Special Issue

Embedded Systems for Neural Network Applications

Message from the Guest Editor

Various types of neural network models are being used for intelligent decision making in various types of embedded systems. Such systems are typically used in mobile environments and require extremely power-efficient circuits with fast inference capabilities. Examples include speech processing systems in smartphones, headsets, and earbuds; computer vision processing systems in tablets, smartphones, and smart eyeglasses; and real-time video processing systems for autonomous vehicles. Various models and techniques can be used to enable state-of-the-art artificial intelligence capabilities in such devices, even when used in low-network-bandwidth or unconnected environments. This Special Issue will investigate the latest state-of-the-art techniques for embedded computing in special-purpose neural network hardware, field-programmable gate array designs, and specially designed computer systems using mass-market general-purpose CPUs. All contributions investigating any aspects of embedded systems for neural network applications are welcome. Keywords

- embedded systems
- edge computing
- neural network
- low-power circuits
- neural accelerator

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Deadline for manuscript submissions

closed (15 September 2024)

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/140394

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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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