

Special Issue

of the **Infocommunication Journal**

Advanced Distributed Optimization for Edge-Intelligence Communication Systems

With the development of artificial intelligence and intelligent systems, multi-agent has been widely applied in practical edge-intelligence communication systems such as mobile edge computing networks, industrial Internet of Things (IoT), smart cities, smart home and smart grid networks. In these applications, multiple agents interact with each other by exchanging the training model or gradients, where a centralized node is often used to gather the status and reward of all the agents. This however brings a huge burden on the communication and a potential issue of information leakage and data island. To solve these issues, distributed optimization has been proposed to apply in the multi-agent learning, whereas federated learning is a typical form of distributed optimization to break dilemma of data island. There are still several fundamental challenges for the advanced distributed optimization in multi-agent learning for the edge-intelligence communication systems, from the aspects of convergence analysis, communication overhead and resource allocations, which have attracted much attention from both academy and industry.

This special issue collects the latest results emerging on the field of Cognitive Infocommunications.

Special Issue Editors:

Prof. Lisheng Fan

Guangzhou University

George K. Karagiannidis

Aristotle University of Thessaloniki

Venki Balasubramanian

Federation University

Important dates:

Submission paper deadline: **30th of September, 2023**

Notification first review: **30th of November, 2023**

Deadline for revised paper: **30th of December, 2023**

Camera Ready: **20th of February, 2024**

Regarding manuscript submission information, please visit:
<https://www.infocommunications.hu/for-our-authors>



Call for Papers