Call for Papers

Special Session on

Neurorobotics

at the 34th International Conference on Artificial Neural Networks ICANN 2025

Neurorobotics brings together interdisciplinary research in machine learning, robotics and bio-inspired artificial intelligence, most prominently using artificial neural networks. Following the understanding by building methodology, cognitive robotics employs neural models in robots that interact with and learn from complex and multimodal environments thus gaining their cognitive abilities. In connection with HRI, cognitive modeling represents a way to make robots more considerate and aware of people as well as make their behavior more legible and explainable and make interaction with robots smoother and more efficient promoting advances in HRI. After two successful Neurorobotics special sessions in ICANN 2023 and 2024 we are announcing the third edition of this session organized under the Horizon Europe project TERAIS. We want to bring together researchers with diverse backgrounds and expertise to promote collaboration and knowledge sharing in the field of neurorobotics, cognitive robotics and human-robot interaction.

SPECIAL SESSION TOPICS

- Neural control and learning in robotics
- Cognitive architectures for robots
- Bio-inspired and developmental robotics
- Human-robot interaction and collaboration
- Trustworthy, human-aware and explainable robots
- Computational models for robotic applications

SUBMISSION INSTRUCTIONS

Contributions (full papers or extended abstracts) have to be submitted through the regular ICANN submission system at

https://e-nns.org/icann2025/

Select track **Special Session on Neurorobotics**. Accepted papers to the special session will be published in the proceedings of the ICANN 2025 conference.

IMPORTANT DATES

- Paper submission deadline: April 30, 2025
- Notification of acceptance/rebuttal: May 31, 2025
- Camera-ready paper upload: June 15, 2025
- Conference dates: September 9-12, 2025

ORGANIZERS

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