## Issue 26 April 2016 Public Version

# **OMMUNITY NEWSLETTER**



## NCCR NEWS W II in D





## **ljspeert lab filming for BBC**

The lispeert lab have developed two newer versions of field ready camera equiped sprawling posture robots. The purpose of these crocodile-like and monitor lizard-like robots is to approach and film a nest of real crocodiles in the banks... Read more



## Transition of Co-Leadership in **Rescue Robotics Grand Challenge**

Due to new responsibilities in NCCR dfab Jonas Buchli is stepping down as co-leader of the RR-GC and continuing as a PI. He is replaced by Davide Scaramuzza. We take this opportunity to thank Jonas for his very valuable input and contributions.



## **New NCCR Robotics EPFL facilities**

The new new Mechanical Engineering (ME) building at EPFL regroups various NCCR Robotics labs including the Mangement team. The new open spaces in the builiding promote exchange between NCCR Robotics members. Read more



## CONGRATULATIONS

## Marco Hutter receives euRobotics 2nd TechTransfer Award

The euRobotics 2nd TechTransfer Award: "From legged robots to walking excavators - active balancing of an all-terrain chassis" was granted to Marco Hutter, ETH Zurich, Read more



#### Christian Forster PhD defense

Christian (Scaramuzza lab) successfully presented his PhD defence, "Visual Inerial Odometry and Active Dense Reconstruction for Mobile Robots" and graduated with Summa Cum Laude. He is now working for the Eye project at Wyss Zurich.





## **CALLS**

## Spin Fund: call open on monthly basis

Get one year's salary to develop your technology and business model into a real start-up. The Robotics Spin Fund targets PhD students. Master's students and senior researchers... Read more



## Cybathlon Symposium Call for abstracts

Call for abstracts for the Cybathlon Scientific Symposium (Zurich, 6th October, 2 days before the main Cybathlon event). Submission deadline: April 30th 2016. Read more



### In this issue...

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Transition of Co-Leadership in Rescue Robotics Grand Challenge

New NCCR Robotics EPFL facilities

Marco Hutter receives euRobotics 2nd TechTransfer Award

Christian Forster PhD defense

Calls: Spin Fund Application / Cybathlon Symposium / DLMC Workshop

We will be at: Cambridge Science Festival / Rescue Robotics Grand Challenge Field Tests / Hannover Messe / AUTOMATICA

Guess Who

Meet The People from Hutter lab (RSL, ETH Zurich)

#### **ROBOTICS WORLD**

### **Top News**

Robots that may help you in your silver age

NAO Next Gen now available for a wider audience

AI, deep learning and 3D printing produce "The Next Rembrandt"

How do self-driving cars work?

Where should robots go when they retire?

## World events

Cambridge Science Festival 15-24 April

Data-Efficient Learning in Autonomous Robots 22 April

Hannover Messe 25-29 April

Soft Robotics Week 25-30 April

**ICARSC 4-6 May** 

Journée technique "Soudage Robotisé" 10 May

Innorobo 24-26 May

RAID 31 May

Summer School on Field Robotics

20-24 June

Automatica 21-24 June

#### External calls

DRONE BERLIN FTC 2016



## Workshop on Dynamic Locomotion and Manipulation: Call for abstracts

Extended abstracts are now being accepted for DLMC-2016 Deadline: 7th May 2016. Read more



Workshop on Dynamic Locomotion and Manipulation With Complex Robotic Systems in the Real World (DLMC-2016)



**WE WILL BE AT:** 

## Cambridge Science **Festival**

15 - 24 April 2016

Cambridge, MA and New England

Read more

## **Rescue Robotics Grand Challenge Field Tests**

27 April 2016

Geneva-Epeisses

Read more

#### **Hannover Messe**

25-29 April 2016

Germany

Read more

#### **AUTOMATICA**

21 - 24 June 2016

Germany

Read more











## Interesting link

(Loughborough University)

Interaction: Shared Autonomy and Collaborative Robotics (RSS 2016

Kickstart your business idea in

Planning for Human-Robot Robotics and Automation for

**Humanitarian Applications** 

Robot Makers: The future of digital

Summer School on Field Robotics

rapid design and fabrication of robots (RoMa 2016)

**Soft Robotics Competition** 

Swisscom StartUp Challenge

**External positions** 

processing (MHSL-ETH Zurich)

PostDoc Position in implantable

electronics for closed-loop gait

tracking (MHSL-ETH Zurich)

Computer vision programmer / researcher (capsen Robotics)

Professor of Computer Science

PhD Position in Biomedical computer vision and signal

Workshop on Dynamic Locomotion and Manipulation

(DLMC)

Workshop)

Switzerland

(RAHA) 2016

MFI



The World Intellectual Property Organization have recently published a report on:

Breakthrough technologies -Robotics, innovation and intellectual property

## **NCCR Robotics Director**

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## **IMPRESSUM**

#### Publisher

NCCR Robotics Management Team

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**Contributing Editor** 

Linda Seward / Anne-Christine



## NCCR PRESS COVERAGE

## Special Robots supplement

The national newspaper Le Matin Dimanche of 17th April published a special 13 page supplement on Robots which the NCCR Robotics collaborated in. Read more



More press coverage available through NCCR Robotics website



#### NEW VIDEOS

#### Why is ETH Zürich organising the Cybathlon?



## From exoskeletons and power wheelchairs





## GUESS WHO?

Can you guess who this NCCR professor is?

Throughout his life this professor has enjoyed manual work and building things. He used to spend his holidays during school and study time working as a construction worker, carpenter or assembly worker. Read more





# Robotic Systems Lab - RSL, ETH Zurich)

The Hutter lab (Robotic Systems Lab), headed by Marco Hutter at ETH Zurich, designs machines, creates actuation principles and builds up control technologies for autonomous operation in challenging environments.



Web Editing
Mayra Lirot / Linda Seward
Design
Alternative Communication SA /
Pascal Briod

Butty



Dario is a PhD student at ETH Zurich and studies control algorithms for multibody systems. His research focuses on planning and control of a quadrupedal robot in challenging environments.



## Jemin Hwangbo

Jemin is a PhD student at ETH Zurich studying design and control of legged robotic systems. His research focuses on energy efficiency of dynamic gaits, high speed galloping and gait generation using reinforcement learning.





## **SELECTED NCCR PUBLICATIONS \***

J. M. Florez, M. Shah, E. M. Moraud, S. Wurth, L. Baud, J. Von Zitzewitz, R. van den Brand, S. Micera, G. Courtine and J. Paik, "Rehabilitative Soft Exoskeleton for Rodents", *Transactions on Neural Systems and Rehabilitation Engineering*, No. 99, September 2015 10.1109/TNSRE.2016.2535352

\*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 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.









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