Energy-Efficient Computing Systems for Deep Learning

Guest Editors:

Dr. José Cano
School of Computing Science, University of Glasgow, Glasgow G12 8RZ, United Kingdom

Dr. José L. Abellán
Computer Engineering and Technology Department, University of Murcia, 30100 Murcia, Spain

Prof. David Kaeli
Department of Electrical and Computer Engineering, Northeastern University, Boston, MA 02115, USA

Deadline for manuscript submissions:
closed (31 December 2021)

Message from the Guest Editors

Dear Colleagues,

Deep learning (DL) is receiving much attention these days due to the impressive performance achieved in a variety of application areas. Aimed at achieving ever-faster processing of these DL workloads in an energy-efficient way, a myriad of specialized hardware architectures and accelerators are emerging.

The main objective of this Special Issue is to discuss and disseminate the current work in this area, showcasing new and novel DL algorithms, programming paradigms, software tools/libraries, and hardware architectures oriented at providing energy efficiency, in particular (but not limited to): Novel energy-efficient DL systems: heterogeneous multi/many-core systems, GPUs, and FPGAs; Novel energy-efficient DL hardware accelerators and associated software; Emerging semiconductor technologies with applications to energy-efficient DL hardware acceleration; Cloud and edge energy-efficient DL computing: hardware and software to accelerate training and inference; In-memory computation and in-network computation for energy-efficient DL processing; Machine-learning-based techniques for managing energy efficiency of computing platforms.

Special Issue

Editor-in-Chief

Prof. Dr. Marc A. Rosen
Faculty of Engineering and
Applied Science, University of
Ontario Institute of Technology,
Oshawa, ON L1G 0C5, Canada

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, AGRIS, RePEc, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (*Environmental Studies*) / CiteScore - Q1 (Geography, Planning and Development)

Contact Us