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CREATIVE ECONOMY WITH TRIZ

# GLOBAL TRIZ CONFERENCE

Creative Economy with TRIZ

제5회 글로벌 트리즈 컨퍼런스 | 2014  
July 8th ~ 10th, SETEC



미래창조과학부  
Ministry of Science, ICT and  
Future Planning



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# Welcoming Message

## President Message

First of all, we appreciate all of you for attending the "Global TRIZ Conference 2014".

KATA, Korea Academic TRIZ Association ([www.katatriz.or.kr](http://www.katatriz.or.kr)), was established for the purpose of exchanging knowledge between academic and industrial circles and vitalizing TRIZ, a tool of innovation. KATA is expanding its activities such as hosting Global TRIZ Conference, KOREA TRIZ Festival annually and TRIZ Forum every month to encourage TRIZ.

In particular, Global TRIZ Conference is the biggest event we hold annually, and this year's conference, under the theme of "Creative Economy with TRIZ", will present you keynote speeches/tutorials by world renowned TRIZ researchers and scientific, practical papers to give you fruitful experiences and valuable information.

TRIZ has been most pervasive and best applied in South Korea. You will be able to witness how Korea major companies use TRIZ tools to dramatically elevate their global competitiveness. We hope this Global TRIZ Conference 2014 will be a good opportunity to enhance creativity in each area by exchanging best practices globally and inspire you how TRIZ make your business great in the future.

Thank you.

<President of KATA>  
- Sehyun Kim

## Conference chair's Message

It is my great pleasure to welcome you all to this inspiring Global TRIZ Conference and to invite you to an international forum of new ideas to promote Creative Economy and TRIZ during the conference period in this vivacious city of Seoul. I would like to also extend my warmest appreciation to all the guests, speakers and participants from abroad as well as from Korea.

The world economy is rapidly changing subject to untold severe competition worldwide. Since last year, Korean Government has initiated national policy of "Creative Economy". Creative Economy puts focused emphasis on creation of new markets and new job openings, which is expected to activate and boost the economy through industrial innovation and creative social approaches.

In this era of high competition and contradictions, TRIZ would provide good philosophical basis and directions to resolve existing contradictions and difficult issues. Finally, we expect that creative approaches would play a great role to achieve value creation and innovation, accordingly leading to Creative Economy.

During the coming conference days, we wish that you can share and discuss about creative ideas and insights on diverse industrial and social issues. We also wish that you would have an opportunity to see and enjoy some facets of Korean culture as well.

<Conference Chair of GTC2014>  
- Prof. Dong-Yol YANG, KAIST

# Committee

## Conference chair

Prof. Dong-Yol Yang  
- KAIST  
- E-mail: [dyyang@kaist.ac.kr](mailto:dyyang@kaist.ac.kr)



## Counsel chair

Prof. Wook Sun  
- Seoul National Univ.



## Organizing committee

Youngsul Kwon(Hankyoung Academy)  
Hojong Kim (KimsTRIZ)  
Sunsoon Park (Max-frank Publ.)  
Kyoungchul Oh (TRIZMindmap)  
Heechun Lee (POSCO)  
Kyujin Jeong (GEN3 Korea)

## Scientific committee

Minho Ga (Yonsei Univ.)  
Hyukhong Kwon (Daejin Univ.)  
Youngil Kim (Korea Polytechnic Univ.)  
Yongun Moon(Silla Univ.)  
Kyoungjin Park (Hanyang Univ.)  
Sunggyun Park (Chonbuk Univ.)  
Jaeho Park(Yeungnam Univ.)  
IlWoo Park(Korea National Open Univ.)  
Yongwon Song (Korea Polytechnic Univ.)  
Changyong Song(Halla Univ.)  
Hyoungkeun An(VISC Co., Ltd)  
Seunghyun Ryu (Ajou Univ.)  
Kyeongwon LEE (Korea Polytechnic Univ.)  
Sunguk Lim (Daejin Univ.)  
Suhong Lee (Yonsei Univ.)  
Misuk Jung (Buchun Univ.)  
Youngho Cho(Korea Polytechnic Univ.)  
Sunghee Jin (Inha Univ.)  
Seokwon Cha (Seoul Nat. Univ.)  
Karl Han(Ajou Motor College)  
Jiyong Han(Daejin Univ.)  
Yongjeong Huh (Korea Polytechnic Univ.)  
Jeongsuk Hyun (Jeju Univ.)  
Unbong Hwang (Postech)

## Professional committee

Minsoo Kim(Samsung Display)  
Sunghwan Kim (SK hynix)  
Younggi Kim(ZISANG Co., Ltd.)  
Youngil Kim (TRIZ Korea)  
Wonsik Kim (LS mtron)  
Ikchul Kim (KTA)  
Jongki Kim(Korea Railroad Research Institute)  
Taehyun Kim(KSA)  
Hyojun Kim (Zeon Consulting)  
Eungi Min (HCC)  
Min Geol Park(Darae Law & IP Firm)  
Jongrak Park(Hyundai Motors)  
Seunghee Suh (M&T)  
Sehoon Ahn (TRIZ Mindmap)  
Jaewon Yang (POSCO enc)  
Dukso Youn (Mando)  
Hongyul Yoon (TRIZ center)  
Kyoungkeun Lee (KSA)  
Minkyu Lee (Gen3 Korea)  
Jongyoon Lee (TRIZ Academy)  
Junyoung Lee(Samsung Electronics)  
Minkook Jung(KSA)  
Junhee Cho(SK hynix)  
Myungrul Choi (TSST)  
Taewook Kang (Samsung Display)  
Yushin Han (LG Electronics)

## Administrative Management



- Sehyun Kim  
President of KATA  
Executive Managing  
Director, POSCO  
[sehyun.kim@posco.com](mailto:sehyun.kim@posco.com)



- Jeongho Shin  
Secretary General  
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- CONFERENCE OFFICE  
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## Program at a Glance

July 7th	July 8th	July 9th	July 10th
Industry Tour 15:00 - 19:30	Conference Program (Refer to page 4 for the details)		Tutorial Program 09:00 - 17:20
<ul style="list-style-type: none"> <li>Samsung Innovation Museum Tour (15:00 - 16:10)</li> <li>Discussion meeting with TRIZ experts of Samsung Electronics (16:10 - 16:40)</li> <li>Hwaseong Fortress Tour (16:40 - 18:00) #Unesco's Cultural Asset</li> <li>Dinner (18:00 - 19:30)</li> </ul>	<ul style="list-style-type: none"> <li>Conference Program (09:00 - 18:25)</li> <li>Banquet (19:00 - 21:00)</li> </ul>	<ul style="list-style-type: none"> <li>Conference Program (09:00 - 18:25)</li> <li>Award &amp; Closing Ceremony (18:30 - 19:00)</li> </ul>	<ul style="list-style-type: none"> <li>Victor Fey (09:00 - 12:20) Seeing Tomorrow Today : Knowing your customers' needs before they are aware of them</li> <li>Len Kaplan (13:30 - 16:50) Intro to FutureMapping</li> <li>Wrap up (16:50 - 17:20)</li> </ul>

# Programs

Start / End	Min	July 8th (Tuesday)		July 9th (Wednesday)	
		Room A	Room B	Room A	Room B
Registration (08:00-09:00)					
Opening ceremony					
09:00 ~ 10:30	90	<b>Welcome message</b> <ul style="list-style-type: none"> <li>Sehyun Kim, President of KATA</li> <li>Dong-Yol Yang, Conference Chair</li> </ul>	<b>Keynote Lecture</b>  Creative economy and TRIZ <b>Minwha Lee (Visiting professor, KAIST)</b>		
		<b>Congratulatory Address</b> <ul style="list-style-type: none"> <li>Wook Son, Visiting professor, Seoul National University</li> <li>Sangmok Lee, Vice-minister, Ministry of Science, ICT and Future Planning</li> </ul>	How TRIZ works <b>Len Kaplan (TRIZ master, Samsung Techwin)</b>		
		<b>Keynote Speech</b> <ul style="list-style-type: none"> <li>Sungmo Kang, President of KAIST</li> <li>Hak-kyung Sung, Senior Vice President, Global Technology Center, Samsung Electronics</li> </ul>			
10:30 ~ 11:00 Coffee Break					
Keynote Lecture					
11:00 ~ 12:30	90	New developments in TRIZ : using need dynamics to identify high-potential innovations <b>Victor Fey (TRIZ Master, Adjunct professor, Wayne State University)</b>		Dare to think! E. Hin, A. Hin TRIZ based approach to effective project guidance in Creative Economic Naum B. Feygenson, Dmitriy A. Bakhturin	
		How TRIZ helps to make creative thinking and business with new big data <b>Eric Prévost (President of TRIZ France)</b>		TRIZ Development Framework for Malaysian SME Nooh Abu Bakar, Zulhasni Abdul Rahim, Sarimah Mlsman, Yeoh Teong San, Tan Eng Hoo	
12:30 ~ 14:00 Group Photo & Lunch Break					
14:00 ~ 15:15	75	Practice of multi-step hybridization : Case study based on OLED display manufacturing problems described in US 20130071775 <b>Valeriy Prushinskiy, Minsoo Kim</b> OTSM models in the Solving Mill program <b>Nikolay Shpakovsky, Elena Novitskaya</b> Application of Modern TRIZ for Technology Roadmapping <b>Oleg Feygenson, Jun-Young Lee</b>	Improvement of the scratch on the wire at the wire rodrolling process <b>Daegyung Kang, Minji Kim</b> Theory of Creatively Preventing System Failures : SPEED FMEA M.W. Han, S.H. An, Y.P. Lim Prevention of oil spill by tanker collision and minimization of the disaster damage by TRIZ <b>Sangwhun Nam, ChongHye Yoon, Hojong Kim</b>	Invention, Serendipity and Research Hypothesis with a Systems Approach <b>MoonWon Suh</b> What roles TRIZ can play in startup incubators? <b>Eric Prévost, German Bruno, Yves Guillou, Pascal Sire, Céline Conrardy</b> Common sense in TRIZ and MAGIC <b>YoungGi Kim, HyunJin Ham</b>	Future strategy with TRIZ and Big Data Technologies <b>YongWon Song, JeongJoon Lee, Alla Zusman, Boris Zlotin</b> Core Technology Evolution Map <b>Jungsu Ha, Jae Min Lee, JunYoung Lee</b> The practical usage of the inventive principles-SFRE grouping <b>M.S. Ryu, Y.H. Jeong, J.S. Lee</b>
		15:15 ~ 15:35 Coffee Break			
15:35 ~ 16:50	75	Analysed and proposed future plan for TRIZ implementation, training and teaching in Tunku Abdul Rahman University College using 9-windows and eight trends of evolution <b>Chee Sheng Keong, Mum Wai Yip, Johan Kii Geat Lim, Nikalus Shu Luang Swee</b> Creativity-convergence camp for enhancing creative problem solving skill <b>Dong Joo Song, Young Soon Youn, Mi Jung Ryu, Yeon Soon Kim</b> Electronic Reference Book on Physical contradictions <b>Y. Danilovsky, S. Ikovenko, MinGyu Lee, KJ Jung, Sung Kim, Sahong Kim</b>	Evolution Map, Future Unveiled by Past Patents <b>Mijeong Song, Duckjin Choi</b> 'Modernized Aristotle's Causation View' for Cause Effect Analysis <b>Hongyul Yoon, Naum Feygenson</b> Innovation of Dental Handpieces based on Function Oriented Search <b>Jeongho Shin, Sungwon Ryu, Yangsoo Kim</b>	Enhanced experience and safety in Interactive Robotics <b>A. Riwan</b> TRIZ creative knowledge spiral to solve nuclear safety business issue <b>P.Sire, F. Goldschmidt, O. Pierrard</b> A study on application of TRIZ for non-technical problem solving <b>Younglim Kim, Juhyun Kang</b>	Development of quick connecting type resonator <b>Junguk Lee, Jihoon Yu, Hojun Hwang</b> Windbreak designed using TRIZ for raw material yard <b>Jaewon Yang, Sungkyu Choi, YoungSub Moon</b> Technology forecasting for medium term using function oriented model based on TRIZ <b>Siho Seong, Jayyoung Ohm, Chankyu Kim, Hyunsoo Ahn</b>
		16:50 ~ 17:10 Coffee Break			
17:10 ~ 18:25	75	A Study on Leadership and Group Dynamics of Effective TRIZ Teams <b>Jae H. Park</b> Assisting the use of TRIZ laws in partially automating evolution hypothesis construction <b>Dong Joo Song, Young Soon Youn, Mi Jung Ryu, Yeon Soon Kim</b> Micro-trend of increasing flexibility of multilayer composite <b>Naum Feygenson, Bongkyoung Park, Hyejung Lee</b>	Forecasting future of system using advanced 9 windows canvas <b>Kyeongwon Lee</b> Systematic Lateral Thinking by TRIZ <b>Hyo June Kim</b> A comparison of Cause Analysis Methods and suggestion for an efficient way of use <b>Min-Gyu Lee, Vasily Lenyashin, Yury Danilovsky, Kyu-Jin Jung, Sung Kim, Sahong Kim</b>	2A2CI, an effective innovation methodology that makes TRIZ people & business compatible <b>X. Lepot, A. Neveux, Y. Guillou, S. Baudrux</b> Crowdsourcing through the property-function approach in the patent database, a platform and 6 step approach for technology transfer and innovation <b>S. Dewulf, F.Vanmoerkerke</b> Innovative Cases of TRIZ Application in Automotive Industry <b>Nooh Abu Bakar, Zulhasni Abdul Rahim</b>	The improvement of coating shape using the multi Su-F model and MST method <b>W.C. Jung</b> A Green Algae Cleaner developed by the Cause & Effect Technique of TRIZ similar to a Vacuum Cleaner <b>Yoon Pyo Lee, Bok Hee Cho</b> How Nature "solves" inventive problems <b>Stéphane Savelli</b>
		19:00 ~ 21:00 Official reception for Gala dinner (Bus departure from the conference venue at 18:30)			
Closing & Awards for the best Papers (18:30~19:00)					

# Speakers

## PRESENTERS

- A. Riwan** CEA, LIST, Interactive Robotics Laboratory
- CheeSheng Keong** Tunku Abdul Rahman University College
- D. Cavallucci** INSA Strasbourg
- DaeGyu Kang** POSCO
- Dmitriy A. Bakhturin** Central Institute for Continuing Education and Training
- DongJoo Song** Yeungnam University
- E. Hin** Education for a New Era
- Eric Prévost** TRIZ France
- HongYul Yoon** TRIZ Center
- HyoJune Kim** Zeon Consulting
- Jae H. Park** Yeungnam University
- JaeWeon Yang** POSCO E&C R&D Center
- JeongHo Shin** eTRIZ
- JungSu Ha** Samsung Electronics
- JungUk Lee** LS Mtron
- KyeongWon Lee** Korea Polytechnic University
- M.S. Ryu** POSCO Research Institute
- M.W. Han** Hyundai Motor Company
- MiJeong Song** Samsung Electronics
- MinGyu Lee** Gen3 Korea Innovation Consulting
- MoonWon Suh** North Carolina State University
- Naum Feygenson** Samsung SDI
- Nikolay Shpakovsky** Target Invention
- Nooh Abu Bakar** Universiti Teknologi Malaysia
- Oleg Feygenson** Samsung Electronics
- Pascal Sire** innopie
- S. Dewulf** AULIVE Pvt Ltd
- Sangwhun Nam** CDI
- SiHo Seong** KAIST
- Stéphane Savelli** MP Solving
- Valeriy Prushinskiy** Samsung Display
- W.C. Jung** POSCO RIST
- X. Lepot** Engineering & Inventive Design
- Y. Danilovsky** Gen3 Korea Innovation Consulting
- YongWon Song** Korea Polytechnic University
- YoonPyo Lee** KIST
- YoungGi Kim** ZISANG Co, Ltd.
- Younglim Kim** POSCO

## Congratulatory Address

- ▶ **Wook Son** Visiting Professor, Seoul National University
- ▶ **Sangmok Lee** Vice-minister, Ministry of Science, ICT and Future Planning

## Keynote Address

### Sungmo Kang

President  
:: KAIST



### Hak-kyung Sung

Senior Vice President  
:: Samsung Electronics Global Technology Center



## Keynote Lecture

### Victor Fey

- TRIZ master
- Managing partner, The TRIZ Group, LLC
- Adjunct Professor, Wayne State University, USA

#### TOPIC

New developments in TRIZ : using need dynamics to identify high-potential innovations



### Len Kaplan

- TRIZ master
- TRIZ Specialist at Samsung Techwin

#### TOPIC

How TRIZ works



### Eric Prévost

- President of TRIZ France
- Director EMEA Industry Business Unit for manufacturing, aerospace and defense, and automotive at the ORACLE company

#### TOPIC

How TRIZ helps to make creative thinking and business with new bigdata technology



### Minwha Lee

- Visiting Professor, KAIST
- Chairman of KCERN(Korea Creative Economy Research Network)
- The former CEO of Medison

#### TOPIC

Creative economy and TRIZ



# Activities

## International

### Global TRIZ Conference

KATA, Korea Academic TRIZ Association was established for the purpose of exchanging knowledge between academic and industrial circles and vitalizing TRIZ, a tool of innovation in 2010. Since then, KATA hosts Global TRIZ Conference, and it has become one of the biggest conferences which dedicates to enhance the TRIZ internationally.

#### 2010 The 1st Global TRIZ Conference

- Event Date : March 11-12, 2010
- Venue : Dasan Hall, The Korea Economic Daily Building, Seoul, Korea
- Theme : Growth Through Creativity



#### The 2nd Global TRIZ Conference 2011

- Event date : March 9-11, 2011
- Venue : Dasan Hall, The Korea Economic Daily Building, Seoul, Korea
- Theme : Problem Solving for Smart Innovation



#### 2012 The 3rd Global TRIZ Conference

The Joint Conference of 3rd Global TRIZ Conference 2012 in Korea & 3rd International Conference on Systematic Innovation

- Event date : July 10-12, 2012
- Venue : Yonsei University, Seoul, Korea
- Theme : Smart Innovation



#### The 4th Global TRIZ Conference 2013

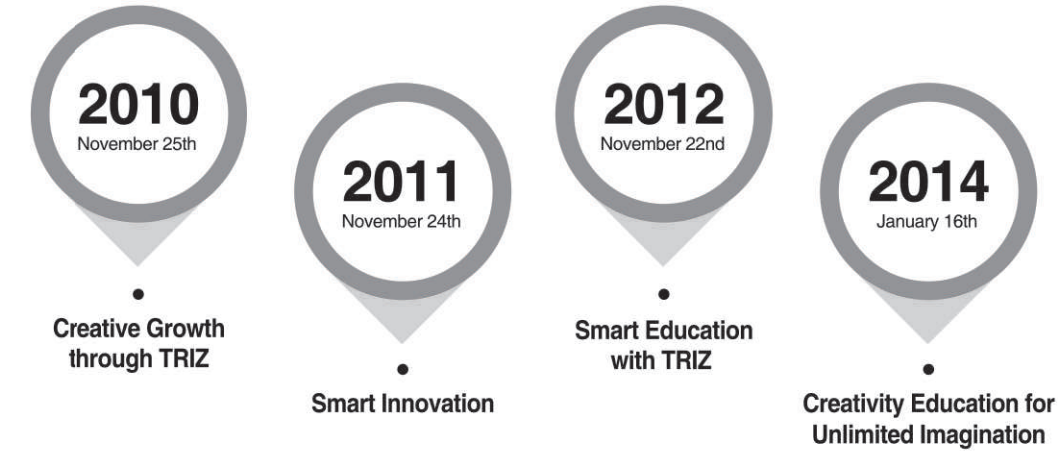
- Event date : July 9-11, 2013
- Venue : SETEC, Seoul, Korea
- Theme : Creative thinking with TRIZ

# Activities

## Domestic

### Korea TRIZ Festival

KATA hosts Korea TRIZ Festival as the biggest domestic conference annually. It shows how TRIZ is getting grown gradually in not only manufacturing industry, but also creative education field in Korea.



### TRIZ Forum

It is a public seminar KATA holds monthly. The renowned TRIZ experts give their know-how about innovations and creativity based on TRIZ.

	September	October	November	December
<b>2013</b>	<b>Heechun Lee</b> ↳ POSCO Introducing idea of TRIZ and applying process	<b>Junhee Cho</b> ↳ SK hynix Process to create rapt idea	<b>Taewook Kang</b> ↳ Samsung Display Creative people and Creative problem-solving	<b>Jeongho Shin</b> ↳ eTRIZ Creativity which changes world, TRIZ
<b>2014</b>	<b>Valeriy Prushinskiy</b> ↳ Samsung Display Hybridization : understanding of ideas and applying hybridization algorithms and schemes	<b>Vasily Lenyashin</b> ↳ Gen3 Korea TRIZ as the system of knowledge for problem solving	<b>Oleg Feygenson</b> ↳ Samsung Electronics The TRIZ approach to innovation	- August 21st - September 25th - October 16th
	April	May	June	The Second Half Year