

2009/2010 Seminar Series

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**"Autonomous Systems: What you
always wanted to ask about
robots and never dared to ask!"**
by
Dr. Paul Ploger

Paul G. Plöger studied Mathematics and
Physics at the University of
Dortmund, UC Berkeley and received his
Dr. rer. nat. from the University of
Brandenburg
in Computer Science with a thesis on
timing estimation and optimization in
embedded system design.

The Bonn-Rhein-Sieg university is a partner university of UNB, offers a
Masters course in Autonomous systems and has a record of about 10 years in
doing robotics. Quite recently we shifted our main research focus from multi agent
systems as exemplified by a team of soccer playing robots -known from the
ROBOCUP middle size league (MSL)- to ***Service Robotics***. The rising
interest in this research area also reflects in a recently
established new league called ROBOCUP @home.

I this talk I will give a bit of a look back and focus on newer
and most urgent engineering and computational problems encountered in this
very rich and diversified field.

I will motivate the need and indicate some of our solutions for the provision
of basic skills for the service robot like locomotion, localization and map
building, but also higher abilities like perception, grasping or human robot
interaction. Some of the most urgent scientific problems behind this will be
explained and how we tackled them by so diverse solution approaches as analogue
VLSI design, machine learning or service oriented architectures.

Monday, October 26th @ 3:30pm
Information Technology Center, ITC317