

Recent Trends and Advances in Model-based Systems Engineering

Mar 19-21, 2020, Crowne Plaza Hotel, Redondo Beach, CA

Conference General Co-Chairs, USC



Prof. Azad M. Madni
*Systems Architecting
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Prof. Daniel Erwin
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Systems engineering is undergoing a transformation motivated by mission and system complexity, and enabled by technological advances such as model-based systems engineering, digital engineering, formal modeling, and the convergence of systems engineering with other disciplines. This conference is focused on exploring recent trends and advances in model-based systems engineering (MBSE) and the synergy of MBSE with simulation technology and digital engineering. The 18th Annual Conference on Systems Engineering Research (CSEAR) invites researchers to submit papers on MBSE methods, modeling approaches, standards, languages, and economics analysis to respond to the challenges posed by 21st century systems.

Research Paper Topics

- Model-Centric Engineering
- Digital Transformation
- Digital Engineering, Digital Twin, and Digital Thread
- Cyber-Physical-Human-Systems
- Internet of Things
- Non-Deterministic Evolutionary Systems
- Integration of MBSE with Simulation Technology
- Integration of Humans with Intelligent Systems
- Verification of Intelligent Systems
- Modeling for Continuous Development and Deployment
- Model-Based Verification and Testing
- Economic Analysis of MBSE
- Autonomous Systems
- Human-Machine Teaming
- Human-Machine Collaborative Decision Making
- Role of Machine Learning in MBSE
- Model Curation
- Integrating Models across Life Cycle
- Human-Technology Integration
- Modeling the System Qualities Tradespace

Important Deadlines

- **November 1, 2019:** Full Papers Due
- **December 15, 2019:** Notification to Authors
- **February 1, 2020:** Final Conference Papers Due
- **March 19, 2020:** Tutorials and SEANET Graduate Students' Forum at USC
- **Link:** <https://cser2020.org/>

Conference Co-Managers



Mr. Eric Belle
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Mr. Terry Rector
The Aerospace Corp.