



Springer

Call for Papers

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Important Dates

Intent to submit 01 Dec 2023

Paper submission 01 Mar 2024

Notification 01 May 2024

Software and Systems Modeling



Theme Section: Modeling and Sustainability

The perception of the value and propriety of modern engineered systems is changing. In addition to their functional and extra-functional properties, nowadays' systems are also evaluated by their sustainability properties. The next generation of systems will be characterized by an overall elevated sustainability—including their post-life, driven by efficient value retention mechanisms. Current systems engineering practices fall short to support these ambitions due to the highly multi-systemic and stratified nature of sustainability, and need to be revised appropriately.

Modeling offers numerous benefits in understanding and assessing the sustainability properties of engineered systems. Modeling languages and tools support subject matter experts in expressing their views, process models allow for reasoning about trade-offs across the end-to-end systems engineering process, and runtime models allow for controlling engineering endeavors for sustainability. These are just a few of the many ways to support sustainability ambitions by modeling. It is, however, equally important to develop sustainable model-driven engineering techniques to avoid defeating the purpose.

To this end, the *Journal of Software and Systems Modeling* (SoSyM) prepares a theme section on “Modeling and Sustainability” and invites high-quality submissions covering topics including but not limited to

- modeling for sustainability and sustainability of modeling,
 - technical sustainability: system/model (co-)evolution, techniques promoting prolonged system lifecycle
 - environmental sustainability: energy consumption of modeling, modeling and simulation of energy consumption
 - social sustainability: ethical concerns and modeling4good
 - economic sustainability: quality and cost trade-offs, cost assessment methods
- modeling languages and formalisms for sustainability
- frameworks and tools
 - reference frameworks, taxonomies, ontologies
 - open-source modeling and simulation tools
- digitalization for sustainability: Digital Twins, Digital Thread
- Industry 5.0 as a sustainability-focused movement
- sustainable and circular systems engineering
- empirical inquiries, surveys, case studies, tool evaluations
- training and education, especially on the topic of developing the next generation of systems engineering professionals

General Author Information

- Papers must be written in a scientifically rigorous manner with adequate references to related work.
- Submitted papers must not be simultaneously submitted in an extended form or in a shortened form to other journals or conferences. It is however possible to submit extended versions of previously published work if less than 75% of the content already appeared in a non-journal publication, or less than 40% in a journal publication. Please see the [SoSyM Policy Statement on Plagiarism](#) for further conditions.
- Submitted papers do not need to adhere to a particular format or page limit, but should be prepared using font “Times New Roman” with a font size no smaller than 11 pt, and with 1.5 line spacing. Please consult the [SoSyM author information for submitting papers](#).
- Each paper will be reviewed by at least three reviewers.

Making a submission

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- Communicate your intent to submit a paper by emailing the theme section editors the following information before the Intent to Submit deadline:
Title, Authors, and an Abstract.
 - Possible submission formats are:
 - PDF (saved as readable in version 5.0 or earlier) – preferred
 - Word (.doc, without macros)
 - Rich Text Format (.rtf)
 - Submit your work using the online submission system [manuscript central](#):
 - In step 1, select “Theme Section Paper” as the manuscript type.
 - In step 5, make sure field “Cover Letter” includes the line: “Submission for Theme Section on Modeling and Sustainability”.

Further information

If you have any questions or require additional information about this theme section, please contact the editors.