Good Reads About Systems

Recommendations from SERC leadership, researchers, and community

[*The Proceedings of the 2023 Conference on Systems Engineering Research: Systems Engineering Towards a Smart and Sustainable World*](#)

This anthology of presentations from the 2023 Conference on Systems Engineering Research explored the theme of applying systems thinking toward sustainability. SERC Executive Director and Dr. Azad Madni of the SERC Research Council served as honorary conference chairs and edited this collection that includes 47 papers spanning Model-Based Systems Engineering, Digital Engineering, System Modularity, Knowledge Management and Verification, Testing, Verification, and Validation, Graph/Network Methods, Software Engineering, AI and Smart Systems, Value-Based Engineering Case Studies, Value-Based Engineering Case Studies, User Behavior in Complex Systems, Systems Thinking Case Studies, Sustainability Case Studies, Systems Engineering Reviews and Expertise.

Carlo Lipizzi, [*Societal Impacts of Artificial Intelligence and Machine Learning*](#)

In his first book, SERC researcher Carlo Lipizzi from Stevens Institute of Technology presents an overview of the evolution in time of AI/ML to better understand the current and future capabilities, provides an insightful view of technology and how it plays a role in society, and merges the modeling of human reasoning with the power of AI technology to aid readers in making more informed decisions.

David Marquet, [*Turn the Ship Around: How to Create Leadership at Every Level*](#)

Marquet shares the story of how, as a Navy captain, he flipped the traditional command-and-control leadership model into a distributed leadership model, empowering the crew of the Navy's worst-performing nuclear submarine crew and turning it into one of the best. Engagingly written, *Turn the Ship Around* provides examples of pushing leadership to the edge as a way to transform culture, creating a more positive workplace where all team members feel ownership for their challenges and successes. As systems engineers, we all need to be the best leaders we can, pushing for a cohesive and supportive culture for our teams. *(Recommended by Megan Clifford, Stevens Institute of Technology)*

Leadership and Self-Deception: Getting Out of the Box

The common factor in all your interactions – work collaborations and personal relationships alike –is you. *Leadership and Self-Deception* by the Arbinger Institute provides an insightful and thoughtful look at how we often sabotage these relationships and the resulting individual and team impacts. A simple read, this book provides a clear yet profound approach for identifying these problem situations, rectifying them, and avoiding the trap in the future. *(Recommended by David Long, Stevens Institute of Technology)*

Michael Pierce and Bruce G. Cameron, *A Sheep in Wolf's Clothing: SysML is not living up to the hype of revolutionizing product development*

In this white paper for Technology Strategy Partners, Pierce and Cameron explore four critiques of SysML from their project experience, arguing "the learning curve is too steep, the mechanics are cumbersome, the barriers to organizational adoption are high, and it is rarely used past the concept stage." *(Recommended by Nicole Hutchison, Stevens Institute of Technology)*