2016 Winter Simulation Conference

Todd Huschka (General Chair)
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Hybrid Simulation Track
Call for Papers

*** Extended deadline for contributed papers is now April 6 ***

Track Coordinators
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The Winter Simulation Conference (WSC) is the premier international forum for disseminating recent advances in the field of dynamic systems modeling and simulation. In addition to a technical program of unsurpassed scope and quality, WSC provides the central meeting place for simulation practitioners, researchers and vendors. Research in modeling and simulation is propelled by fostering cross-fertilization between various disciplines. The 2016 edition of the Winter Simulation Conference will feature **"Hybrid Simulation"** as a full track. Track description follows.

Simulation methods enable stakeholders to analyze and evaluate strategies for effective management of complex systems. It is therefore not surprising that an increasing number of studies have used techniques such as discrete-event simulation, Monte Carlo simulation, system dynamics, Markov chain and agent-based simulation to make better and more informed decisions. However, such techniques have frequently been applied in isolation. The complexity of systems and their multi-faceted relationships may mean that the combined application of simulation methods, or hybrid simulation, will enable synergies across techniques and will provide greater insights to problem solving. The aim of this track is therefore to solicit papers that focus on combining techniques (e.g., discrete and continuous). In particular, the papers must demonstrate the need for hybrid simulation and how this approach could be used for modeling and simulating complex systems.

Topics include, but are not limited to, the following:
- Synthesis of existing literature in hybrid simulation and Bibliometric analysis
- Methodology, e.g., papers presenting the conceptualization of hybrid simulation through use of frameworks and modelling formalisms
- Technical papers focussing on development of software artefacts for facilitating hybrid simulation, e.g., parallel and distributed simulation
- Case studies that have applied hybrid simulation in domains such as manufacturing, logistics and supply chain, healthcare
- Papers focusing on continuous simulation/systems dynamics that incorporate discrete elements
- Combined application of modelling and simulation with other well-defined OR techniques (including soft OR)
- Classification of mixed method simulation

The track coordinators also encourage papers on the combined application of simulation methods with the wider modelling techniques that are frequently used in Operational Research (OR), for example, papers that have applied DES and game theory, ABS with metaheuristics, SD papers that have used soft Operational Research methods like problem structuring, simulation papers that have delved into statistical techniques associated with data-mining and predictive analytics.

The track will be organised into specific themes, for example:
- Methodological aspects of Hybrid Simulation
- Modeling human behavior using Hybrid Simulation
- Hybrid Simulation for healthcare planning
- Hybrid Simulation for planning and scheduling
- Hybrid Simulation for sustainable operations management
- Combined application of Hybrid Simulation with wider OR techniques

CONTRIBUTED PAPER DEADLINES

- **April 6, 2016**: Electronically submit contributed papers not previously published or presented. Papers should be at most 12 pages (including an abstract of not more than 150 words), except for introductory tutorials, advanced tutorials, and panel sessions, for which the limit is 15 pages. Submission implies that an author will attend WSC 2016 and present the paper, and all clearance required for publication of the paper will be obtained by July 15, 2016. Use of the authors' templates in one of the following formats is required: Microsoft Word or LaTeX. Submissions must be made through the WSC website www.wintersim.org.

- **June 1, 2016**: Contributors will be notified whether their paper has been accepted.

- **July 15, 2016**: Authors electronically provide a final manuscript meeting all technical and format requirements to the Proceedings Editor.

LOCATION

WSC 2016 will be held in Arlington, Virginia, just outside of Washington, D.C. at the Crystal Gateway Marriott on December 11-14, 2016.

WSC 2015 is sponsored by ACM/SIGSIM, ASA (Technical Co-Sponsor), ASIM (Technical Co-Sponsor), IEEE/SMC (Technical Co-Sponsor), IIE, INFORMS-SIM, NIST (Technical Co-Sponsor) and SCS.