SysInt 2014

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2nd International Conference on System-Integrated Intelligence
July 2nd - 4th, 2014 | University of Bremen | Germany

Perceptive Robotics

Embedded Symposium organized by

Prof. Dr. Frank Kirchner (DFKI RIC)
Prof. Dr. Michael Beetz (TZI, University of Bremen)
Dr. Stefan Bosse (WG Robotics, Univ. of Bremen)

Topics of interest include, but are not limited to:

- Technologies for autonomous robots with advanced material- or structure-embedded perceptive capabilities like tactile sensing or sensorial structures.
- Development, application and electro-mechanical design of sensor networks in robot structures like tactile sensor arrays (artificial skin) embedded in robot hands/grippers.
- Robot control architectures, methods & algorithms using low-level perception provided by embedded sensor networks and linking perception with action.
- Adv. distributed/parallel data processing & communication in control architectures incorporating low-level perception, like data pre-processing on sensor node/micro-chip level.
- Biologically-inspired methods & architectures performing data pre-processing, reduction, filtering and computation of high-level information in large-scale sensor networks.
- Integrated data fusion of high-level perception like vision with raw low-level sensor data from embedded sensor networks using machine learning, neural networks, neuro-biological methods or evolutionary algorithms.
- Development of autonomous machines navigating independently without external reference.
- Machine/reinforcement learning methods for application in robot control enhancing autonomy.

Key Dates & Information:

Abstract submission: Dec. 6th, 2013

Acceptance notific.: Dec. 20th, 2013
Full paper submission: Feb. 1st, 2014

Conference website
www.sysint-conference.org

… part of the SysInt 2014 Conference jointly organized by

- ISIS Sensorial Materials Scientific Centre, Bremen — www.isis.uni-bremen.de
- LogDynamics, Bremen — www.logdynamics.de
- Collaborative Research Centre (CRC) 653, Hanover — www.sfb653.uni-hannover.de
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Collaborative Research Center 653 "Gentelligent Components in Their Lifecycle"

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