRIZ ++" concentrates on how to adapt an existing technology for solving the problem. "TRIZ++" can handle large-scale technology-related business problems that traditional TRIZ cannot. "TRIZ++" uses an extensive set of tools like "TRIZ++ Benchmarking", Cause-Effect Chain Analysis, Flow Analysis and others).
This part of the workshop is presented by Gen3Partners, the creator of "TRIZ ++" Methodology of Innovative Consulting.

2. **Benchmarking of Engineering Systems using TRIZ.**

Benchmarking – is a procedure of selecting the best existing engineering systems as the base one for further analysis and improvement. Some traditional engineering criteria can be used for this purpose as well as so called Maximum Potential Criterion that is connected with the limits of the system development from S-Curve Analysis. Besides the base system, the Benchmarking Techniques allow to determine "champion" systems on specific parameters that will be further used for Feature Transfer part of the project

3. **Functional Synthesis of Engineering Systems.**

Functional Synthesis of Technological Processes is designed for radical changes/improvement of the processes. It focuses on the total redesign of an existing process and creation of an new "cause-effect" structure. The method is based on identifying value-added productive functions at the top hierarchal level, their recombining and building a new model of the technological process with the further problem identification for the model implementation.

4. **An important part of TRIZ – Development of Creative Imagination.**

There is a part of TRIZ that does not have an immediate problem-solving output and because of that it has been neglected in recent TRIZ publications in the USA and Europe.
There is not much have been translated into English and other languages either. However. G. Altshuller paid a lot of attention to this area – Development of Creative Imagination and its methods. This part of the workshop is dedicated to the Development of Creative Imagination part of TRIZ.

Q & A
Day 2

1. **Trends of Engineering System Evolution – a detailed guide.**

Laws and Trends of Engineering System Evolution is an interrelated collection of statistically proven evolutionary algorithms/lines that describe the sequential transitions of engineering systems from one state to another and these generic lines are true for a big number of engineering systems or large groups of

engineering systems. The Laws are statistically derived and are a result of a kind of "natural selection", "survival of the fittest" in the technical world. Because various engineering systems have very similar problems in the process of their evolution, the problem solving approaches are stereotypical as well. The Laws of evolution are well-organized and structured list of these strong moves of winning engineering systems, because of which the winners get a competitive advantage in comparison to others. The Laws and Trends form a hierarchal structure and work as mechanisms of each other. This part of the material presents a detailed guide for using the Laws for Evolutionary Analysis.

2. **"Supereffect" Approach.**

Supereffect is an additional advantageous consequence/feature that can be achieved as a result of some changes, introduced into the system, in addition to a major useful effect for which the abovementioned changes were performed. The differences between the supereffects of the first order and the supereffects of the second order are discussed.

3. **Inverse Analysis.**

Inverse Analysis is a method of searching new applications of the existing technologies (including device and materials). Inverse Analysis is based on a procedure of identifying the functions of the engineering system, their generalization and outlining areas of application where similar functions are needed. The method includes function analysis and composition of morphological matrices.

4. **Presentations of the participants, discussions.**

Q & A

Day 3

1. **Laws of Evolution in Arts System. TRIZ and arts**

This part of the workshop (half a day) is dedicated to a fascinating and not well-known abroad topic – Laws of evolution in arts. The material is developed and will be presented by the leading TRIZ researcher in this area worldwide, Mr. Julii Murashkovski.

2. **Function-oriented information search.**

Function-Oriented Search is a method for searching ready engineering solutions that can be used for performing (or improving) a necessary function. The method includes function identification for action, object and the conditions of performance as well as identification of the leading branches of science and technology where the function in question is supposed to be performed best. The final part of the method is a search for existing solutions and formulation of problem statements on adaptation of the existing solutions to the analyzed engineering system.

3. **Meeting with members of MA TRIZ Board and prominent TRIZ Masters**

Conclusion