

## Special Issue

# Reinforcement Learning: Sample Efficiency, Generalisation, and AI Applications

### Message from the Guest Editors

This Special Issue seeks to highlight **recent advances, novel applications, and underexplored dimensions** of RL that are shaping the future of intelligent systems. We particularly welcome contributions that introduce innovations in **experience replay, algorithm design, sample efficiency, generalisation, safety, interpretability, and real-world deployment**. We invite researchers and practitioners from diverse disciplines to contribute high-quality work—ranging from theoretical developments and methodological insights to applied research and interdisciplinary case studies. This is a timely opportunity to exchange ideas, inspire new directions, and spotlight impactful use cases of RL. **Topics of Interest include, but are not limited to the following:**

- RL for robotics, dexterous manipulation, and swarm intelligence;
- RL in autonomous driving, drone navigation, and transport systems;
- Sample-efficient, generalisable, and robust RL algorithms;
- New paradigms in experience replay and memory architectures;
- RL in control of nuclear plants, water systems, and renewable energy grids;
- RL for training or fine-tuning large language models (LLMs);
- Human-in-the-loop RL and preference-based learning;
- .....

### Guest Editors

Dr. Abdulrahman Altafhan

School of Computer Science, University of Leeds, Leeds LS2 9BW, UK

Prof. Dr. Vasile Palade

Centre for Computational Science and Mathematical Modelling,  
Coventry University, Coventry CV1 2TL, UK

**Deadline for manuscript submissions**



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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[electronics@mdpi.com](mailto:electronics@mdpi.com)

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## About the Journal

### Message from the Editor-in-Chief

*Electronics* is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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### Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di  
Torino, 10129 Torino, Italy

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