

NEUROCOMPUTING JOURNAL

SPECIAL ISSUE

“ARTIFICIAL BRAINS”

Call for Papers

Guest Editors Prof. Dr. Hugo de Garis (Executive Editor of the Journal of Artificial General Intelligence (JAGI)), and Prof. Dr. John G. Taylor (European Chief Editor of the Neural Networks journal) invite you to submit an article for review to a special issue of the Neurocomputing journal, on the theme of “Artificial Brains”.

Background of Special Issue

Moore’s Law has made possible large clusters of PCs, increasingly powerful supercomputers, and more powerful FPGA based accelerator boards, etc. thus allowing builders of “artificial brains” more electronic capacity to pursue their goals. At the same time, the neuroscientists have provided increasingly detailed accounts of the anatomy and functions of the many cortical areas of the mammalian brain. This marriage of computer science and neuroscience is making the construction of “artificial brains” ever more timely, e.g. Markram’s efforts at EPFL (Switzerland) to model the function of a cortical column at synaptic level, or Artificial Development (AD) company’s efforts to simulate the whole human cortex on a PC cluster. The guest editors therefore feel that the moment has come to bring these disparate efforts together in a special issue on “Artificial Brains”. Some of these articles will be invited, and some will result from this call for papers.

About the Special Issue

The guest editors will accept a fairly broad interpretation of what is meant by the term “Artificial Brain”. The following list provides some possible interpretations :-

- i) Probably the most popular meaning is the attempt to use a cluster of PCs to simulate the collective behaviors of many cortical areas of the mammalian brain.
- ii) Constructing a network of neural networks, that behaves like an “electronic brain”.
- iii) Theoretical models of “whole brain” function.
- iv) Architectural models of the mammalian brain.
- v) Etc.

Submission Details

Articles for review should be submitted online in the Elsevier Editorial System (EES) via <http://ees.elsevier.com/neucom/>. If you are a first time user of the system, please register yourself as an author. Choose “Special issue: Artificial Brains” in the Article Type list when submitting.

Peer Review

All submissions, including invited submissions, will be peer reviewed, by 2 reviewers.

Deadline for Submission:

30th September 2008.

Further Questions

If you have further questions, please contact Prof. Hugo de Garis at profhugodegaris@yahoo.com