

Ict

# Ricerca partner in ICT dall'Europa

01 dicembre 2017

Oggetto: Ricerca partner in ICT dall'Europa  
ricerca partner dall'Europa nel programma ICT.  
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----- PARTNER SEARCH ICT-PT-SMCP-1 -----  
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<Reference n.: ICT-PT-SMCP-1>

<Deadline: 23/10/2007>

<Programme: >ICT

<Project Title: Intention recognition in human-machine interaction systems>

<Financial Scheme: >Medium small

<Description: Intention recognition is defined as the process of becoming aware of the intention of some agent. It can be technically defined, as the problem of inferring an agent's intention through its actions and their effects in the environment. It lies accordingly in the boundary between perception and cognition. It is generally not required that the agent whose intention is being recognized, has any explicit intent. We describe an intention recognition approach that relies on four-level decomposition of intentional behavior: intention, desired state, action and state.

The first two levels constitute the classical intentional level. The desired state, either represented explicitly or implicitly, is the final result of the cognitive and planning process and is seen as its output. The actions are selected to achieve the desired states. We make the inference using dynamic Bayesian Networks. Here, the intentions are represented by top nodes, and the result of the intentional deliberations is a desired state.

This area can be widely applied in both human-robot interaction and ambient living systems. For example, a human operator can command robotic wheelchair

with extended perceptual and actuating capabilities. The wheelchair senses the environment and tries to move autonomously, but also comply with the human commands. Without recognizing the intentions of the human, the wheelchair can behave in a less-cooperating and a more frustrating way. It is impractical and annoying to ask the human operator for his intentions explicitly, by speech or through other interfaces. It is favorable that the wheelchair itself infers the actions (commands or their effects) of the human, into intentions. There are other applications of intelligent intention recognition in the human-machine interaction: intelligent car interfaces, training machines, disable-people tools, home appliances etc.

<excerpt>

<Organisation Type: Università>

<Partner Sought: Partner (or coordinator) that works in cognitive robotics, and/or Human-machine interaction.

Machine learning and knowledge technology are also welcomed.

Country: ÖSTERREICH, DEUTSCHLAND, DANMARK, ESPAÑA, SUOMI/FINLAND, FRANCE, HELLAS, ITALIA, NEDERLAND, POLSKA, SVERIGE, SLOVENIJA, UNITED KINGDOM>