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**Programme Committee:**

TBC

**Important dates:**

Paper submission: Jul 30, 2023

Notification of acceptance: Aug 21, 2023

Camera-ready submission: Sep 29, 2023

Presentation submission: Oct 2, 2023

**Description:**

Internet of Things-based systems are becoming increasingly popular across different domains and their development is rapidly increasing to provide value-added services to end-users and citizens. In industrial contexts, the emergence of the Industrial Internet of Things (IIoT) is followed by a tremendous increase in the complexity of developing and operating such systems. There is a gap in the literature when considering the core software processes for design, development and manage IoT systems throughout their entire lifecycle. Thus, software and systems engineers find themselves most of the time unprepared and unfamiliar with this new genre of system development. Despite the tremendous progress in software engineering approaches and technologies in recent years, they do not seem to reach the industry when developing processes for IIoT systems. More comprehensive and systematic views on all aspects of systems and their development process are required. This Special Session invites researchers and practitioners to share their experiences and innovative concepts related to the design of software for IIoT systems. The Special Session aims to:

1. Provide a platform for researchers, practitioners, and industry experts to share their latest findings, experiences, and insights related to software engineering for the IIoT.
2. Foster collaboration and knowledge exchange among participants from academia and industry, promoting interdisciplinary discussions on software engineering approaches and best practices specifically tailored for IIoT systems.
3. Explore innovative software engineering methodologies, tools, and techniques that address the unique challenges posed by IIoT, such as scalability, heterogeneity, real-time requirements, and data management.
4. Discuss the integration of IIoT with software design and computing paradigms, including cloud computing, edge computing, and artificial intelligence, to enable efficient and intelligent IIoT system development.
5. Identify emerging trends, open research problems, and future directions in software engineering for IIoT, encouraging participants to collaborate on potential research projects and industry initiatives.

**Topics of Interest:**

IIoT is rapidly expanding, with numerous industries adopting smart and connected systems to enhance efficiency, productivity, and automation. However, the development and management of IIoT software present unique challenges that require specialized software engineering approaches.

The Special Session aims to address but not limit to the following:

- Software engineering approaches and best practices for IIoT design and development
- Management of IIoT software
- Software modelling and languages for IIoT
- Usability of software development environments for IIoT engineering
- Function-Block Design and Low-code Development for IIoT systems
- IIoT integration with Software Design and Computing Paradigms



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**Paper Submission:**

All papers must be submitted through eWorks. You must choose the special session track (Spes-04) when submitting your paper in order to be considered for this special session. The paper should be up to six (6) pages in length. The conference allows up to two additional pages for a maximum length of eight (8) pages upon payment of extra page fees once the paper has been accepted.

The paper can be prepared using the template available through the Authors / Proposers tab from the WF-IoT conference website main page at:

<https://wfiot2023.iot.ieee.org>.

An alternative is to use the IEEE Word or Latex tools that can be found through:

<https://conferences.ieeeauthorcenter.ieee.org/write-your-paper/authoring-tools-and-templates/>.

Authors of accepted papers will need to provide a final version of your paper in PDF format and upload it by the camera-ready deadline and complete the assignment of copyright and release form. For your paper to be included in the proceedings and published in IEEE Xplore, at least one author is required to register for WF-IoT 2023 by the deadline.

**More information on the Special Session Track:**

<https://wfiot2023.iot.ieee.org/software-engineering-industrial-internet-things>

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