

Reflections on Opportunities and Challenges for Systems Engineering

Authors : Ali E. Abbas

Abstract : This paper summarizes some of the discussions that occurred in a workshop in West Virginia, U.S.A which was sponsored by the National Science Foundation (NSF) in February 2016. The goal of the workshop was to explore the opportunities and challenges for applying systems engineering in large enterprises, and some of the issues that still persist. The main topics of the discussion included challenges with elaboration and abstraction in large systems, interfacing physical and social systems, and the need for axiomatic frameworks for large enterprises. We summarize these main points of discussion drawing parallels with decision making in organizations to instigate research in these discussion areas.

Keywords : decision analysis, systems engineering, framing, value creation

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