

## Special Issue

# Analog AI Circuits and Systems

### Message from the Guest Editors

In the past few years, we have seen great resurgence of artificial intelligence (AI), thanks to the increase in computational resources. Although AI is maturing, it is still challenging to solve the gradient explosion problem caused by long sequence modeling in a neural network, further improve its calculation accuracy and reduce its computational complexity with data-driven applications. On the other hand, since the way we hear and see things is on a continuous wave, an analog circuit makes an electronic representation of our physical world. Analog circuits represent the key components of communications and other systems in widespread, growing commercial use. In recent years, implementing AI algorithms using analog circuits has attracted attention, although AI algorithms have traditionally been developed on graphics processing units (GPUs). This Special Issue invites fundamental and applied research work on all aspects of analog AI circuits and systems, including but not limited to the following topics:

- Artificial neural networks;
- Recurrent neural networks;
- Intelligent computing;
- Machine learning;
- Analog artificial intelligence circuits;
- Analog computing.

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### Guest Editors

Prof. Dr. Long Jin

Dr. Xuefang Nie

Dr. Jiliang Zhang

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### Deadline for manuscript submissions

closed (30 June 2022)



## Electronics

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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 guestedited by leading experts in selected topics of interest.

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### Editor-in-Chief

Prof. Dr. Flavio Canavero

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