About Neuromorphic Computing and Engineering

Scope

Neuromorphic Computing and Engineering™ (NCE) is a multidisciplinary journal devoted to the design, development and application of artificial neural processing systems in advancing scientific discovery and realising emerging new technologies. Bringing together both the hardware and computational aspects of neuromorphic systems, the journal's audience extends to engineering, materials science, physics, chemistry, biology, neuroscience and computer science across academia and industry. Particular topics of interest include (but are not limited to):

- Design of novel artificial neural processing systems;
- Development of functional materials for neuromorphic systems and devices (including memristive switching materials);
- Biologically-inspired neuromorphic systems and devices (including adaptive biointerfacing and hybrid systems consisting of living matter and synthetic matter);
- Development of novel devices and hardware to enable neuromorphic computing;
- Computation and learning principles for neuromorphic systems;
- Neuromorphic implementations of neurobiological learning algorithms;
- Neuromorphic systems and theories for brain-inspired computation;
- Modelling of neuromorphic systems (including for example nonlinear biological systems);
- Neuromorphic sensing and actuating;
- Electronic circuits and chips for implementing neural processes (including plasticity mechanisms, synapses, adaptation, attractor networks and biosignal processing);
- Device, circuit, architecture design, analysis and optimization for neuromorphic computing systems;
- Complexity and scalability of neuromorphic systems;
- Reliability and security in neuromorphic systems;
- Applications of neuromorphic computing and engineering in industry;
- Emerging technologies for brain-inspired computing and communication.