

# On Contradiction and Systems Thinking

*Khim Teck Yeo (Nanyang Technological University) - [mktyeo@ntu.edu.sg](mailto:mktyeo@ntu.edu.sg)*

*Copyright © 2013 by Yeo. Published and used by INCOSE with permission*

**Abstract.** This main objective of this paper is to revisit a classic written by Chairman Mao TseTung, representing his philosophical thinking about social transformation, through the dialectic thought of the universality and particularity of contradiction, the distinction between principal and non-principal contradictions, and the reversibility of the principal and non-principal aspects of a contradiction. The notion of contradiction has its origins in Hegelian dialectics, but has been applied to the historical experience of China's social revolutionary and the struggle against the Japanese invaders. The theory of contradiction is highly relevant to systems thinking as it provides a systemic way of thinking about complexity and problem analysis. An attempt is made to reintroduce Mao's thinking on contradiction and makes links to aspects of systems engineering with special interest in requirement analysis and criticality analysis. A comparison is also made to contrast a set of operationalized principles of contradiction against the now popularized Theory of Constraint (TOC) for process improvement.