Special Issue

Recent Advances in AI Hardware Design

Message from the Guest Editor

This Special Issue aims to bring together the latest research and developments in the field of AI hardware, topics of interest include the following:

- Field-programmable gate arrays (FPGAs)/system-on-chip (SoC) for AI: design methodologies, performance optimization, and applications.
- Application-specific integrated circuits (ASICs) for AI: custom chip designs, fabrication technologies, and performance benchmarks.
- Central processing units (CPUs) for AI: architectures, enhancements for AI workloads, and case studies.
- Graphics processing units (GPUs) for AI: latest advancements, parallel processing techniques, and real-world applications.
- Tensor processing units (TPUs) and neural processing units (NPUs): design principles, performance evaluations, and use cases.
- AI cloud solutions: hardware accelerations, edge computing integrations, and scalable AI infrastructures.
- Photonic/quantum AI chips: innovations in photonic technologies, integration with electronic systems, and emerging applications.
- Emerging AI hardware technologies: novel hardware paradigms, experimental results, and future directions.

Guest Editor

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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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