

Network Action Proposal

Title:	Tactical Modular Conception for the Internal Simulation of Perception in Cognitive Systems. Experiments on the Aibo robot
Membership number(s)	108
Member name(s)	Cecilio Angulo
Member institute/company name(s)	Universitat Politècnica de Catalunya (Technical University of Catalonia)
Goals of the action	Developing a tactical modular architecture based on Intelligent Hardware Units for the emergence of behaviors. The approach is interesting from three point of view: 1) dynamical hypothesis of cognition: a collaborative control architecture with internal simulation of perception; 2) behavior-based robotics: a novel tactical modular conception behavior 3) cognitive systems: research on the mind-body separation problem by using internal robotics.
Principal activity to which it contributes <ul style="list-style-type: none"> o Community Outreach o Scientific Outlook o Education & Training 	Community outreach
Concrete outcomes of the action (at least one of which should be material suitable for publication on the euCognition website)	1) Short-term visit to the University of Genoa (DIST and LIRA Lab) for ten days developing the approach. 2) Pilot test-bed evaluation of the tactical modular conception on the Aibo robot 3) Demonstration of the system in the form of multimedia video clips. You can see some previous examples on the website http://www.ouroboros.org/evo_gaits.html 4) Articles for general readership about the approach development, experimentation and results.
Effort in person-days that will be charged to the Network Action (if any)	
Expected start and duration in months	July 1 st 2006, for three months: 10 days in July will be used for the short-visit to Genoa for discussing about and improving our approach. Rest of the time will be used to develop the remaining concrete outcomes.
The requested funding, under the following headings: <ul style="list-style-type: none"> o Travel Costs o Other Costs (check with the Network Coordinator if you aren't sure about eligibility of these costs) o Labour Costs (identify the number of person-days and the rate per day). 	Travel costs for the 10 days short-term visit: 1500 €
Please identify any other sources of funding that contribute to this Action (actions to support events such as workshop and conferences should include an outline budget identifying the total cost)	A mobility grant obtained from the Technical University of Catalonia (2600€) have been obtained for the previous work developed in the University of Genoa (DIST, SmartLab laboratory) for 4 months (March to June). As a member of the Pascal Research Network, a long visit grant was applied; unfortunately, this application has been denied according the advice of two reviewers: Reviewer 1: Please score from 1-5 (1=poor, 5=excellent) on:

- 1) scientific merit: 3
 - 2) integrative impact: 3
 - 3) expense of the proposal: 4
- Comments to the Proposer:

The proposed topic is relevant to the overall goals of PASCAL. The problem seems reasonably well motivated from an application point of view, but I would like to see a bit more on how the technical side connects to other ongoing work in machine learning: what known methods can be applied, what the impact of this research might be. The proposal as it is now written gives an impression of somewhat narrow focus. The integrative impact, too, seems limited just to this one visit, with no suggestions of followup or specific ideas about what synergy is expected between the visitor and host. The expense seems as as one might expect.

Reviewer 2:

I was not very convinced by the case for support. I was therefore left with no clear sense of the direction that the research would take or its likely contribution to PASCAL.

I would be doubtful about the value of the work for PASCAL but would not oppose funding if resources are available.