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The GNOSYS Cognitive Architecture and beyond

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ABSTRACT OF THE TALK

In the last couple of decades various cognitive architectures tried to model the cycle from perception to action. The GNOSYS project produced one such architecture with some distinct characteristics in comparison with the other approaches. Some of its main features are that it is hybrid, it captures semantic knowledge by using conceptual representations and abstraction, achieves a level of sub-symbolic reasoning comparable to the level of lower level animals and it is domain agnostic. In this presentation we will provide a high-level overview of the main components of the GNOSYS architecture and their interactions so as to convey the core ideas. Comparisons with other cognitive architectures of interest will be made. Current and future extensions will also be discussed.

SHORT CV

Stathis Kasderidis is a visiting research scientist at the Institute of Computer Science (ICS) of the Foundation for Research and Technology (FORTH) in Heraklion, Crete, Greece. He holds a B.Sc. in Physics, an M.Sc. in Applied Mathematics and a Ph.D in Neurocomputing. He has been a postdoctoral fellow at the Dept. of Mathematics, King's College, UK, for a number of years, where he worked on attention-based cognitive agents and complex models of neurons. In 2004 he joined the Computational Vision and Robotics Laboratory of ICS-FORTH, where he has been assistant coordinator of the FP6 GNOSYS project. He has worked in a number of areas in the past including Time Series, Cognitive Architectures and Ambient Intelligence. Main interests are in the study of Intelligence, natural and artificial and in Complex Systems.