Call for Papers 10th International Engineering Systems Symposium CESUN 2025

June 9th-11th, 2025 Location: George Mason University, Arlington, VA USA

The great engineering achievements of recent decades have led to the development of systems that are so complex that they create problems unlike those with which engineers have traditionally grappled. Artificial intelligence is rapidly changing the role of humans in complex systems, information and socio-political landscapes are rapidly evolving, and massive challenges like climate change require the concerted efforts of multiple disciplines. The complexity of the challenges is no longer limited to technical aspects: engineers must now face the social, economic, and political complexities. Over the past few decades, Engineering Systems has emerged as an interdisciplinary field of study to address these unexpected challenges in complex systems such as energy, communications, infrastructure, transportation, healthcare, and many others.

CESUN aims to address the great challenges posed by large-scale, interconnected, and therefore highly complex and dynamic, sociotechnical systems; bringing to bear engineering knowledge and leveraging the increased availability of data. The Tenth International Engineering Systems symposium (CESUN 2025) seeks to bring together researchers from multiple domains and methodological backgrounds who share a common interest in tackling complex sociotechnical systems problems. We welcome submissions on any traditional CESUN topic, but particularly encourage work that speaks to a crosscutting theme, such as:

- Complex systems design, operation, and evolution
- Humans in engineering systems
- Systems in the societal context
- Technology management and policy
- AI/ML in engineering systems
- Engineering systems education
- Methodological advances in engineering systems

CESUN invites submissions from a wide range of application areas where these crosscutting themes have been implemented. Relevant fields include, but are not limited to, aerospace, defense, energy, healthcare, critical infrastructure, and supply chain systems.

Submission Process: All contributions **must be received by December 15th 2024.** There are two options for submission:

January 25, 2025

- Short Papers (3-4 pages, IEEE format) for oral presentations. Short papers will be peer reviewed and should include preliminary results. Submissions not selected for oral presentation will be considered for the poster presentation.
 - Note: Different from previous CESUN's, this year we will offer an optional Personalized Feedback track to foster an environment of constructive criticism, particularly for those works in an early stage of their respective careers. If authors choose to elect this option, they will be paired with a senior CESUN attendee, who will take the stage after the authors' presentation and guide a constructive feedback session with the audience.
- <u>Abstracts (up to 500 words) for poster presentations.</u> Abstracts will be reviewed for relevance and fit. There will be a dedicated poster session at the symposium.

All submissions should include the full name, affiliation (including both department and organization name), and email address of all authors.

Awards will be given for Best Presentation and Best Poster, based on a judging committee's recommendations.

To submit, please go to the <u>CESUN 2025 website</u> and follow the abstract submission link.

CESUN *Graduate Student Colloquium* and *Faculty Session* on June 9th: We will use the first day of CESUN (June 9th) to host two parallel sessions, one dedicated for Graduate Students and the other for Faculty. There will be no regular sessions during this day. Stay tuned for more details.