

🌐 United States 📅 August 3-7, 2025

CONFERENCE WEBSITE: <https://systemdynamics.org/conference/>

| About the Conference

Dear colleagues,

We invite you to join us in Boston, Massachusetts, USA for the 43rd International Conference of the System Dynamics Society on 3 - 7 August 2025.

The 2025 conference theme is "Incorporating AI into Dynamic Modeling." As artificial intelligence (AI) applications expand across various domains like marketing, research, and programming, their integration into dynamic modeling has also increased. Within the System Dynamics (SD) domain, AI has been used to analyze patterns in simulation data, convert text to causal loop diagram (CLD), create small models in the XML Modeling Interchange Language (XMILE) format, and generate persona to serve as agents in dynamic models, among other applications.

Since its inception, the SD community has strived to incorporate new advancements in science and technology. We invite research papers and

Important Dates

 **AUG 03** CONFERENCE DATE
August 3-7, 2025

practitioner applications on any topic where dynamic modeling and AI intersect. How can AI improve SD modeling across all stages of modeling including problem articulation, dynamic hypothesis, formulation, testing, and policy formulation and evaluation? Can AI contribute to the automation of certain aspects of SD modeling processes? How might AI improve the visualization and interpretation of SD model outputs? How can AI-driven sensitivity analysis techniques enhance our understanding of model behavior and assist in identifying key leverage points within complex systems? What are the challenges and opportunities associated with using AI to support collaborative modeling efforts? How can AI contribute to improving the teaching of SD? Can AI support novice modelers in both developing and testing their models? Are there potential ethical considerations or biases to be aware of when integrating AI into SD modeling? Will AI replace so many jobs that unemployment will rise significantly and people's standard of living will fall?

We also invite researchers and practitioners from a cross-section of disciplines to submit finished work and work in progress that applies dynamic modeling-SD, agent-based, discrete event-to any of these areas: public policy, methodology, environment and resources, business and strategy, operations, health, psychology and human behavior, economics, teaching, security and resilience, and transportation, among others.

PROGRAM

The program includes plenary presentations that showcase important work in the field, parallel and poster sessions that present the most current research and applications, work-in-progress sessions to exhibit upcoming research, and a full day of skill-building workshops covering topics from basic software use to advanced analysis techniques. Panel discussions, special interest group sessions, student colloquia, vendor exhibits, and demonstrations round out the program. The conference schedule provides time for social and professional interaction.

AREAS OF INTEREST

Submit your work in business and strategy, diversity, economics, environment and resources, health, learning and teaching, operations, methodology, psychology and human behavior, public policy, stakeholder engagement, security, stability and resilience, and transport and mobility.

SUBMISSION

Please submit your contributions between 21 January and 18 March 2025. We accept a number of contribution types:

- Research papers
- Practitioner applications
- Work in progress descriptions
- Workshop proposals
- Other session proposals, such as for panel discussion sessions

The 2025 conference program will include invited

and contributed sessions. Special proposals for plenary or parallel sessions, panel discussions, and other pre- or post-conference activities are encouraged. If you have ideas for sessions and workshops focused on practical issues, please contact us. Proposals should be sent to: progchair@systemdynamics.org.

You can find more information here:
<https://systemdynamics.org/submission-instructions/#submission-types>.

ISDC proceedings don't exclude authors from submitting work to a journal. Authors can submit work to ISDC that has been submitted to other conferences.

We look forward to your submission!

Christine Tang

ISDC Program Assistant

on behalf of

ISDC 2025 Program Chairs

Reply to: progchair@systemdynamics.org

Karim Chichakly is the co-president of isee systems, inc. and an adjunct professor of System Dynamics at Worcester Polytechnic Institute. He

has almost three decades of experience on modeling projects in business strategy, project management, health care, public policy, and the environment for a variety of clients across businesses, non-profits, and government. He has extensive experience in training and teaching at both the undergraduate and graduate levels. He spearheaded the development of the XMILE interchange standard for system dynamics models.

Niyousha Hosseinichimeh is an assistant professor at the Grado Department of Industrial and Systems Engineering at Virginia Tech. Her research focuses on developing and applying methods to improve health and healthcare systems. She uses simulation models to help stakeholders improve their understanding and decision-making in complex dynamic systems. She has applied a system dynamics approach to diverse health issues including infant mortality, mental health, and alcohol-impaired driving among teens. Her methodological contributions include expanding calibration methods for dynamic models and developing techniques for system dynamics group model building.

Rod MacDonald is an associate professor in the School of Integrated Sciences at James Madison University. He teaches classes in system dynamics modeling at both the graduate and undergraduate levels. With over 25 years of experience, Rod specializes in developing simulation models as

decision-support tools for a wide range of entities, including local, state, and federal agencies, as well as numerous businesses-from Fortune 500 companies to small medical groups.

 **TOPICS OF INTEREST**

3 topics

Research papers are invited in, but not limited to, the following areas:

Uncategorized

Law & Policy

Artificial
 Intelligence & Machine Learning