Issue 29 October 2016 **Public Version**

OMMUNITY NEWSLETTER









Swiss Robotics Industry Day

The second Swiss Robotics Industry Day, organised by NCCR Robotics on 2nd November 2016 at the Swiss Tech Convention Center, Lausanne, will showcase cutting edge robotics research from the 20 professorships in NCCR Robotics, SMEs and the Swiss Robotics ecosystem. The Day is a vital opportunity for industry in fields that use robotics to network with potential partners, talents and collaborators as well as offering privileged access to new and emerging technologies.





CONGRATULATIONS

6th NCCR Robotics Spin Fund

Spin Fund for the ANYbotics robust, controllable robot Congratulations to Fabian Günther who has won a joint. He will be hosted by Hutter lab (ETH Zurich).





CYBATHLON

A unique competition takes off

ETH Zurich issued a press release with photos and videos taken on the day of the event. We would like to thank everyone who turned up to our event or watched online, it was a resounding success. Read more.



Congratulations to NCCR Robotics team the Brain Tweakers who took gold in the BCI race! Watch their competition again and read the detailed article on their race. Special congratulations also to Varileg who came fifth in the powered exoskeleton race.



Symbiotic Drone @ Cybathlon

During the Cybathlon, a team from the Symbiotic Drone Project took their prototype to test with members of the general public. We caught up with some participants to see what they thought:



"Huge fun to try and suprisingly easy after a little practice. The team explained everything really well, and the jacket was more comfortable than I expected. Flying through the buildings takes a lot of concentration. Can I have another go please?"

"Wow! Flying over EPFL as free as a bird! The symbiotic drone was great fun and really engaging."

"As a spectator I found it quite exciting watching and hoping my son in law would crash! (but not too often) - there were a lot of people watching along on the screen, it seemed to be a good spectator sport, but lots of people wished the had also booked a slot"

Media Coverage of Cybathlon

The Cybathlon was livestreamed across Swiss TV on



In this issue...

Swiss Robotics Industry Day 6th NCCR Robotics Spin Fund Cybathlon

We will be at...

ROBOTICS WORLD

Top News

25 women in robotics you need to know about - 2016

The new Westworld: Humanizing the un-human, or dehumanizing humankind?

It's not only engineers who work in robotics

White House releases reports focusing on opportunities and challenges of Al

Meet RoboGabby: She's on a mission to teach more girls about robotics

World events

Petrobot (25 Oct)

Forum de l'innovation Suisse -France dans l'économie des seniors (29 Oct)

Robotics Expo (04-06 Nov)

DARS (7-9 Nov)

Humanoids (15-17 Nov)

Salon service à la personne (15-17 Nov)

London Space Week (15-16 Nov)

GCC Manufacturing Excellence & Technology Summit (14-15 Nov)

Robotics Expo (20-22 Nov)

ICCR (22-23 Nov)

AREX (23-24 Nov)

External calls

Robotic Online Short Film Festival

HRI 2017 late breaking reports, demonstrations and videos

Paper submisssion RSJ

Create your own Summer/Winter School 2017 (ETH Zurich)

External positions

Four Tenure-Track Positions in Synthetic and Systems Biology, Robot Locomotion, Tissue **Engineering and Multidisciplinary** Approach to Biosystems Investigation.(iit)

with some focus clips on NCCR Robotics labs on their website. You can also find more media coverage on the Cybathlon website.



BBC Click



France24



NZZ



ITV



Le Temps



Engadget

Superhumans



IMPRESSUM

Robotics Engineer (PAL)

Full Time Tenure Stream -

Assistant Professor (York

Tenure Track Position in Robot

Faculty Position in Mechanical

NCCR Robotics Director

Office MED 11626, Station 9 EPFL CH-1015 Lausanne

University)

Locomotion (iit)

Systems (EPFL)

Prof. Dario Floreano

CONTACT
NCCR Robotics

Switzerland +41 21 693 69 39 nccr-robotics@epfl.ch

Publisher
NCCR Robotics Management
Team
Editor
Mayra Lirot / Linda Seward

Mayra Lirot / Linda Seward
Contributing Editor
Anne-Christine Butty
Web Editing
Mayra Lirot / Linda Seward

DesignAlternative Communication SA /
Pascal Briod

WE WILL BE AT:

SSRR - 2016

23 - 27 October 2016

EPFL, Lausanne

Read more

Swiss Robotics Industry Day

02 November 2016

STCC, Lausanne

Read more







SELECTED NCCR ROBOTICS PUBLICATIONS *

- C. Brandli, J. Strubel, S. Keller, D. Scaramuzza and T. Delbruck "ELiSeD An Event-Based Line Segment Detector", *In International Conference on Event-Based Control, Communication and Signal Processing (EBCCSP), Krakow*, 2016.
- J. Delmerico, A. Giusti, E. Mueggler, L. M. Gambardella and D. Scaramuzza, "On-the-spot Training" for Terrain Classification in Autonomous Air-Ground Collaborative Teams", In *International Symposium on Experimental Robotics (ISER)*, Tokyo, Japan, 2016.
- L. Dufour, K. Owen, S. Mintchev and D. Floreano, "A Drone with Insect-Inspired Folding Wings," In 2016 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS, Daejeon, Korea, 2016.
- B. Kueng, E. Mueggler, G. Gallego and D. Scaramuzza "Low-Latency Visual Odometry using Event-based Feature Tracks," In IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), *Daejeon*, 2016.
- K. Lee, D. Liu, L. Perroud, R. Chavarriaga and J. d. R. Millán, "A Brain-Controlled Exoskeleton with Cascaded Event-Related Desynchronization Classifiers," *Robotics and Autonomous Systems*, 2016 (accepted).
- S. Mintchev and D. Floreano, "Adaptive Morphology: A Design Principle for Multimodal and Multifunctional Robots," *IEEE Robotics & Automation Magazine*, vol. 23, num. 3, p. 42-54, 2016.
- H. Rebecq, G. Gallego and D. Scaramuzza, "EMVS: Event-based Multi-View Stereo," In *British Machine Vision Conference (BMVC), York, UK*, 2016.
- M. A. Robertson, H. Sadeghi, J. M. Florez and J. Paik. "Soft Pneumatic Actuator Fascicles for High Force and Reliability," *Soft Robotics*, 2016 (accepted).
- D. Tedaldi, G. Gallego, E. Mueggler and D. Scaramuzza "Feature Detection and Tracking with the Dynamic and Active-pixel Vision Sensor (DAVIS)" *In International Conference on Event-Based Control, Communication and Signal Processing (EBCCSP), Krakow*, 2016.

*Colosted publications include publications which have been made known to the editor. All members are kindle

"Selected publications include publications which have been made known to the <u>equor</u>. All members are kindly encouraged to inform the management team of new publications.

NCCR Robotics

The Swiss National Centre 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.









© 2016 NCCR Robotics all rights reserved for NCCR Robotics texts.