

# TRIZ FUTURE 2016



Wrocław University  
of Science and Technology

The European TRIZ Association

**ETRIA**

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## TRIZ Future Conference 2016

WROCŁAW, POLAND 24<sup>TH</sup> -27<sup>TH</sup> OCTOBER 2016

### SESSIONS SCHEDULE

#### DAY 1<sup>ST</sup> MONDAY: 24.10.2016

DAY 1 <sup>ST</sup> MONDAY: 24.10.2016			
9:00	Room: Main Hall		
	Conference registration		
10:00	Room: 10D		
(120 min)	TRIZ Tutorial for beginners - Mateusz Słupiński		
11:30	Room: Foyer		
(60 min)	Welcome brunch		
12:30	Room: 10D		
(30 min)	<p><b>Welcome speech</b></p> <p>Pavel Livotov, President of ETRIA, European TRIZ Association</p> <p><b>Introduction to academic innovation</b></p> <p>Cezary Madryas, Rector, Wrocław University of Science and Technology</p> <p><b>Organisational announcements</b></p> <p>Sebastian Koziółek, Local committee chair</p>		
<b>KEYNOTE PRESENTATION</b>			
13:00	<p><b>Opening keynote: TRIZ Mysterious Contradiction</b></p> <p>Tomasz Arciszewski, Successful Education LLC; George Mason University Fairfax, VA, USA</p>		
(60 min)			
14:00	Room: Foyer		
(30 min)	Coffee break		
14:30	Room: 10D	Room: 113	Room: 114
(2 hours)	<p><b>Heuristic problems in automation and control design: what can be learnt from TRIZ?</b></p> <p>Leonid Chechurin<sup>1</sup>, Viktor Berdonosov<sup>2</sup>, Leonid Yakovis<sup>3</sup></p> <p><sup>1</sup>Lappeenranta University of Technology, Finland; <sup>2</sup>Komsomolsk-na-Amure State Technical University, Russia; <sup>3</sup>St. Petersburg State Polytechnical University, Russia</p> <hr/> <p><b>Aspects of teaching TRIZ</b></p> <p>Christoph Dobrusskin</p> <p>Philips Innovation Services, The Netherlands</p> <hr/> <p><b>Identification of laws of engineering systems evolution in mobile phones evolution. Could it be that something has gone wrong?</b></p> <p>Kai Hiltmann, Nara Udumyan</p> <p>Coburg University of Applied Sciences and Arts, Germany</p> <hr/> <p><b>Adaptive problem Sensing and Solving Model (APSS – Model) inspired by the Cynefin Framework and its application of TRIZ</b></p> <p>Alexander Czinki<sup>1</sup>, Claudia Hentschel<sup>2</sup></p> <p><sup>1</sup>University of Applied Sciences Aschaffenburg, Germany <sup>2</sup>University of Applied Sciences HTW Berlin, Germany</p>	<p><b>A Brief Theory of Inventive Problem Solving (BTIPS)-an Approach in Teaching, Learning and Practice</b></p> <p>Zbigniew Marian Bzymek</p> <p>University of Connecticut, USA</p> <hr/> <p><b>Optimizing motor performance by using TRIZ methodology</b></p> <p>Matej Hohnjec<sup>1</sup>, Dušan Gošnik<sup>1</sup>, David Koblar<sup>2</sup></p> <p><sup>1</sup>ZEN d.o.o., Slovenia; <sup>2</sup>Domel d.o.o., Slovenia</p> <hr/> <p><b>Developing Growth Portfolio with TRIZ Structures</b></p> <p>Michael Ohler, Philip Samuel, Naresh Shahani, Derek Bennington, Riaan Britts</p> <p>BMGI, Germany</p> <hr/> <p><b>Mobile biogas station design – the TRIZ approach</b></p> <p>Mariusz Ptak<sup>1</sup>, Sebastian Koziółek<sup>1</sup>, Damian Derlukiewicz<sup>1</sup>, Marek Mysior<sup>1</sup>, Mateusz Słupiński<sup>2</sup></p> <p><sup>1</sup>Wrocław University of Science and Technology, Poland; <sup>2</sup>Centre for Systems Solutions, Poland</p>	<p><b>A proposal for automation of conceptual design stage in Architecture-Engineering-Construction (AEC) projects</b></p> <p>Ivan A. Renev</p> <p>Lappeenranta University of Technology Finland</p> <hr/> <p><b>TRIZ potential for IT projects</b></p> <p>Monika Woźniak</p> <p>University of Gdansk, Poland</p> <hr/> <p><b>Opportunities for integrating TRIZ and systematic innovation tools into large scale Agile software development</b></p> <p>Teemu Toivonen</p> <p>Nitor Delta, Finland</p> <hr/> <p><b>Trend of Increased Addressing of Human Senses – Near Field Senses</b></p> <p>Oliver Mayer</p> <p>GE Global Research, Germany</p>
17:00	Room: SKS 1 <sup>st</sup> floor		
(4 hours)	Networking evening with snack bar in a relaxed atmosphere		

# DAY 2 TUESDAY: 25.10.2016

<b>08:30</b>	<b>Room: Main Hall</b>		
	<b>Conference registration</b>		
<b>09:00</b>	<b>Room: 10D</b>		
(30 min)	<b>Keynote Speech</b> Piotr Sroka, country leader at WABCO Wrocław, PL		
<b>09:30</b>	<b>Room: 10D</b>		
(30 min)	<b>Keynote Speech</b> Jacek Czech, Business development executive at National Chamber of Commerce, PL		
<b>10:00</b>	<b>Room: Foyer</b>		
(30 min)	<b>Coffee break</b>		
<b>10:30</b>	<b>Room: 10D</b>	<b>Room: 113</b>	<b>Room: 114</b>
(2 hours)	<p><b>What a well-trained TRIZ user can learn from other design methodologies: an initial speculation</b> Leonid Chechurin<sup>1</sup>, Mika Lohtander<sup>1</sup>, Yuri Borgianni<sup>2</sup> <sup>1</sup>Lappeenranta University of Technology, Finland; <sup>2</sup>Free University of Bozen-Bolzano, Italy</p> <p><b>A long-term strategy to spread TRIZ in SMEs. Analysis of Bergamo's experience</b> Davide Russo, Daniele Regazzoni, Caterina Rizzi University of Bergamo, Italy</p> <p><b>Idea Generation with Substance-Field Analysis: the Influence of Prior Knowledge and Practical Experience</b> Iouri Belski<sup>1</sup>, Anne Skiadopoulou<sup>2</sup>, Guillermo Aranda-Mena<sup>1</sup>, Gaetano Cascini<sup>3</sup>, Davide Russo<sup>4</sup> <sup>1</sup>RMIT, Australia; <sup>2</sup>Swinburne University of Technology, Australia; <sup>3</sup>Politecnico Milano, Italy; <sup>4</sup>University of Bergamo, Italy</p> <p><b>Problem definition and identification of contradictions in the interdisciplinary areas of mechatronic engineering</b> Didier Casner<sup>1</sup>, Rémy Houssin<sup>2</sup>, Pavel Livotov<sup>1</sup>, Jean Renaud<sup>2</sup> <sup>1</sup>Offenburg University, Germany; <sup>2</sup>INSA Strasbourg, France</p>	<p><b>Lessons for TRIZ from Design Thinking &amp; Lean 3P</b> Michał Hałas Grupa ODITK, Poland</p> <p><b>How to Generate Simple Model Solutions Systematically from Function Analysis Diagram</b> Min-Gyu Lee<sup>1,2</sup> <sup>1</sup>Lappeenranta University of Technology, Finland; <sup>2</sup>QM&amp;E Innovation, South Korea</p> <p><b>Structured activation of vertex entropy (SAVE): another way around creative problem solving for non-technical applications</b> Stelian Brad Technical University of Cluj-Napoca, Romania</p> <p><b>Why TRIZ Popularity is Declining</b> Sergey Sobolev<sup>1</sup>, Oleg Abramov<sup>2</sup> <sup>1</sup>Algorithm Ltd., Russia; <sup>2</sup>Siemens LLC, Russia</p>	<p><b>Conceptual framework for marketing communication management with a qualitative and system-oriented approach</b> Joanna Kijewska, Marek Goliński Poznan University of Technology, Poland</p> <p><b>TRIZ and innovation of pressing</b> Bohuslav BUSOV<sup>1</sup>, Vladimír DOSTÁL<sup>2</sup>, Milada BARTLOVÁ<sup>1</sup> <sup>1</sup>Brno University of Technology, Czech Republic; <sup>2</sup>TF, Czech Republic</p> <p><b>Product development using heuristic-systematic approach: a case study</b> Bartosz Pryda, Marek Mysior Wroclaw University of Science and Technology, Poland</p> <p><b>Cause-Effect Chains Analysis using Boolean algebra</b> Jerzy Chrzęszcz<sup>1,2</sup>, Piotr Salata<sup>1,2</sup> <sup>1</sup>Warsaw University of Technology, Poland; <sup>2</sup>Pentacomp Systemy Informatyczne S.A., Poland</p>
<b>12:30</b>	<b>Room: SKS 1<sup>st</sup> floor</b>		
(90 min)	<b>Lunch</b>		
<b>14:00</b>	<b>Room: 10D</b>	<b>Room: 113</b>	<b>Room: 114</b>
(90 min)	<p><b>TRIZ and turbojet engine innovation</b> Bohuslav Busov<sup>1</sup>, Zdeněk Katolický<sup>2</sup>, Milada Bartlová<sup>1</sup> <sup>1</sup>Brno University of Technology, Czech Republic; <sup>2</sup>Air Division of PBS, Czech Republic</p> <p><b>Combining TRIZ and open innovation, a new promising perspective for enhancing corporate innovation processes</b> Masih Hanifi<sup>1</sup>, Remy HOUSSIN<sup>2</sup>, Denis Cavallucci<sup>1</sup>, Simon Fuhlhaber<sup>1</sup> <sup>1</sup>INSA, France; <sup>2</sup>University of Strasbourg, France</p> <p><b>TRIZ-based approach for process intensification and problem solving in process engineering: concepts and research agenda</b> Didier Casner, Pavel Livotov, Mas'udah Mas'udah, Patricia Kely da Silva Offenburg University, Germany</p>	<p><b>The Application of TRIZ to exclude Product Failures caused by unintended Operation Errors</b> Juergen Hess BSH Home Appliances Group, Wohlrabedamm 15, 16329 Berlin</p> <p><b>Towards an expansion of TRIZ methods into the strategy creation space</b> Michael Ohler<sup>1</sup>, Philip Samuel<sup>2</sup>, Naresh Shahani<sup>3</sup>, Derek Bennington<sup>4</sup> <sup>1</sup>BMGI, Germany; <sup>2</sup>BMGI, USA; <sup>3</sup>BMGI, India; <sup>4</sup>The TRIZ Journal, USA</p> <p><b>TRIZ to support creation of innovative shared value business initiatives</b> Stelian Brad Technical University of Cluj-Napoca, Memorandumului 28, 400114 Cluj-Napoca, Romania</p>	<p><b>Method of time-dependent TRIZ function ranking</b> Nikolai Efimov-Soini, Leonid Chechurin, Ivan Renev, Kalle Elfvingren Lappeenranta University of Technology, Finland</p> <p><b>R&amp;D in Poland – is the country close to a knowledge-driven economy?</b> Dorota Chybowska<sup>1</sup>, Leszek Chybowski<sup>2</sup> <sup>1</sup>Maritime University of Szczecin, Poland; <sup>2</sup>Maritime University of Szczecin, Poland</p> <p><b>Is Poland an innovative country?</b> Dorota Chybowska<sup>1</sup>, Leszek Marek Chybowski<sup>2</sup> <sup>1</sup>Maritime University of Szczecin, Poland; <sup>2</sup>Maritime University of Szczecin, Poland</p> <p><b>A Praxeological Model of Creative Actions in the Field of Mechanical Engineering</b> Maksymilian Leszek Smolnik AGH University of Science and Technology, Poland</p>
<b>15:30</b>	<b>Room: Foyer</b>		
(30 min)	<b>Coffee break</b>		
<b>16:00</b>	<b>Room: 10D</b>	<b>Room: 113</b>	
(90 min)	<p><b>TRIZ/CrePS approach to the social problems of poverty: 'Liberty vs. Love' is found the Principal Contradiction of the Human Culture</b> Toru Nakagawa<sup>1,2</sup> <sup>1</sup>Osaka Gakuin University, Japan; <sup>2</sup>CrePS Institute, Japan</p> <p><b>Enhancing Patent Portfolio Using TRIZ Workshops</b> Frank Zeihsel<sup>1</sup>, Christian M. Thurnes<sup>2</sup>, Jan Schulze<sup>3</sup> <sup>1</sup>Synnovating GmbH, Germany; <sup>2</sup>University of Applied Sciences Kaiserslautern, Germany; <sup>3</sup>Thyssenkrupp Intellectual Property GmbH, Germany</p> <p><b>Effective Design Approach with Inventive Principles to Reputational Damage Risk on the Internet</b> Manabu Sawaguchi<sup>1</sup>, Satoru Utsugi<sup>2</sup> <sup>1</sup>Waseda University, Japan; <sup>2</sup>NS Solutions, Japan</p>	<p><b>Can TRIZ functional analysis improve FMEA</b> Christian Spreafico, Davide Russo University of Bergamo, Italy</p> <p><b>Tech-Finder: a Dynamic Pointer to Effects</b> Davide Russo<sup>1</sup>, Tiziano Montecchi<sup>2</sup>, Antonio Caputi<sup>1</sup> <sup>1</sup>University of Bergamo, Italy; <sup>2</sup>Bigflo srl, Italy</p>	
<b>19:30</b>	<b>Room: SKS main hall</b>		
(5 hours)	<b>GALA-DINNER + BEST PAPER AWARD</b>		

## DAY 3 WEDNESDAY: 26.10.2016

08:30	Room: Main Hall		
	Conference registration		
<b>KEYNOTE PRESENTATIONS (Room: 10D)</b>			
09:00	<b>Keynote: The Future of Making Things – How to Meet Users Demands</b> Radosław Cieślak, Autodesk, PL		
(30 min)			
09:30	<b>Keynote: TRIZ: A Foundation for Increasing Human Intelligence</b> Dana Clarke, Vermilion Institute of Technology, USA		
(60 min)			
10:30	Room: Foyer		
(30 min)	Coffee break		
11:00	Room: 10D	Room: 113	Room: 114
	<b>Applying TRIZ and Lean Tools for Improving Development Processes. A Case Study from Industry: Improving the Testing Process for SW and HW-related Products</b> Martin Kiesel <sup>1</sup> , Jens Hammer <sup>2</sup> <i><sup>1</sup>Siemens AG, Germany; <sup>2</sup>Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany</i>	<b>Design for change: disaggregation of functions in system architecture by TRIZ-based design</b> Sebastian Koziółek <i>Wrocław University of Science and Technology, Poland</i>	<b>Towards Experience Capitalization for Inventive Problem Solving</b> Pei ZHANG <sup>1</sup> , Cecilia ZANNI-MERK <sup>2</sup> , Denis CAVALLUCCI <sup>3</sup> <i><sup>1</sup>LGeCo (Design Engineering Laboratory), France; <sup>2</sup>SDC Team, ICube, France; <sup>3</sup>INSA Strasbourg, France</i>
	<b>Development of creative education materials for students at middle and high school using design thinking process with simplified TRIZ</b> Kyeongwon LEE <i>Korea Polytechnic University, South Korea</i>	<b>TRIZ based problem solving of tile manufacturing system</b> Sebastian Koziółek <sup>1</sup> , Mateusz Słupiński <sup>2</sup> <i><sup>1</sup>Wrocław University of Science and Technology, Poland; <sup>2</sup>Centre for Systems Solutions, Poland</i>	<b>Statistical use of the TRIZ contradiction matrix, experimentation on a ball bearing technical issue</b> Elie Aupetitgendre <sup>1</sup> , Laurent Varnoux <sup>1</sup> , Nicolas Maranzana <sup>2</sup> <i><sup>1</sup>SKF France, France; <sup>2</sup>Arts et Métiers Paritech, France</i>
	<b>Roadmapping the Disruptive Innovation Technologies Based on CV of Resource</b> Jianguang Sun <sup>1</sup> , Yu Wang <sup>1</sup> , Lizhen Jia <sup>1,2</sup> , Runhua Tan <sup>1</sup> <i><sup>1</sup>Hebei University of Technology, China; <sup>2</sup>Politecnico di Milano, Italy</i>	<b>TRIZ-based analysis of the rail industry problem of low adhesion</b> John Cooke <i>Cocatalyst Limited, UK</i>	
12:30	Room: SKS 1 <sup>st</sup> floor		
(90 min)	Lunch		
14:00	Room: 10D		
(30 min)	Closing ceremony & participants' feedback - Sebastian Koziółek, Local committee chair		
14:30	ETRIA Members meeting - Pavel Livotov, President of ETRIA European TRIZ Association		
(60 min)			
<b>EXCURSION</b>			
15:30	Room: Main Hall		
	Meet point for study visit		
16:00	Room: ZOO Wrocław		
(30 min)	Keynote: Africarium: Where tradition meets innovation – Radosław Ratajszczak, President of the Board, ZOO Wrocław, PL		
16:30	Africarium innovation tour		

## DAY 4 THURSDAY: 27.10.2016 (OPEN WORKSHOP DAY)

08:30	Room: 10D			
(10 min)	Open Workshop Day: organizational announcements Sebastian Koziółek, Local committee chair			
08:40	Open Workshop Day: welcome speech Eugeniusz Rusiński, Conference Chair			
(15 min)				
09:00	Room: 10D	Room: 113	Room: 114	Room 115
(90 min)	<b>Inventive engineering in education</b> Sebastian Koziółek, Local committee chair <b>Systematic innovation in higher education and universities</b> Maciej Litwin, Wrocław Academic Hub <b>Systematic innovation in education</b> Jarosław Delewski, President of Department of Education in Wrocław	<b>TRIZ Tutorial for beginners</b> (in English) (0/60) Saurabh Kwatra conference participants only	<b>TRIZ Tutorial for advanced</b> (in English) (0/60) Dana Clarke conference participants only	<b>TRIZ open workshop</b> (in Polish) (0/20) Konrad Klepacki
10:30	Room: Foyer			
(30 min)	Coffee break			
11:00	Room: 113	Room: 114	Room 10D	Room 115
(90 min)	<b>Creative game</b> (in English) (0/20) Mariusz Ptak	<b>Agile + Waterfall – two powers of project management</b> (in English) Marek Malkowski	<b>"Engineer is a thoughtful practitioner"</b> (Polish-English translation) (0/100) Franciszek Przystupa, PWR	<b>Inventive Engineering for children</b> (in Polish) (20/20) Sebastian Koziółek, registration closed
12:45	<b>Technology forecasting via fourteen TRIZ-driven trends</b> (in English) (0/20) Saurabh Kwatra	<b>System Operator</b> (in English) (0/16) Marek Mysior & Bartosz Pryda	<b>Inventive Engineering for adults</b> (in Polish/English) (0/16) Sebastian Koziółek	<b>Titanic case study</b> (in English) (0/40) Nina Defounga
(90 min)				
14:30	<b>Trendy Rozwoju Systemów Technicznych w praktyce</b> (in Polish) (0/20) Konrad Klepacki	<b>Design Thinking</b> (in English) (0/16) Damian Derlukiewicz		
(90 min)				
16:00	Room: 10D			
(15 min)	Open Workshop Day closing speech - Sebastian Koziółek, Local committee chair			