Springer

Software and Systems Modeling

Call for Papers

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Important Dates

Intent to submit	15-Feb-2026
Paper submission	15-Jul-2026
Notification	15-Oct-2026

Theme Section:
Software and Systems Modeling in Industry 5.0

Model-based and model-driven engineering approaches have become well-established practices in manufacturing with the emergence of Industry 4.0 and now Industry 5.0 is gaining momentum, leveraging a range of widely-known modeling languages and tools. For instance, AutomationML, Asset Administration Shells, OPC UA, SysML, and many more. Alongside modeling standards, numerous domain-specific languages and tools accommodate specific requirements across different applications. In addition, low-code development recently has emerged as a significant success story of modeling, allowing a broader audience to engage in Industry 5.0 processes where the human factor is in the center. Yet, rigorous reports on successful and unsuccessful applications of software and system modeling in Industry 5.0 are rare. To address this gap, this theme section of the Journal on Software and Systems Modeling (SoSyM) aims to provide a platform for researchers and practitioners to report emerging results, evidence of success or failure, and best practices on software and systems modeling in Industry 5.0. Therefore, SoSyM invites original, high-quality submissions for its Theme Section on Industry 5.0 Applications of Software and Systems Modeling.

The *Journal of Software and Systems Modeling* (SoSyM) invites original, high-quality articles describing any aspect of modeling in industrial practice are in scope and we would particularly encourage submissions addressing:

- AI support and human-AI interaction in software and systems modeling
- Application of new and emerging technologies, e.g., AI-based simulation, virtual commissioning or digital twins, to software and systems modeling
- Asset modeling, such as with the digital product passport
- Collaborative modeling support within and across enterprises
- Ecosystems in software and systems modeling (i.e., large-scale modeling in Industry 5.0)
- Empirical inquiries, systematic surveys, tool evaluations
- Industry reports, case studies, frameworks, and tools
- Novel domain-specific modeling languages, techniques, and methods
- Usability and scalability in industrial software and systems modeling applications

Evaluation Criteria

Submissions must provide an appropriate form of validation of the claims made in the paper. This can come in many forms and combinations, such as an empirical study on the performance or a controlled experiment of some tool approach related to the operational function compared to other similar tools, a human-based empirical evaluation, a deep user survey that assesses a new modeling approach and its benefits toward users, or a very detailed case study on some real system that provides argumentation and demonstration of the benefits of a modeling technique.

Papers submitted to this theme section will be evaluated primarily on the potential impact of their findings. Specifically:

- The manuscript must describe the context of the application of modeling and which problem this addresses.
- The manuscript should include a concise explanation of the approaches, techniques, methodologies, and tools used.
- The manuscript should report on the efficacy of the application, ideally in comparison to alternatives, and/or what new lessons have been learned or insights have been gained.
- Manuscripts that report negative results must include a thorough discussion of the possible causes of the failure and, ideally, provide a perspective on how to address them.
- Authors are encouraged to make artifacts publicly available, e.g., via a GitHub repository or an alternative that is expected to provide long-term availability.

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. Manuscripts in which at least 75% of the content appears in a non-journal publication or in which at least 40% appears in a journal publication will not be published. 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. Please consult the SoSyM author information for submitting papers for more details.
- Each paper will be reviewed by at least three reviewers.

Making a submission

- 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:
  - Word (.doc, without macros)
  - Rich Text Format (.rtf)
  - PostScript (.ps, special fonts must be embedded)
  - PDF (saved as readable in version 5.0 or earlier)
- 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: "Theme Section: Software and Systems Modeling in Industry 5.0".

Further information

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