



The Systems Engineering Research Center— Natural Systems Considerations

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Abstract

The Systems Engineering Research Center (SERC), a University-Affiliated Research Center of the US Department of Defense, leverages the research and expertise of faculty, staff, and student researchers from more than 20 collaborating universities throughout the United States. SERC is unprecedented in the depth and breadth of its reach, leadership, and citizenship in Systems Engineering. Led by Stevens Institute of Technology and principal collaborator, University of Southern California (USC), the SERC has engaged more than 400 researchers since its founding in 2008 — a community of broad experience, deep knowledge and diverse interests.

SERC researchers have worked across many domains and industries, including finance, telecommunications, computing, transportation, in addition to defense. This enables them to apply broad perspectives and the diversity of their combined knowledge to their research.

This webinar addresses the areas of SERC research and specific research tasks relevant to Natural Systems, as well as areas for future research portfolio growth within this domain.

Biography

Dr. Mitchell Kerman has a diverse background with extensive experience in computer modeling and simulation, operations research and systems analysis, systems engineering, engineering management, and business development within both the military and industry.

As the Director of Program Development for the Systems Engineering Research Center (SERC), he oversees strategic communications and outreach to develop and nurture sponsorships, collaborative relationships and key external alliances with industry, government and academic institutions. He also promotes and expands the awareness of SERC programs and initiatives, such as the SERC Doctoral Fellows Program.

Dr. Kerman is the author of two textbooks on computation and introductory computer programming. He has published articles and technical papers addressing topics such as event detection methods within natural and artificial systems, uncertainty quantification and event detection confirmation within oceanographic environments, systems of systems modeling incorporating agent-based models, optimization modeling of Navy shore facilities, and engineering career enhancement and growth. Additionally, he has taught graduate courses in both operations research and systems engineering.

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Join with us to influence SE processes to routinely consider: "What can we learn from Natural Systems?"