Issue 28 June 2016 Public Version

OMMUNITY NEWSLETTER







Swiss Robotics Industry Day

After its successful launch last year, NCCR Robotics is organising the 2nd Swiss Robotics Industry Day on 02 November 2016 at the Swiss Tech Convention Centre. For information on this year's event and to register please visit our new website.

SWISS ROBOTICS ** **INDUSTRY DAY 2016**

Open-source Software Release: Information Gain Based Active **Reconstruction Framework**

Scaramuzza Lab has released a new open-source library for performing 3D active object reconstruction. Read more



Cybathlon Update

Registration for the cybathlon symposium (6th Oct) is now open. Cybathlon is also offering high schools (German speaking) and their teachers an opportunity to participate to a series of interactive programmes.



Thymio to be used in French schools

Thymio, the teaching robot widely used in Frenchspeaking Switzerland, is now making inroads elsewhere in Europe. In France, it has been incorporated in an important... Read more



Education: Robotics Glossary

We've compiled a list of commonly used robotics terms in the NCCR Robotics website with layman's explanations. If you don't see what you're looking for, email us and we'll do our best to add an explanation.



CONGRATULATIONS

Stéphanie Lacour named Associate **Professor**

Stéphanie Lacour was named as Associate Professor of Microtechnology and Bioengineering in the EPFL School of Engineering (STI). Read more



Qualcomm Innovation Fellowship

Elias Mueggler (Scaramuzza Lab) won the Qualcomm Innovation Fellowship to support his research in event-based vision for high-speed robotics.



Intento SA wins CTI Swiss Medtech Award

In early June, NCCR Robotics spin fund Intento was presented with the CTI Swiss Medtech Award. Read more



Flyability launch Elios



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ROBOTICS WORLD

Top News

Motivational posters with a clever robotics twist

MIT's AI passes Turing test for sound

Xiaomi challenges DJI with a lowcost drone

Chinese investors keep buying international robotics companies

Infographic: The making of a collaborative robot

World events

RSS 18-22 June

ELROB 20-24 June

AUTOMATICA 21-24 June

UK Robotics week 25 June - 01 July

UAV Challenge Medical Express 02 Sept

InterDrone 7-9 Sept

ESSCIRC - ESSDERC 12-15 Sept

Drone Experience 16-17 Sept Drone Berlin 14-15 Oct

External calls

Academia-Industry Training Camps

Discover NCCR Robotics spin fund Flyability's new product Elios. Elios allows a safe inspection and exploration of inaccessible places. Video - Press release.





PhD/Postdoc Exchange Programme & Master's Internships for Women

PhD / Postdoc exchange programme - take part in a 3-6 month project inside NCCR Robotics. Master's internship for women - 3-6 month internship at an NCCR Robotics lab. Deadline for both calls: 31st



Spin Fund: call open on monthly

Unlike previous years, from this year onwards the spin fund application process will occur on a rolling basis. Apply for one year's salary to kick-start your business. The spin fund targets PhD, Master's students and senior researchers... Read more



SSRR 2016: Call for Papers and **Robot Demonstrations**

The International Symposium on Safety, Security and Rescue Robotics (SSRR 2016) will be held at EPFL, 23-27th Oct. Deadline 24th June.





NCCR OPEN POSITIONS

Position in bioelectronics & wearable rehabilitation

The Karlen lab has an opening for a Postdoc position in bioelectronics and rehabilitation. Read more





WE WILL BE AT:

AUTOMATICA

21 - 24 June 2016

Germany

Read more

International Robotics Showcase

01 July 2016

London

Read more

DLMC 2016

13 - 15 July 2016

Germany

Read more

Workshop on Robots for Learning

27 August 2016

New York

Read more









Advanced Postdoc. Mobility

Cyber-Human Systems

DARS

DRONE BERLIN

FTC 2016

Grants4Tech - Robot Competition (Bayer)

Humanoids 2016

John Maddox Prize

Robotic Challenge 4.0

Soft Robotics Competition

External positions

Post-Doc Position Robust & Optimal Control for In situ Digital Fabrication (ADRL -ETH Zurich)

Business Development Manager (Flyability, Lausanne)

PostDoc Position in implantable electronics for closed-loop gait tracking (MHSL-ETH Zurich)

Computer vision programmer / researcher (Capsen Robotics)

Drone Control Engineer (Insightness)

PhD position in Humanoid Manipulation (Jaume I University,

Junior Research Group: ,Multilevel Modeling in Motor Control and Rehabilitation Robotics

(University of Tübingen, and University of Stuttgart)

Interesting link

Benchmarking Bipedal locomotion

NCCR Robotics Director

Prof. Dario Floreano

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IIII NCCR PRESS COVERAGE

NCCR Robotics spin funds featured in SPARC



Flyability and Fotokite featured in SPARC (the partnership for Robotics in Europe) Read more

More press coverage available through NCCR Robotics website



NEW VIDEOS

Flyability launch ELIOS





GUESS WHO?

Can you guess who this NCCR professor is?

At the age of 18 this professor travelled to India with an association and had the opportunity of meeting Mother Theresa and the Dalai Lama. After high School he hesitated between studying physics, medicine, biology and architecture... Read more





A NCCR INTERNSHIPS



Meet the NCCR Robotics Internship **Students**

Read about the experiences at NCCR Robotics of some of our NCCR Robotics Master and PhD / Postdoc internship grantees.



Julia Nitsch

Julia is from Austria and attended Graz, University of Technology. She completed her internship on the project Terrain Mapping at Scaramuzza Lab last April. Julia was able to fulfil her planned objectives during the internship. Read more





NCCR ROBOTICS LAB'S PEOPLE

CHILI

The Dillenbourg lab, CHILI, performs research on novel interfaces for learning, with a focus on learning in teams. In recent and current projects, they develop, explore and research novel interfaces for learning, such as tangibles, tabletop environments and paper-based interfaces.



Alexis Jacq (CHILI - EPFL)

Alexis is studying cognitive architectures for Human-Robot Interactions. His research focuses on mutual modelling in robotics: How robots can model other agents within social activities in order to solve misunderstanding situations.



Wafa Johal (CHILI - EPFL)

Wafa is a postdoctoral scientist at EPFL working on the NCCR Robotics Cellulo project. She has a PhD in Computer Sciences specialising in human-robot interaction, narticularly on non-verbal cues for



communication and cognitive reasoning.

Ayberk Özgür (CHILI - EPFL)

Ayberk is a PhD student at EPFL working in the Cellulo project concerned with novel tangible swarm robots and their integration into the classroom as the "pencils of tomorrow".





SELECTED NCCR PUBLICATIONS *

- K. Baur, V. Klamroth-Marganska, C. Giorgetti, D. Fichmann and R. Riener, "Performance-based viscous force field adaptation in upper limb strength training for stroke patients," *In Biomedical Robotics and Biomechatronics 2016, 6th IEEE RAS & EMBS International Conference on,* 2016.
- L. Marchal-Crespo, T. Baumann, D. Fichmann, S. Maassen, J. E. Duarte and R. Riener, "Evaluation of a Mixed Controller that Amplifies Spatial Errors while Reducing Timing Errors" In 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Orlando, 2016.
- R. Sabzevari and D. Scaramuzza, "Multi-body Motion Estimation from Monocular Vehicle-Mounted Cameras" In *IEEE Transactions on Robotics*, 2016.
- *Selected publications include publications which have been made known to the editor. 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.









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