

Prof. Verena Hafner

Faculty of Mathematics and Natural Sciences

Department of Computer Science

Adaptive Systems



Expertise

Professor Hafner's research in Adaptive Systems is concerned with extracting principles of intelligence from biological systems and transferring them to artificial systems. We focus on the transfer of cognitive skills to autonomous robots. The challenge not only lies in building intelligent autonomous robots, but also in gaining insights into biological systems through robot experiments. Our main research themes are sensorimotor learning, internal models for prediction, attentional processes, and spatial cognition. The methodological approaches cover evolutionary algorithms, neural learning, and information theory. We use various types of mobile robots as research platforms, e.g. humanoid, mobile, flying and underwater robots, as well as software simulations. Professor Hafner is IEEE Senior Member and Principal Investigator in several projects funded by the EU.

<http://humboldt.gmbh/forschungskooperation>

Testimonials

- Local company for automation and robotics: Student semester project for the development of a collaborative fleet management system for autonomous transport robots.

Topics / Trends

Big Data & Data Management
E-Mobility / New Mobility
Vehicle Assistant Systems &
Navigation Systems
Internet of Things
Communication(s) Systems
Logistic Systems & Processes
Human-Technology-Interaction
Peer-to-peer Communication
Robotics & Artificial Intelligence

Industries

Information & Communication
Technology
Aerospace
Machinery & Plant Engineering
Mobility & Logistics

Mentor for Startup

Vescape GmbH

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