robotics Swiss National Centre of Competence in Research

COMMUNITY NEWSLETTER

Issue 20
June 2015
Public Version

Dear Readers,

We would like to wish you a pleasant summer break and we inform you that the NCCR Robotics Newsletter will be back mid October.

NCCR NEWS

Cybathlon Update

The Cybathlon rehearsal will be taking place 13-15 July 2015 at the Swiss Arena, Zurich. Technology providers and participants will come together on this day to put to test the logistics and the venue. You can also now start meeting some of the tech providers.

LinkedIn

We would like to invite our readers to keep up with regular NCCR Robotics updates and interesting news through our LinkedIn company page.

Robot Competition

The final round of the EPFL STI robot competition took place on June 09th. The competition involved 5 teams. The goal of the competition was to build and control a robot that autonomously collects PET bottles in a challenging, semi-structured environment.

Thymio

Thymio is currently crowdfunding. The team hope to develop a new feature to enable it to be programmed wirelessly which will be compatible with the current version of Thymio!

NCCR CALLS

Call for Paricipation - Rescue Robotics Workshop (02 July)

The Rescue GC workshop aims to promote interaction with project stakeholders. The Police, Fire Department and dept of Civil Protection have been invited for a demonstration of NCCR technologies. Register before 27 June (limited availability).

CONGRATULATIONS

sensars neuroprosthetics

NCCR Robotics Spin Fund sensars neuroprosthetics won the Brain Forum 2015 Startup competition award . Read more

ROBOTICS WORLD

Top News

- #ICRA15 videos of plenaries and keynotes
- Robots Podcast: CyPhy LVL 1 Drone, with Helen Greiner
- What's hot in robotics? Four trends to watch
- DARPA Robotics Challenge leaves brilliant PR legacy
- Soft robotics for adaptive building facades

World events

- The Hamlyn Symposium on medical Robotics (20-23 June)
- AMAM (21-25 June)
- Innovation in autonomous systems (22 June)
- IEEE WHC (22-25 June)
- Solid, Hardware, Software and Internet of Things (22-25 June)
- Robot Ethics: Personal Perspectives (24 June)
- RoboUniverse Seoul (24-26 June)
- FSR (24-26 June)
- Bioinspired Robotics: Softer, Smarter, Safer (29 June)
- Innorobo (1 July)
- ARSO (1-3 July)
- ICVS (6-9 July)
- IEEE CIS and RAM (15-17 July)
- ICAR (27-31 July)
- Cabourg Drones Festival (5-6 Sept)
- IEEE MFI (14-16 Sept)
- Robo Business (23-24 Sept)
- RTEX (29 Sept-01 Oct)

External calls

- Wearable Robotics
- Bring your Robotics & AI projects to life with ABB Robotics
- Venture Kick
- ICMAA

Thesis Defense

Ludovic Daler (LIS) presented his PhD thesis, entitled "*Adaptive Morphology for Multi-Modal Locomotion*" at EPFL on Tuesday 09th June 2015.

Noonee

Following the recent HKSTP visit to NCCR Robotics, Noonee has been selected to join the Soft-landing Programme and APAC Innovation Summit 2015 on Robotics.

WE WILL BE AT:

Soft-landing programme

22-27 June

Hong Kong

Read more

NCCR Workshop on Rescue Robotics Technologies

2 July

ETH

Read more

Innorobo

1-3 July

Lyon

Read more

Drone Apps Day

14-15 Sept

Lausanne

Read more

INSIDE SWISS ROBOTICS

senseFly

senseFly develops and produces aerial imaging drones for professional applications. Currently based in Cheseaux-Lausanne, the company was was founded in 2009 by a team of EPFL robotics researchers and has quickly become ... Read more

NCCR PRESS COVERAGE

Bionic athletes compete in disciplines drawn from everyday life

Interview with Robert Riener on next year's Cybathlon Read more

More press coverage available through NCCR Robotics website

NEW VIDEOS

A folding drone that's ready for takeoff in a snap

Careers in Robotics - Ricardo Chavarriaga

CARE

ENHANCE

ISCR

Augmented Human 2016

External positions

Research Assistant in Wearable Soft Robotics at Bristol Robotics Laboratory

Flyability Internships

Two Ph.D. positions at ASU on Bio-inspired Robotics

Software Test Engineer (SeeByte Ltd)

Embedded Software Engineer (Bossa Nova Robotics)

Interesting links

ETH Entrepreneur Club

NCCR Robotics Director

Prof. Dario Floreano

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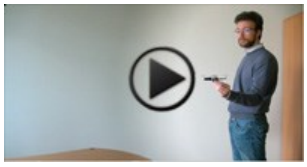


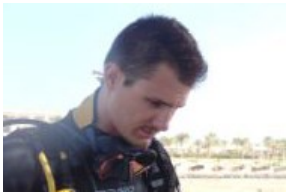
GUESS WHO?

Can you guess who this NCCR professor is?

This is a picture of his second birthday. At the age of 9, this NCCR Robotics professor already knew he wanted to become a researcher. Read more

NEW MEMBERS

Schrade Stefan (ReLab)



Stefan is a PhD student. In the scope of his master thesis in mechanical engineering he contributed to the estimation of the knee joint's mechanical impedance during gait. His current research focuses on knee prostheses with variable mechanical impedance.

Tobias Bützer (ReLab)

Tobias is a PhD student. During his masters in mechanical engineering he specialized in biomechanics and mechatronics. His current research focuses on hand and upper limb rehabilitation after stroke and the development of a hand exoskeleton.

Fabien Wagener (IRP)

Fabien Wagner is a Postdoc researcher working on closed-loop spinal cord stimulation for rehabilitation after spinal cord injury. His research focuses on translating phasic stimulation therapies developed in rodents towards clinical applications, and developing new brain-spinal interfaces in non-human primates.

Tomislav Milekovic (IRP)

Tomislav is a Postdoc studying neural control of motion and uses that knowledge to design novel neuroprosthetic therapies for people with paralysis. His research focuses on neural interfaces aimed at reconnecting the brain with the spinal cord when the natural connection has been compromised due to an injury or a neurological disorder.

SELECTED NCCR PUBLICATIONS *

D. Floreano and R. J. Wood, "Science, technology and the future of small autonomous drones," *Nature*, vol. 521, pp. 460-466, 2015.

A. L. Majdik, D. Verda, Y. Albers-Schoenberg and D. Scaramuzza, "Air-ground Matching: Appearance-based GPS-denied Urban Localization of Micro Aerial Vehicles," *Journal of Field Robotics*, 2015.

D. Pardo, L. Möller, M. Neunert, A. W. Winkler and J. Buchli, "Evaluating direct transcription and nonlinear optimization methods for robot motion planning," *arXiv*, 1504.05803, 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.