

Valeriy Prushinskiy

Summary of Qualifications

Valeriy Prushinskiy specializes in solving problems, directing next generation and adapting products for various markets. Certified TRIZ (Theory of Inventive Problem Solving) Specialist. Twenty years of applying/development of TRIZ methodology. Author of the book HYBRIDIZATION – The New Warfare in the battle for the Market. Development and delivery of various TRIZ courses for engineers. Working out and delivery of TRIZ course for high school students and training course of creativity development for elementary school students. Multiple technology and engineering leadership positions.

Extensive Inventive Problem Solving (IPS) and Directed Evolution (DE) project management experience from data collection to Innovation Situation Questionnaire, through Problem Formulation, Inventive Problem Solving, Concept Development and Evaluation of Results. Development and delivery of intermediate and final reports/presentations. Participation in 87 projects carried out by Ideation International Inc. Multiple seminars on advanced TRIZ aspects in framework of the IPS/DE projects. Enhancement of intellectual portfolios and mapping of potential product evolution.

Experience

2010 – Present Samsung Mobile Display Yongin-City, Korea

Principal Engineer, TRIZ Team, Technology Planning Department

2009 – 2010 Natural Innovations LLC Farmington Hills, MI

CEO

TRIZ Consulting and Analytical Services.
Development of TRIZ Software Module (Ideal Matrix Plus).

2008 – Present SkinTreet, LLC Ann Arbor, MI

Partner

Development of novel product platform of multipurpose hand held device for skin-based diagnostics and treatment (Great Lake Entrepreneurs' Quest finalist).

2008 – Present Virtual Products, LLC Ann Arbor, MI

Partner

Development of novel product platform of computer input devices for physical interaction with virtual/gaming environment (3rd place award at Great Lake Entrepreneurs' Quest for development of low cost "Exergaming" ramp that allows full body interaction with digital environments such as video games, computer games and Second Life).

2006-2008 Ideation International, Inc. Farmington Hills, MI

Director of Analytical Services

Project "Conceptual Design / Directed Evolution of Products in Sensory

Relaxation Category"

Study of existing products and revealing of trends. Conceptual development of novel product platform. Mapping of potential evolutionary trends.

Project “Directed Evolution of Packaged Ice Cream”

Revealing and analysis of existing trends. Conceptual development of novel types of ice cream packaging. Working out a map of potential product evolution.

Project “Intellectual Portfolio Analysis and Enhancement”

Patent analysis, enhancement system and method for design. Creation and installation of implant-supported dental prostheses.

Project “CoolPik Part Transfer Problem”

Application of inventive problem solving process for part transfer problem for injection molding machine.

1998–2006

Ideation International, Inc.

Southfield, MI

Project Manager, TRIZ (Theory of Inventive Problem Solving) Specialist

Major Projects:

New Concepts of Ice Cream for Kids

Study of trends, evolution and existing ice cream product population. Mapping of potential evolutionary trends, assessment and conceptual development of new product platform.

New Generation of Dental Implants

Enhancement of Intellectual Portfolio – conceptual design of novel implants, surgical guides and training accessories.

Directed Evolution of Early Learning Product

Conceptual development of product family for expecting mothers, and infants from 0 to 48 months.

Conceptual Design of Drug Delivery and Electro-Stimulation Device

Conceptual development of device for electrical stimulation and electro-phoretic drug delivery device for oral, GI tract, rectal and vaginal applications.

Improvement of Laser Devices for Layout and Leveling

Conceptual development of product family with enhanced functionality for construction layout and leveling works.

Construction Toy Set

Conceptual development of novel construction toy set, enabling building of complex structures from plastic panels.

Project “Improvement of Personal Alert Safety System(PASS)”

Development of new evolutionary resources for PASS system. Formulation of new directions for evolutionary development of personal alert system (the product is mostly used by firefighters).

Project “Improvement of Orthopedic Cast”

Assessment of existing problems, conceptual development of novel immobilizing device, and experimental application of concept.

Project “Light Weight Proppant Problem”

Study of the existing population of products for propping oil/gas fractures. Project activity had resulted in 41 new concepts, falling into four groups (first group – development within the framework of the traditional paradigm, groups two, three and four – concepts of novel products).

Project “Elimination of Leakage of Hydraulic System”

Development of a set of solutions to eliminate and prevent leakage of hydraulic systems.

Project “Conceptual Design of Endoscopic Instruments”

Development of new concepts of the transformable endoscope; new family of ports for intraluminal and transgastric endoscopic access; specialized flexible instruments for endoscopic operations.

Project “Improvement of Design of Restraint System Electronic Module”

Facilitation of conceptualization sessions on improving design for manufacturing.

Project “Directed Evolution of Outdoor Cleaning”

Assessment of existing intellectual property and evolution of technology in the area of outdoor cleaning. Conceptual development of a new generation of products.

Project “New Concepts of Endoscopic Surgery”

Assessment of existing intellectual property and evolution of technology. IP enhancement through development of new concepts. Conceptual development of novel IP portfolio for licensing (provisional Patent Applications No. 60/499,539 and 60/507,837 – set of 14 novel solutions on conceptual design of operating endoscope; port for operative endoscope intra-peritoneal access; T-fastener gun for full thickness excision of gastric and colon lesions, intraluminal anti-obesity and anti-reflux operations; external and internal rigidifiers for colonoscopy, gastric and colon polyp excision; novel methods of hernia repair.)

Project “Patent Analysis of Fluid Coolant Dispensing Unit”

Patent analysis, resulting in locating new evolutionary resources, and conceptual design of a new generation of products. Mapping of product evolution and potential lines of evolution.

Project “Cathode Solution Line Corrosion”

Assessment of evolution of the technological process. Failure analysis and inventive problem solving for failure elimination. Mapping of technological evolution and potential next step solutions.

Results: 1M savings during first year.

Project “Directed Evolution of Industrial Automation System”

Deconstruction of two families of patents. Patent analysis to avoid potential pitfalls, development of new concepts for industrial automation, including mapping potential lines/scenarios of evolutionary development.

Project “Car Door System Directed Evolution”

Analyzing and evaluation of car door evolution. Locating existing problems and eliminating via inventive problem solving. Development of potential products and scenarios for future evolution.

Project “Improvement of consumer products”

Analysis and assessment of evolutionary development of product families. IP enhancement and conceptual development of novel hair clippers, foot baths, hair dryers and hair curlers.

Project “Improving of Oil Recovery”

Analysis of existing IP portfolio and evolution of fluid displacement methods. Working out novel concepts of improved oil recovery.

Project “Improving Reliability of Expansion Joints”

Study of existing situation. Revealing of possible failure mechanisms. Inventive problem solving for generation of solutions eliminating undesired effects.

Project “Directed Evolution of Rigid Plastic Packaging”

Analysis of existing IP portfolio and product evolution. Generation of next-step solutions and potential scenarios of future evolution.

Project “Fuel Tank Imbalance Problem”

Revealing new resources and possible mechanisms of fuel tank imbalance. Data collection and study of previous attempts to fix the problem. Inventive problem solving: developing set of suggestions for elimination of harmful effect.

1993–1998 Intercai Antwerpen, Belgium

Local Manager

Telecommunication Consulting. Implementation of technical assistance projects.

1987–1993

Central Asian Science Research and Design Institute for Technical Assistance Construction.

Tashkent, Soviet Union.

Engineer/Designer, Lead Engineer

Design, manufacturing and technological support of formwork technology for monolithic concrete construction.

Education

2001

Certificate of Specialist of TRIZ

(Issued by International Association of TRIZ)

1989 – 1991

All-Union Institute of Theory of Inventive Problem Solving (TRIZ), Kishinev, Soviet Union.

TRIZ training for beginners, advanced users, practitioners and developers.

1981–1986

Publications

HYBRIDIZATION

THE NEW WARFARE IN THE BATTLE FOR THE MARKET

Val Prushinskiy, Gafur Zainiev, Vladimir Gerasimov

ISBN 1-59872-069-4

Hybridization of Alternative Systems. Basic Schemes of Hybridization. Hybridization of Populations. V. Prushinskiy. Creativity as an Exact Science – Vinci, Italy, Annual Conference, September 20-22, 2010.

Basics of Hybridization for new concept development. Valeriy Prushinskiy, Minsoo Kim, HeungYeol Na, Wonsik Hyun. Global TRIZ Conference 2011 in Korea. March 9-11, Seoul Korea, 2011.

Case Study: Applying TRIZ for improving endoscopic instruments and procedures. Valeriy Prushinskiy, Minsoo Kim, HeungYeol Na, Wonsik Hyun. Global TRIZ Conference 2011 in Korea. March 9-11, Seoul, Korea, 2011.

Hybridization of alternative systems and multi-step hybridization for new concept development. Valeriy Prushinskiy. TRIZ Conference. May 7, 2011, Taipei, Taiwan.

Applying TRIZ to Breakthrough Innovations in Healthcare. V. Prushinskiy. Annual Conference of the Altshuller Institute for TRIZ Studies, 2010.

Hybridization of Alternative Systems. Basic Schemes of Hybridization. Hybridization of Populations. V. Prushinskiy. Creativity as an Exact Science – Vinci, Italy, Annual Conference, September 20-22, 2010.

Operating Systems for Innovation: What Roles do they play in technology management and how do they increase the value of intellectual assets? Zion Bar-El, Valeriy Prushinskiy. 31st Annual Great Lakes Biomedical Conference. From Ideation to Product Launch, 2007.

Joint Application of Hybridization and Idealization Approach. V. Prushinskiy. 4th Annual Conference of the Altshuller Institute for TRIZ Studies, 2002.

Typical Failure Analysis Problems: Their Symptoms and Recommended Solution Procedures. Vladimir Proseanic, Svetlana Visnepolschi, Valeriy Prushinskiy. 4th Annual Conference of the Altshuller Institute for TRIZ Studies, 2002.

Reconstruction of Technological Evolution through Hybridization of Technical Systems. V. Prushinskiy, V. Gerasimov, G. Zainiev. 3rd Annual Conference of the Altshuller Institute for TRIZ Studies, 2001.