7th Annual INCOSE Great Lakes Regional Conference

Leadership Through Systems Engineering

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David Walden, Does Systems Engineering Stifle Creativity and Innovation?

Abstract: Systems Engineering provides a disciplined way to develop new products and services emphasizing: a holistic approach; taking into account the entire system life-cycle; defining boundaries and interfaces; making balanced trade-offs; and managing risks and opportunities. However, System Engineering's focus on process, documentation, and control is often perceived to inhibit creativity and innovation. This presentation analyzes the relationship between creativity, innovation, and Systems Engineering. Possible impacts on creativity and innovation will be explored in the context of the Systems Engineering processes defined in the International Council on Systems Engineering (INCOSE) Systems Engineering Handbook (INCOSE 2011). Suggestions will be given for better accommodating creativity and innovation within the Systems Engineering process.

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