

Call for Papers

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Important Dates

Intent to submit 01-Feb-2024 Paper submission 01-Mar-2024 Notification 01-Jun-2024



Theme Section:

Model-based Engineering for Internet of Robotic Things Applications

The theme section on model-based engineering for Internet of Robotic Things applications aims to facilitate the sharing of research findings, ideas, and experiences on new design approaches and practices in the Internet of Robotic Things (IoRT) domain in general, and data-centric IoRT applications in particular. IoRT systems offer significant advances and benefits in many aspects of human life. They have emerged as central enabling technology in a wide range of applications and domains, including agriculture, manufacturing, industry, smart-home, and health. However, the design, implementation, and operation of IoRT systems are challenging due to the need to collect, manage, and analyze possibly large amounts of complex, heterogeneous data. Techniques and tools from model-based engineering and conceptual modeling might be useful to address these challenges, especially if suitably tailored to the IoRT domain.

This theme section aims to be a point of contact for practitioners and researchers from different communities such as Software Engineering, Model-based Engineering, Conceptual Modeling, Databases, Business Process Management, Distributed Systems, Formal Methods, and Information Systems, and aims at creating a dialogue centered on the development of scientific foundations for the management and analysis of data in IoRT systems. The main topics relevant to the theme session include but are not limited to:

- Conceptual modeling and languages for IoRT systems and data
- Model-based engineering for IoRT systems and data
- Low code methods for IoRT systems
- Integration and querying IoRT data
- Requirement engineering for IoRT systems
- Conceptual modeling of IoRT-based Artificial Intelligence
- Edge-Fog-Cloud architectures design for IoRT
- IoRT data and QoS modeling
- Modeling Real-time, NoSQL databases for IoRT
- Data stream management systems design for IoRT
- IoRT data monitoring and analysis
- Digital Twins design for IoRT systems
- IoRT embedded data management design
- Real-life (Urban, agriculture, health, ...) IoRT applications

General Author Information

Making a submission

Further 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. Please consult the <u>SoSyM author information for</u> submitting papers for more details.
- Each paper will be reviewed by at least three reviewers.
- 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:
 - o Word (.doc, without macros)
 - o Rich Text Format (.rtf)
 - o PostScript (.ps, special fonts must be embedded)
 - o PDF (saved as readable in version 5.0 or earlier)
- Submit your work using the online submission system <u>manuscript</u> central:
 - o In step 1, select "Theme Section Paper" as the manuscript type.
 - O In step 5, make sure field "Cover Letter" includes the line: "Submission for Theme Section on IoRT".

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