

EDINBURGH 26-29 JULY 2010



ICARIS 2010 - The 9th International Conference on Artificial Immune Systems

PerAda Workshop on Novel Applications of Bio-Inspired Computing to Pervasive Adaptation

Pervasive Adaptation (PerAda) refers to massive-scale pervasive information and communication systems which are capable of autonomously adaptation. PerAda systems are thus a special case of collective adaptive systems which have particular constraints e.g. they are networked and highly distributed; they involve interaction with humans; they are large scale; the boundaries of systems are fluid; their context is dynamic; and they operate using uncertain information. In spite of these constraints, PerAda systems must be capable of adapting seamlessly to their users and to their environment and to their own fluctuating composition. In order to address such problems, engineers are looking more and more towards biological systems, where nature has found many solutions to creating robust and adaptable systems.

The workshop seeks **two page position statements** on the following topics:

Novel and forward looking approaches to solving problems apparent in Pervasive Adaptive Systems through the use of biologically inspired computing.

Challenges for Pervasive Adaptation in the future with suggestions on how biological techniques may be used to address them.

The workshop particularly encourages statements which relate to the use of immune inspired computing, though statements are not limited to this aspect of bio-inspired computing.

PerAda
towards pervasive adaptation

All position statements will be refereed and accepted papers published in the ICARIS proceedings by Springer LNCS

Position statements should not be used to present results obtained using current research techniques, of the kind that would be normally be submitted to a technical conference.

*The workshop also seeks **practical demonstrations** which demonstrate the use of bio-inspired techniques in a pervasive adaptive systems. If you would like to demonstrate your research at this workshop, please mail icaris2010@napier.ac.uk.*

Organising Committee

Emma Hart
Jon Timmis
Martin Drozda
Lidia Yamamoto
Daniele Miorandi

Workshop Date: July 28th