COGNIRON

The Cognitive Robot Companion

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Information Society Technologies (IST) Priority
Future and Emerging Technologies (FET)- Proactive Initiative 'Beyond Robotics'.

Project Details

Contract number : FP6-IST-002020
Duration**:** 48 months
Start Date: 2004-01-01
End Date: 2007-12-31
Project Cost: 8.03 million euro
European Commission Funding: 6.11 million euro
Other funding sources : Swiss Government (560 000 euros)

Participants

- LAAS-CNRS - Laboratoire d'Analyse et d'Architecture des Systèmes (LAAS), France (Coordinator)
- Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland
- Fraunhofer Gesellschaft zur Förderung der Angewandten Forschung E.V - Fraunhofer Institute for Manufacturing Engineering and Automation (FhG-IPA), Germany
- Kungliga Tekniska Högskolan (KTH), Sweden
- Universiteit van Amsterdam (UVA), The Netherlands
- Universität Bielefeld (UniBi), Germany
- University of Hertfordshire (UH), United Kingdom
- Universität Karlsruhe – TH (UniKarl), Germany

Project Objectives

The overall objectives of this project are to study the perceptual, representational, reasoning and learning capabilities of embodied robots in human centred environments. The project will develop methods and technologies for the construction of such cognitive robots able to evolve and grow their capacities in close interaction with humans in an open-ended fashion.
Expected results are basic methods, algorithms and architectures and their integration and long-term experimentation and scientific evaluation on embodied robotic systems in different settings and situations.
In the focus of this research endeavour is the development of a robot whose ultimate task is to serve humans as a companion in their daily life.

The robot is not only considered as a ready-made device but as an artificial creature, which improves its capabilities in a continuous process of acquiring new knowledge and skills.

Besides the necessary functions for sensing, moving and acting, such a robot will exhibit the cognitive capacities enabling it to focus its attention, to understand the spatial and dynamic structure of its environment and to interact with it, to exhibit a social behaviour and communicate with other agents and with humans at the appropriate level of abstraction according to context.
The design of the cognitive functions of this artificial creature and the study and development of the continuous learning, training and education process in the course of which it will mature to a true companion, are the central research themes of the project.

Contact

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