

The **2020 AI4SE/SE4AI Workshop** will be held October 28-29 virtually on Microsoft Teams. Participation is limited to US Citizens only. Abstracts are sought for presentations from government, industry and academia addressing key Artificial Intelligence (AI) and Systems Engineering (SE) initiatives. All abstracts and presentations must be approved for public release.

Objective

The objective of this workshop is to bring key stakeholders together from across industry, government, and academia with the purpose of broadening our knowledge of subject areas and defining a small set of high-impact research priorities that align with CCDC AC and SERC AI/SE priorities.

TOPICS OF INTEREST INCLUDE:

AI for Systems Engineering (AI4SE)—Evolution of SE processes driven by AI/ML technology and the need to manage and control autonomous systems

- AI abstraction
- AI Requirements/specification
- Evidence-based design and test
- The SE Advisor
- Education and training at the AI/SE intersection

Systems Engineering for AI and Autonomy (SE4AI)—Systems that might adapt and learn in their deployment, particularly at scale, are a challenge for current SE processes

- AI risk analysis
- AI resilience
- AI test and evaluation
- Adaptive simulation
- Adaptive cyber-physical-human systems
- Trustworthy AI
- System architecting for data collection
- System design to manage AI risk and limitations

Digital Engineering—An enabler of AI

- AI curation
- Automated search, model-building, and cost estimation
- Automated evidence building
- Anticipatory design
- Automated simulation
- Digital Twin automation

AI and Machine Learning Technology—basic technologies of AI/ML and autonomy that will both enable AI4SE and evolve SE4AI processes

- Multi-modal AI
- Cognitive bias
- Hybrid human/AI systems
- Contextual sensemaking
- Life-Cycle ready AI

Submission Deadline

Abstracts must be submitted no later than **September 25, 2020**.

Submission Schedule

Abstracts are sought for presentations from government, industry and academia addressing key AI and Systems Engineering related initiatives. Authors should submit abstracts relevant to the workshop theme and sub-themes. Abstracts should be clear and address AI enablers and technologies to the Systems Engineering community at large.

Submission Deadline: September 25, 2020

Notification to Authors: October 1, 2020

Final Program: October 19, 2020

Submission Guidelines

Abstracts must be submitted via email to both Ms. Kara Pepe (kpepe@stevens.edu) and Mr. Albert Stanbury (albert.w.stanbury.civ@mail.mil). All requested information must be completed for an abstract to be considered. Once an abstract has been received, a confirmation email will be sent to the principal author.

Each author must provide the following data:

Principal Author/Presenter: the full name and contact information for the principal author. This person is the main contact for the abstract/presentation and will receive all notifications, confirmations, and further instructions. They will also be listed as the presenter in the workshop program if the abstract is selected for presentation.

Additional Authors: Any additional authors for the abstract submission should be listed and their names will appear on the “Additional Authors” page in the workshop program and report.

Author Biographies (2000-character limit): The presenter’s biography must be submitted for use by the session chair during the forum. Short introductory comments are preferred.

Title (200-character limit): please enter the title of the presentation

Abstract Text (**1-page limit**): place the content of the abstract here. Do not insert graphics or tables.

Tips for Authors

Abstracts should clearly outline the summary of the project objectives, results, benefits to defense capability and the warfighter. It is desired that abstracts link to the AI4SE/SE4AI Workshop theme and discuss specific capability benefits. Your title should be concise as it will be listed in the workshop program. Submissions must be appropriate for an open 30-minute oral presentation which includes 5 minutes for questions and answers. Presentation guidelines will be provided with notices of presentations selected.

Disclosure

The AI4SE/SE4AI Workshop is an unclassified workshop. All abstracts and presentations must be approved for public release.