# Special Issue

## Neural Circuit Modeling and Embedded Application for Computational Intelligence

### Message from the Guest Editors

This Special Issue focuses on recent advances in modeling and embedded applications in brain-inspired computation, which might be used for different purposes such as simulation of neural circuits, neural control engineering, synaptic learning rules, perceived tasks in edge computing, etc. Reviews of state-of-the-art brain-inspired artificial intelligence in embedded systems are also welcome. Topics in this Special Issue include (but are not limited to):

- Biophysical-based neuromorphic modeling from single neuron to large-scale neural network.
- Hardware acceleration strategies of neural circuit simulation on embedded systems.
- Closed-loop neuromodulation for neurological diseases such as epilepsy, Parkinson's disease, depression, etc.
- Hardware in-loop simulations for invasive or noninvasive brain stimulation technologies such as DBS, TMS, tDCS, tACS, etc.
- Embedded implementation of deep neural networks, including CNN, SNN, RNN, etc.
- Lightweight deep learning network for embedded platforms.
- Perceived intelligence applications in edge computing.
- Communication architectures involved in multi-core embedded systems.
- Synaptic learning rules in deep neural networks.

### Guest Editors

Prof. Dr. Xile Wei

Dr. Chia-Chu Chiang

Dr. Yazan M Dweiri

### Deadline for manuscript submissions

closed (31 July 2023)

# Electronics

# 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.

### Editor-in-Chief

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