robotics Swiss National Centre of Competence in Research

COMMUNITY NEWSLETTER

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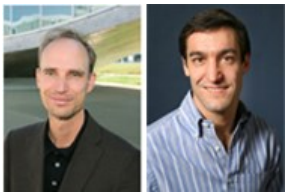
Public Version

NCCR NEWS

Welcome to two new professors



We warmly welcome two new Professors: Olaf Blanke (LNCO, EPFL) and David Atienza (ESL, EPFL). They will be working on a new research project. NCCR Robotics is currently made up of 19 different research groups across Switzerland.

4th approved Robotics Spin Fund

The fourth approved NCCR Robotics Spin Fund has officially been granted to S. Raspopovic and F. Petrini for RESTORE: Re-enabling Sensory Technology for Functional Restoration in Amputees. The project is hosted by TNE.

Kinect v2 for robotic mapping

ASL uses the new Kinect v2 sensor on their mobile robot StarlETH and have evaluated its application to mobile robot navigation. They also provide a simple to install, package-based driver and ROS interface for Ubuntu.

noonee - The Chairolution has officially begun

NCCR Robotics Spin Fund noonee has completed its first field trial of the Chairless Chair at a large car manufacturer. Read more

Careers in Robotics

We have launched a series of videos, as well as a new section in the education part of the Website called Routes into Robotics, both which aim to inform, promote and encourage students to follow a career in robotics.

Start-up Info Corner

We have launched a Start-up Info Corner on the NCCR Robotics website where regular posts on events and useful information linked to entrepreneurship will appear. Visit us regularly and stay tuned.

NCCR OPEN POSITIONS

PHD Studentships

Applications are now open for two PhD studentships in Planning in multi-agent and multi-robot systems and multi-modal interaction between humans and multi-robot systems Please see the IDSIA website for details and information on how to apply.

WE WILL BE AT:

ROBOTICS WORLD

Top News

- Using drone technology to help regenerate an ancient ecosystem
- Jibo's coordinated expression mechanisms: Behind the scenes
- Revolutionising building and construction sites
- Surgical micro-robot swarms: Science fiction, or realistic prospect?
- Artificial neural networks and intelligent information processing, with Kurosh Madani

World events

- Automation (March 18-20)
- Skolkovo Robotics (March 20-22)
- Automate (March 23-26)
- Ferrara Drone Show (March 28-29)
- Soirée Technique - La cobotique: une révolution dans nos usines? (March 31)
- RoboGames (April 3-5)
- National Robotics week events (April 4-12)
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- CRUSER TechCon (April 8-9)
- NIMROD (April 9)
- WE ROBOT (April 10-11)
- Soft Robotics week (April 13-17)

External calls

- ICRA - Ph.D. Forum
- CTI US Market CAMP
- Robobusiness - call for Speakers
- Creative Technoloiges Handbook - call for chapters
- Eurathlon - call for papers and participation
- ICCRC - call for papers
- ICRAS - call for papers
- ECMR - call for papers
- Hamlyn Symposium - call for papers
- RoboCup call for papers

External positions

Innorobo

1-3 July

Lyon

Read more

START UPS INSIDE SWISS ROBOTICS

Swiss Robotics

Swiss Robotics is an expanding and successful NCCR Robotics initiative that provides Swiss Start Ups with a unique opportunity to co-exhibit with NCCR Robotics at selected conferences and trade fairs. Discover some of these Start Ups:

Skybotix

Skybotix designs camera-based navigation systems for micro-helicopters that enable safe, easy and smart interaction with such systems. This allows intuitive and scalable aerial imaging for industrial applications. Read more

NCCR PRESS COVERAGE

Pleurobot: Multimodal locomotion in a bioinspired robot

The Pleurobot is a bioinspired robot being developed by the BioRob (EPFL). Taking it's cues from the salamander, Read more

Ground-Flight collaboration

Working in the field of rescue robotics, RPG (UZH) works on how to get air robots communicating with ground robots, with the aim of exploiting the strengths of each by working in a team. Read more

More press coverage available through the NCCR Robotics website

NEW VIDEOS

Jun Shintake - Sensory-Motor Tissues for Soft Robots

Careers in Robotics - Sahar El Khoury

Elias Müggler - Ground-Air Collaboration

Careers in Robotics - introduction

Pleurobot - multimodal Locomotion in a....

GUESS WHO?

Robotics Software Engineer (North America)

Robotics Research Software Engineer (Europe)

Cool links

by Joël Rey (LASA)

Artificial life forms on the Dutch beaches
Robots race to the Moon
How do you localize yourself
Flying robots music band

Useful links

Kickstarter.com

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Can you guess who this NCCR professor is?

For this professor watching TV and reading comics was not necessarily bad. As a teenager he was crazy about TV shows such as *The Six Million Dollar Man*, movies such as *Star Wars* or those based on *Marvel* comics. Read more **and find out**.

NEW MEMBERS

Fabio Dell'Agnola (ESL)

Fabio is a PhD student at ESL, EPFL and is performing research on wearable embedded systems. His research focuses on wearable wireless systems for emotion analysis and virtual reality for biofeedback and rehabilitation.

Volker Bartenbach (SMS)

Volker is a PhD student at SMS, ETHZ and is studying physical human-exoskeleton interaction. His research focuses on the design and control of robotic exoskeleton and the effects that robotic exoskeletons have on the human user.

SELECTED NCCR PUBLICATIONS *

M. Faessler, F. Fontana, C. Forster and D. Scaramuzza, "Automatic Re-Initialization and Failure Recovery for Aggressive Flight with a Monocular Vision-Based Quadrotor," In *IEEE Intl. Conf. on Robotics and Automation (ICRA*), Seattle, WA, May 2015.

P. Fankhauser, M. Bloesch, D. Rodriguez, R. Kaestner, M. Hutter and R. Siegwart, "Kinect v2 for Mobile Robot Navigation: Evaluation and Modeling," in *IEEE International Conference on Advanced Robotics (ICAR)*, 2015. (submitted).

C. Forster, M. Faessler, F. Fontana, M. Werlberger and D. Scaramuzza, "Continuous On-Board Monocular-Vision-based Elevation Mapping Applied to Autonomous Landing of Micro Aerial Vehicles," In *IEEE Intl. Conf. on Robotics and Automation (ICRA)*, Seattle, WA, May 2015.

E. Y. Lew, R. Chavarriaga and J. d. R. Millán, "Single trial prediction of self-paced reaching directions from EEG signals," in *Frontiers in Neuroscience*, vol. 8, pp. 222, 2014.

E. Mueggler, C. Forster, N. Baumli, G. Gallego and D. Scaramuzza, "Lifetime Estimation of Events from Dynamic Vision Sensors," In *IEEE Intl. Conf. on Robotics and Automation (ICRA)*, Seattle, WA, May 2015.

A. Winkler, C. Mastalli, I. Havoutis, M. Focchi, D. Caldwell and C. Semini, "Planning and Execution of Dynamic Whole-Body Locomotion for a Hydraulic Quadruped on Challenging Terrain," In *IEEE International Conference on Robotics and Automation*, 2015.

*Selected publications include publications which have been made known to the editor. All members are kindly encouraged to inform the management team of new pulbications.

NCCR Robotics

The Swiss National Center of Competence in Robotics (NCCR Robotics) is a federally funded programme bringing together robotics laboratories from EPFL, ETH Zurich, University of Zurich and University of Lugano to work on wearable, rescue and educational robots.

Photos: Noonee - courtesy of Audi AG; Ground-Air collaboration between robots - RPG and Alain Herzog.