



The Rince Institute
Researching Innovative Engineering Technologies
Dublin City University, Ireland



Artificial Life Laboratory Postgraduate Scholarships 2010

EvoSYM:

Emergence and evolution of biological
symbol systems
evosym.rince.ie

Complexity-NET



The Rince/DCU Artificial Life laboratory is offering two postgraduate study scholarships for students to work on the **EvoSYM** project. These are supported by the **Irish Research Council for Science, Engineering and Technology (IRCSET)** under the **Complexity-NET** funding scheme (European Network for the Coordination of Complexity Research and Training Activities). The project is a collaboration with partners in the **Bioinformatics group of Utrecht University (Netherlands)** and the **Artificial Intelligence Laboratory at Vrije Universiteit Brussel (Belgium)**.

Due to commence in October 2010, **EvoSYM** will investigate the emergence and evolution of **biological symbol systems** such as genetic coding (DNA – protein), RNA editing, cell signalling, etc., and potential applications in **robotics and distributed agent-based software**. The Rince/DCU Alife lab will focus on the origin and evolution of evolvable genetic translation in purely computational systems – specifically **coreworlds** (e.g., **tierra**, **nanopond** etc.) and **artificial chemistries** – which can model evolving software agents in networked computer systems.

Candidates should be interested and motivated by the fundamental problems of understanding and modelling the organisational properties of biological information processing systems. In your primary degree you should have already demonstrated excellence in a cognate scientific discipline, such as Engineering, Computer Science, or Biological Science. You should have achieved a Bachelors award at either First Class honours level or Second Class Honours Grade 1. You should have a solid grounding in systems- and software-engineering, with experience in object oriented software development. Finally, candidates must have excellent English language proficiency. The terms and conditions of the awards will be generally comparable to the **IRCSET Embark Postgraduate Scholarships**. In particular, the successful candidates will receive a maintenance award of €16,000 per year and cover university fees for up to three years.

Enquiries (with CV) by Friday, 30th July 2010, via email to:

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