

TRIZ, The Development and Dissemination in Industries in China

by Runhua Tan

National Engineering Research Center for Technological Innovation Method and Tool
Hebei University of Technology, Tianjin, China.

E-mail address: rhtan@hebut.edu.cn

Innovation which is the implementation of new ideas is viewed as the key to both sustaining a competitive advantage and the lifeblood or the best hope for the growth of companies, both in China and other countries. In China now many companies proactively introduce creativity techniques and TRIZ into R&D activities to improve their innovative capabilities. The local governments, universities, companies are all together to carry out the introducing process. There are three kinds of needs for the introduction in companies which are mass-engineers to attend the process, seamless connection between the introducing process and the R&D processes and high expectation for innovation. As a national level center we have been developing both new theories and introducing techniques to meet the needs of the industries in China.

In order to meet the needs we have developing C-TRIZ based on classical TRIZ, which is different from other kind of methodologies as shown in figure 1. Some of C-TRIZ are new method in which the classical TRIZ is the core and several other methods are integrated into the system. InventionTool which is a computer-aided innovation software (CAI) developed in this center is a supporting sub-system. An interactive seven step process model for training engineers which is a mass-engineer oriented training model (MEOTM) has developed and is as other sub-system to support C-TRIZ. C-TRIZ, CAI and MEOTM all from the C-TRIZ system.

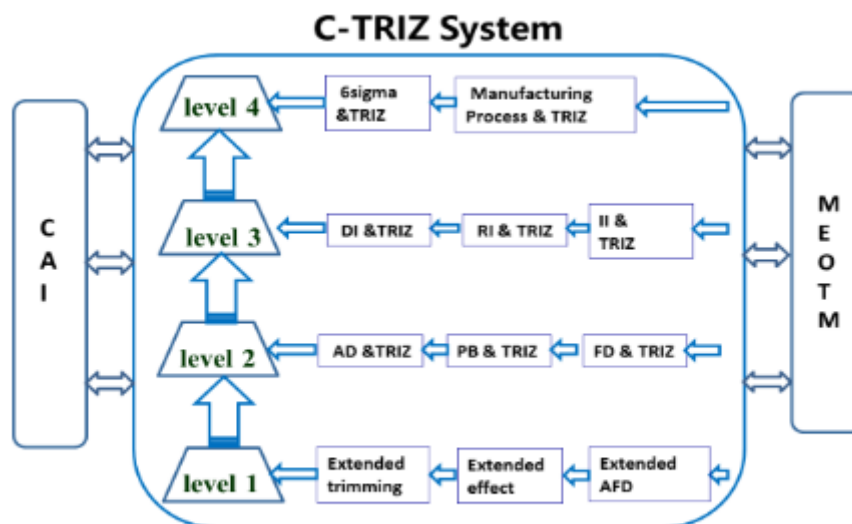


Figure 1. C-TRIZ and its supporting system

There are four levels in C-TRIZ. The Level 1 is the classical TRIZ and its extensions. Level 2, Level 3 and Level 4 are integrated methods, fusion methods and super methods respectively. The most important level is Level 3 in which the methods for radical, incremental and disruptive innovations are developed and integrated, which are developed in this center.

MEOTM is a supporting sub-system to implement the training process of C-TRIZ in industries for dissemination. It is a seven stage system to connect with the R&D process of companies seamlessly. Under the support of local government many training classes have been carried out in China according to the MEOTM.

Runhua Tan, Professor in the school of mechanical engineering (1996-), Director in the National Engineering Research Center for Technological Innovation Method and Tool (2013-), Vice-President of Hebei University of technology (1999 -). Graduated in Department of Mechanical Engineering, Hebei University of technology, Master (1984) and Bachelor (1982), in the Department of Mechanical Engineering, Zhejiang University, Ph.D (1998). Editorial board member of Chinese Journal of Mechanical Engineering, Computer Integrated Manufacturing System, Chinese Journal of Engineering Design. Chair of Chinese Society of TRIZ (2005-). Chair of Chinese Specific Society for Technological Innovation Method. Vice-Chair of IFIP-TC5-WG5.4. Published 400 papers and 10 books and most of them are related to TRIZ development and application in industries. Won the Altshuller Medal, 2016, Altshuller Institute, USA.

