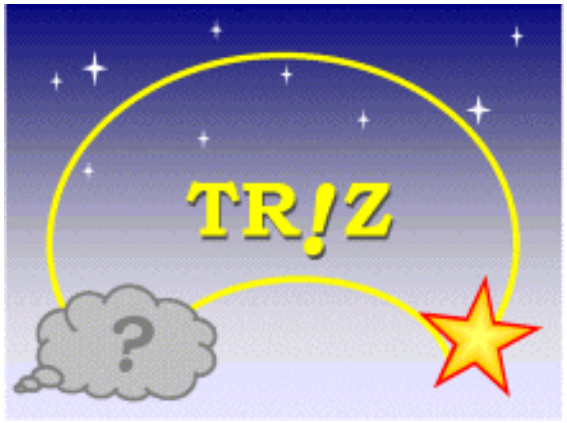
PSST 2012
International Conference on
Problem Solving Strategies & Techniques
Held at Tehran, Iran,
on Feb. 22-23, 2012



TRIZ in Japan

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http://www.osaka-gu.ac.jp/php/nakagawa/TRIZ/eTRIZ/

Topics of My Talk "TRIZ in Japan"

Requested by Mr. Karimi:

How TRIZ entered to Japan,

What has happened in the story of your country with TRIZ

(Your trip to Russia for TRIZ, "TRIZ Home page in Japan", Japan TRIZ Society, Japan TRIZ Symposium, etc.)

and

What are predicted for future.

Introduction of TRIZ into Japan (1996 - 2001)

Academia, Journalism,
Promoters, Industry, Web site

Slow but steady penetration (2002 - 2005)

Industry
Users groups, Web site

Establishing TRIZ in Japan (2006 - present)

Japan TRIZ Society
Japan TRIZ Symposium

For future.

Global Network in TRIZ

1. Introduction of TRIZ into Japan (1996 - 2001)

Academia: Prof. Youtaro Hatamura's group (Univ. of Tokyo)

Working on design methodology in mechanical engineering.
Met TRIZ in 1993 in MIT (USA).
Published "Introduction to TRIZ" (1997) but rather in a critical stance.

Journalism: Tsukasa Shinohara (Nikkei Business Press)

Vice-Editor of a bi-weekly journal "Nikkei Mechanical".
Published Glen Mazur's article 'Super-method for invention: TRIZ' (1996).
Published 6 TRIZ textbooks in Japanese translation (1997 - 2000)
Altshuller's 4 books, Salamatov's textbook, etc.
Published many articles on TRIZ in the journal
and organized various seminars by USA TRIZ consultants.

Background of accepting TRIZ (in Industries and some Academia)

High-tech industries needing innovation
TQC movement, VE, QFD, Taguchi Method, CAD/CAE
Creativity Methods (Japanese original, since 1960s) besides brainstorming
KJ method (by Prof. Jiro Kawakita),
ET method (by Prof. Kikuya Ichikawa),
NM method (by Masakazu Nakayama)
-- Japan Creativity Society (since 1979) [mainly based on academia]

TRIZ Promotion Firms backed up by USA TRIZ Tool Vendors

Mitsubishi Research Institute (MRI) <== Invention Machine Inc. (USA)

An IT section of a big think tank (MRI) in Japan.
Started to sell **'TechOptimizer' of IM** (1997).
Conducted many open seminars on TRIZ for industrial users.
Organized IM Users Group (engineers from about 100 companies)
Monthly seminars/workshops by the voluntary users. (1997 -)
Made the **Japanese Edition** of TechOptimizer (1999).
Consortium of users (Toyota, Honda, Hitachi, Matsushita, ...)
Published an introductory textbook "Illustrated TRIZ". (1999)
Training of the software tools, but not much in consulting.

SANNO Institute of Management <== Ideation International Inc (USA)

Consulting business with VE and business management methods.
Started the TRIZ promotion under the contract with Ideation. (1998)
Mostly training and consulting inside industries.
Under non-disclosure agreement with industries.
No users group.
Published a textbook "TRIZ &VE" (2002)

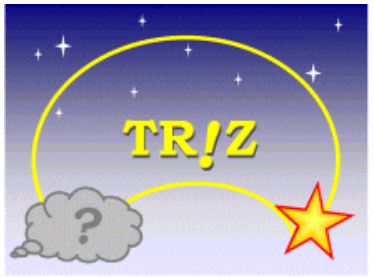
Academia: Toru Nakagawa (Fujitsu ==> Osaka Gakuin Univ.)

(Researcher in Physical Chemistry; and then in Software QC, etc.)

Encountered TRIZ in May 1997 in a seminar by a MIT researcher.
Introduced TRIZ & TechOptimizer in Fujitsu Labs (till Mar. 1998)

Moved to Osaka Gakuin Univ. and worked to promote TRIZ in Japan.

Started **"TRIZ Home Page in Japan"**
(in Japanese & in English) (Nov. 1998)



Attended international conferences. Nov. 1998 USA,
TRIZCONs (USA 1999 -), ETRIA TFCs (Europe 2001 -)

Met **USIT** (Ed Sickafus, USA) (Mar. 1999) and started USIT training in Japan

Trip to TRIZ Mother Countries
(Russia and Belarus) (Aug. 1999)

Japanese Edition of Classical TRIZ textbook:
Yuri Salamatov (ed. Valeri Souchkov)
(Sept. 2000)

Ms. Valentina N. Zhuravlyova
(wife of late Mr. G. Altshuller)
[Petrozavodsk, Russia]

Ms. Alla Nesterenko
[Petrozavodsk, Russia]

Mr. Volyuslav V. Mitrofanov
[Skt. Peterburg, Russia]

Mr. Dmitry Kucheravy

Mr. Nikolai Shpakovsky
[Minsk, Belarus]

Industries: **Many leading companies introduced/tried to use TRIZ**

Toyota, Honda, Nissan, Mazda, Denso,

Hitachi, Toshiba, Fujitsu, NEC,
Matsushita (Panasonic), Matsushita Electric Works,
Sharp, Nitto Denko
Fuji Film, Fuji Xerox, Ricoh, Seiko Epson, Anritsu,
Canon, Nikon, Konica-Minolta, Pioneer,

Sekisui Chemicals, Kawasaki Heavy Industry

However, the initial TRIZ boom faded out around 2001.

Companies applied TRIZ software tools as knowledge bases.
Few people in companies understood the methodology and mastered the TRIZ way of thinking.
Classical TRIZ was not easy to learn by textbooks.

Prof. Hatamura's group and Nikkei BP moved away from TRIZ.
Very few percentage of people with potential backgrounds got involved in TRIZ.

2. Slow but Steady Spreading of TRIZ (2002 -2005)

Nakagawa's Slow-but-Steady Strategy (TRIZCON2000)

Using USIT process (I.e. a simplified TRIZ),	⇔	Classical TRIZ
with/without TRIZ knowledge base tools,		depending on software tools
With bottom-up grass-root organization,		Top-down way
Introducing into the current R&D activities,		Aiming at a drastic change

Nakagawa's activities:

Developing USIT Further and Conducting USIT trainings

Reorganizing solution generation methods "USIT Operators" (2002)

Six-Box Scheme of USIT

-- Recognition of a new paradigm for creative problem solving

Japanese Edition of **Darrell Mann's Textbook** "HOSI" and "Matrix 2003"

Conferences abroad: TRIZCONs, ETRIA TFCs -- Personal Reports

"TRIZ Home Page in Japan":

Papers and case studies by many different authors besides myself

Teaching classes in OGU: Case studies of solving familiar problems

Achievements in industries:

Hitachi -- Company-wide promotion of TRIZ (together with other methods)

Panasonic Communications Co. -- Intense promotion of
QFD - TRIZ - Taguchi Method - CAE in an integrated way

Grass-root achievements with TRIZ/USIT in:
Fuji Film, Fuji Xerox, Nissan, Panasonic, etc.

Gradual building up of Japanese TRIZ consultants

TRIZ consultants <== VE/TQC/TM consultants,
<== TRIZ leaders/practitioners in industries
<== IP professionals

IM Users Group Meetings (annually held by MRI) (2001 - 2004)
80 - 100 participants [Symposium style, almost natonal scale.]

Gradual penetration in university education

Organizing a unified TRIZ community in Japan

Competing: MRI (Invention Machine) vs SANNO (Ideation International)
Industrial users and academia behaved as the mediators.

Started a voluntary discussion group (Mar. 2004) (Toshihiro Hayashi (Hitachi))

Start of Japan TRIZ CB (Jan. 2005) (Chair: Toshihiro Hayashi (Hitachi))
Collaborative Board of TRIZ Promoters and Users in Japan
Voluntary group (initially 18 members)

Held "**First TRIZ Symposium in Japan**" (Sept. 2005)

Japan TRIZ Society, NPO (Dec. 2007)
(Chairperson of the Board: T. Hayashi)
Authorized by Tokyo Metropolitan Office

NPO法人
日本TRIZ協会
Japan TRIZ Society (JTS)

Organized and operated by voluntary managing members (about 20 people)
Society members: 100 -120 voluntary individuals
National center for promoting TRIZ in Japan

3. Establishing TRIZ in Japan (2006 - 2012)

TRIZ Symposium in Japan (Annually, 2005 -)

Organized by Japan TRIZ CB and
later (since 2008) by Japan TRIZ Society

TRIZ シンポジウム 2005
The First TRIZ Symposium in Japan

Japanese National AND (partially but as much as possible) International
- Slides are projected in two languages (Japanese and English) in parallel.

Well-organized public/academic conference
- Presentations and attendance by many industrial people
- Active and friendly presentations and discussions

Year		2005	2006	2007	2008	2009	2010	2011
Presentations	total	21	35	37	46	43	40	40
	overseas	(3)	(11)	(11)	(13)	(14)	(13)	(9)
Attendees	total	104	157	201	180	137	165	115
	overseas	(4)	(18)	(10)	(15)	(19)	(46)	(11)

Japan TRIZ Symposium: Keynote and Invited speakers

2005	Darrell Mann (UK)	Toru Nakagawa (OGU)
2006	Hansjuergen Linde (Germany) Ed Sickafus (USA)	Shozo Hibino (Chukyo Univ.) Kazuya Yamaguchi (Panasonic C.C.)
2007	Larry Ball (USA) Simon Dewulf (Belgium)	Toshihiro Hayashi (Hitachi), Seiichiro Tamai (Matsushita), Naoaki Okuzumi (Toshiba)
2008	Amir Roggel (Israel) Sergei Ikovenko (USA)	Yojiro Fukushima (Matsushita)
2009	Boris Zlotin (USA) Darrell Mann (UK)	
2010	Nikolai Khomenko (Canada) **Mahmoud Karimi (Iran)** 	Manabu Sawaguchi (Waseda U.) Kazuya Yamaguchi (MOST); Toshimitsu Kataoka (Patbrain); Toru Shonai (Hitachi); Toru Nakagawa (OGU)
2011	Simon Litvin (USA)	Shunsuke Suzuki (ET Society) Osamu Kumasaka; Kiyoshi Shikakura; Teruyuki Kamimura; Masatoshi Hotta; Toru Nakagawa
2012	Denis Cavallucci (France)	to be announced

△ △ △

Mahmoud Karimi (Late) Nikolai Khomenko Toru Nakagawa

6th Japan TRIZ Symposium, Sept. 2010

Industrial applications

Hitachi, Panasonic, SONY,
Tohoku Ricoh, Koganei, Konica-Minolta,

Activities of Japanese TRIZ consulting firms

IDEA, SANNO, SKI (<-- MRI),
Ideation Japan, Invention Machine Japan

Multi-company discussion groups

Study Groups inside Japan TRIZ Soc.
(Business & Management; Patents: IT/SW; Education)
VE Association Kansai Branch (Industrial TRIZ application)
MPUF (USIT/TRIZ)

Wider scope of TRIZ application

University education

OGU, Kanagawa Inst. Tech., Waseda Univ., etc.)

Web sites:

"TRIZ Home Page in Japan"

4. For Future:

Current stage of TRIZ in the World

TRIZ Software Tools
Industrial consultants
("TRIZ Journal")
TRIZCON
USA

Classical TRIZ
Creativity education
MATRIZ
Russia

Company-wide
promotion
Korea

Unified TRIZ society
Easy-to-apply TRIZ
Public Web site
TRIZ Symposium
Japan

Academia & Industry
cooperation
ETRIA TFC
Europe

Patent research,
New Matrix
UK

Promotion by
government
China

Social penetration
with TV
Iran

Global Network of (Regional) Public Web Sites in TRIZ

==> Autonomous growth of Global TRIZ Community by overcoming language barriers

==> Mutual understanding For PEACE in the World !!