Enactive Language in Embodied Robotics

The PhD studentship will support research to develop recent fundamental advances in the application of artificial intelligence (information theory, grounded semiotics, socially situated cognition and/or social learning) to realizing autonomous, meaningful linguistic activity in embodied organisms and robots. The enactive creation of relevant or meaningful information depends on temporally extended experience (which we define operationally) in a physical and social environment, on embodiment (which may well be changing), and on agent-specific notions of usefulness. The research does not approach linguistic meaning through representations via propositional semantics as a starting point, but rather regards linguistic behaviour as a socially situated motor activity allowing the adaptive agent to pragmatically manipulate the environment around it, including the social environment and influence on the actions of interaction partners. The work will employ autonomous humanoid robots interacting with humans as a test-bed.

The ideal candidate will be self-motivated with good writing and communication skills, an excellent programmer, mathematically and linguistically literate, have some familiarity with sensors, networking, scripting, and have experience with autonomous robots. A background in biology, evolution, artificial intelligence/life and/or philosophy (esp. R. G. Millikan, C. S. Pierce, M. Tomasello, later Wittgenstein) could be very beneficial for this post.

The PhD will be supervised by Prof. Chrystopher L. Nehaniv (C.L.Nehaniv@herts.ac.uk), whom interested candidates are invited to contact via email in the first instance.