

🌐 Germany 📅 August 25-26, 2025

CONFERENCE WEBSITE: <https://pecs-workshop.github.io>

| About the Conference

PECS 2025 - Workshop on
Performance and **energy** Efficiency in Concurrent
and Distributed Systems (Co-located with Euro-Par
2025)

Dresden, Germany, August 25-26, 2025

<https://pecs-workshop.github.io>

Nowadays, concurrent and distributed systems play a role in a variety of computing applications. This is supported by the widespread use of computing architectures based on multi-core processors and distributed computing units, which have become a standard de-facto at any system scale.

However, the increasing level of hardware parallelism and heterogeneity has made concurrent and distributed systems even more complex to design, analyze and optimize. In particular, this concerns performance and energy efficiency, which are known to be highly interrelated. Nonetheless, they play a key role, even because of the increasing global electricity demand by the IT sector.

Important Dates

 **AUG 25** CONFERENCE DATE
August 25-26, 2025

In concurrent and distributed systems, energy efficiency and performance can be affected in a complex way by various factors, such as the concurrent use of computing resources, the distributed communication, the presence of (distributed) data dependencies and, ultimately, the need for synchronization of concurrent threads/processes. However, these and other factors also offer opportunities to be explored in the design of techniques and tools for improving energy efficiency and performance.

PECS aims to establish a venue for both academia and industry to discuss challenges and perspectives, and to explore methods, techniques and tools for energy efficiency and performance analysis and optimization in concurrent and distributed systems.

PECS calls for high-quality research papers on all aspects of energy efficiency, performance and their interrelations in concurrent and/or distributed computing systems, focusing on (but not limited to) the following topics:

- Energy efficiency and performance optimization in multi/many-core architectures
- Carbon efficiency and sustainable computing and system architectures
- Energy efficiency and performance analysis and optimization in concurrent and distributed **algorithms**
- Analysis and optimization of energy efficiency and performance in distributed and heterogeneous computing architectures

- Parallel, concurrent and distributed programming approaches and tools for improving energy efficiency and performance
- Energy-efficient and performance optimized algorithms and frameworks for (Big) Data Processing, **machine learning** algorithms and AI applications
- Energy efficiency in high-performance computing platforms and applications
- Energy efficiency and performance aspects in Cloud, IoT, Edge and Fog Computing
- Approaches and techniques for improving energy efficiency and performance in **data management** and services
- Energy efficiency and performance evaluation and optimization in operating systems, networks and virtualized systems
- Energy impact evaluation and optimization in algorithms for security and their applications

Important Dates

Paper Submission: May 5, 2025

Paper Notification of Acceptance: June 23, 2025

Camera-Ready Submission: July 7, 2025

Workshop Days: August 25-26, 2025

Paper Submission

Papers must be written in English, with a minimum of 10 and a maximum of 12 pages, including text,

references, appendices, figures and any other elements. Papers must present original work that has not appeared and is not under review elsewhere, and must be formatted according to LNCS guidelines

(<https://www.springer.com/gp/computer-science/lncs/conference-proceedings-guidelines>).

Papers must be submitted via EasyChair (the submission link is available on the PECS 2025 website - <https://pecs-workshop.github.io>). PECS uses double-blind review, i.e. the identity of authors and reviewers will not be revealed to each other. Therefore, all information that may allow authors to be identified should be removed from the submitted paper, such as authors' names and affiliations, acknowledgements, funding information, and all references to authors' work that may reveal their identity. This information may be added later to accepted papers.

Paper Publication

Workshop proceedings will be published in a dedicated Springer LNCS volume. Only the accepted papers presented at the workshop will be published in the final proceedings.

Venue

PECS 2025 is co-located with the 31rd International European Conference on Parallel and

Distributed Computing (Euro-Par 2025) and will be held in Dresden, Germany.

Workshop website

<https://pecs-workshop.github.io>

TOPICS OF INTEREST

3 topics

Research papers are invited in, but not limited to, the following areas:

Computer Science
& Software
Engineering

Networking &
Cloud Computing

Uncategorized