

Call for Papers: Special Issue on Advancing Systems Engineering in the Face of Complexity

Systems Engineering Journal in collaboration with **INCOSE's Future of Systems Engineering (FuSE) Program** invites submissions for a special issue focusing on the evolution and advancement of Systems Engineering (SE) in addressing the engineering of increasingly complex systems.

Background and Context: Historically, Systems Engineering has been pivotal in the development of methods for designing large technical systems. This legacy of success has positioned SE at the forefront of disciplines sought to provide effective methodologies for engineering complex systems in our rapidly evolving world. However, we recognize that current SE approaches face limitations when applied to the multifaceted nature of social, technical, and ecological systems of systems – areas that are increasingly recognized as being in critical need of innovative engineering solutions.

Scope and Objectives: This special issue seeks to address these challenges by advancing both the theoretical and practical dimensions of Systems Engineering. We are calling for papers that offer groundbreaking insights, methodologies, and applications that can enhance the capacity of SE to effectively engineer complex systems. Topics of interest include, but are not limited to:

- Innovative theoretical frameworks in SE for non-traditional domains.
- Case studies demonstrating novel applications of SE in social, technical, and ecological domains.
- Cross-disciplinary approaches integrating SE with other fields, such as Systems Science, to address complex challenges.
- Analysis and critique of current SE methodologies in the context of increasingly complex systems.
- Demonstrations of new tools, techniques, and practices in SE that can be applied to many kinds of systems.
- Empirical studies that validate the value of new theories, methods, and tools.

Submission Guidelines: We invite authors to submit papers that push the boundaries of our current understanding and practice of Systems Engineering. Submissions should be original, well-researched, and provide significant contributions to the field. Both theoretical and applied research papers are welcome. Detailed submission guidelines, including formatting and length requirements, can be found on the Systems Engineering journal's website.

Important Dates:

- Submission Deadline: November 1, 2024
- Notification of Acceptance: January 1, 2025

- Final Manuscripts Due: March 1, 2025
- Publication Date: April 1, 2025

Submission Process: Manuscripts should be submitted through the Systems Engineering Journal's online submission portal. Please indicate in your submission that your manuscript is intended for the special edition on "Advancing Systems Engineering in the Face of Complexity."

We look forward to your contributions and to advancing the field of Systems Engineering together.

For any queries or further information, please contact the editorial team at erika.palmer@incose.net.

Guest Editors

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