robotics Swiss National Centre of Competence in Research

COMMUNITY NEWSLETTER

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Public Version

In this issue...

NCCR NEWS

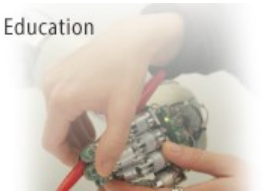
(ROS) Introduction Course

This course from Hutter lab, gives an introduction to the Robot Operating System (ROS) including many of the available tools that are commonly used in robotics. Read more

Magic Leap buys Dacuda's 3D Division

The Dacuda 3D division, with whom Scramuzza lab had 4 KTI projects in virtual reality, has been bought by the unicorn of virtual reality: Magic Leap. Read more

Approved Education Committee



The NCCR Robotics Steering Committee has officially validated the new members of the Education and Society Committee led by Francesco Mondada.

CONGRATULATIONS

Best Paper Award at HRI

Congratulations to Dillenbourg and Mondada Labs for the Best Paper Award at HRi 2017 conference for their work on the Cellulo Educational Robot. Read more

Margarita Chli amongst 25 women in robotics you need to know about

Read more

SensArs wins Venturekick support!

SENSARS
NEUROPROSTHETICS

Congratulations to NCCR Robotics Spin Fund SensArs Neuroprosthetics for winning the Venturekcik final. Read more

NCCR ROBOTICS CALLS

ICRA Workshop on Event-based Vision

Call for Papers, Extended abstracts and Live Demos! **Submission deadline 31st March 2017.** Read more

FSR 2017 -11th Conference on Field and Service Robotics

FSR is a single track conference with a specific focus on field and service applications of robotic technologies. **Submission deadline 01 st April 2017.** Read more

ROBOTICS WORLD

Top News

Mind control: Correcting robot mistakes using EEG brain signals
Should an artificial intelligence be allowed to get a patent?
Reactions from experts: Robotics and tech to receive funding boost from UK government
Cargo drones deliver in the Amazon rainforest
3D-printed houses and cars on the horizon as manufacturing goes large

World events

European Robotics Forum (22-24 March)
DATE (27-31 March)
Swiss Startup Summit (29 March)
Deep Learning in healthcare summit (28-01 March)
Automate (3-6 April)
Innorobo (16-18 May)
ICRA (29 May-03 June)

External calls

Regular IROS paper submission
RO-MAN - Call for Papers to Organised/Special Sessions
Solutions World Congress
2017 School and Symposium on Advanced Neurorehabilitation (SSNR2017)

Start-up corner

SNSF calls

Research Equipment (R'Equip) Cutting-edge equipment for your research project: R'Equip is aimed at researchers in Switzerland who need top-quality, innovative equipment for their research work. **Submission deadline 15th March 2017.** Read more

Summer School on Rehabilitation Robotics

The Riener Lab is organising a Summer School on Rehabilitation Robotics which will take place at the Biomedical Engineering School, Shanghai Jiao Tong University (SJTU). Read more

WE WILL BE AT:

CoWriter presented at GES Forum

18-19 March 2017

Dubai

Read more

European Robotics Forum

22-24 March 2017

Edinburgh

Read more

DATE 2017

27-31 March 2017

Lausanne

Read more

Hannover Messe

24-28 April 2017

Hannover

Read more

PRESS COVERAGE

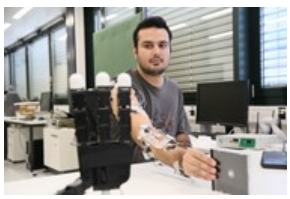
Should robots be taxed for stealing jobs?

"If death and taxes are the only two things that a person can count on, should the latter apply to robots as well, as they take over jobs traditionally done by humans...?" Read more

GeekTime - Mother Nature may not always know best when it comes to robotics

"*New research reveals that the way an insect walks may not be the best option...*" Read more

Allegro Hand in Canada Discovery Channel



Iason Batzianoulis' work on the Allegro Hand from Billard Lab, was featured on the Canadian Discovery Channel.

Please find following links related to start-up support. If you would like to promote your events through our channel, please contact us at nccrrobotics@epfl.ch

CTI Entrepreneurship Training

External positions

Electrical Engineer (ANYbotics)

Tenure-Track, Open Rank Faculty Position (University of Southern California)

Research Fellow in Bioinspired Control for Autonomous Systems in City Infrastructure (University of Leeds)

Electrical & Mechanical development for bioinspired legged robots (Max Planck Institute for Intelligent Systems-campus Stuttgart)

Postdoctoral Researcher in Persistent Mapping and Long-Term Autonomy for Mobile Robots (University of Lincoln)

Postdoc Research Fellow Positions on Robotics & Autonomous Systems (University of Surrey)

Research Associate or Senior Research Associate in Soft Robotics at Bristol Robotics Laboratory (2 posts) (University of Bristol)

Interesting links

How the octopus inspires surgical tools

NCCR Robotics Director

Prof. Dario Floreano

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IMPRESSUM

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More press coverage available through NCCR Robotics website

NEW VIDEOS

Micro Flying Robots: from Active Vision to Event-based Vision

Robert Riener talks to SRF about Cybathlon

Insect-Inspired Mechanical Resilience for Multicopters

Six-Legged Robots Faster Faster Than Nature-Inspired Gait

ARGOS Training Day 1

Joint Efforts Towards Treating Paralysis

NEW MEMBERS

Marie Georgarakis

Marie is a PhD student at Reiner lab, ETH Zurich. Her research focuses on rehabilitation engineering and soft wearable devices, with a special focus on human-machine interaction, and upper limb biomechanics and physiology.

SELECTED NCCR ROBOTICS PUBLICATIONS *

I. Batzianoulis, S. El Khoury, E. Pirondini, M. Coscia and S. Micera, "EMG-based decoding of grasp gestures in reaching-to-grasping motions", in *Robotics and Autonomous Systems*, vol. 91, p. 59-70, 2017.

R. Chavarriaga, M. Fried-Oken, S. Kleih, F. Lotte and R. Scherer, "Heading for new shores! Overcoming pitfalls" in *BCI design, in Brain-Computer Interfaces*, 2017.

D. Falanga, E. Mueggler, M. Faessler and D. Scaramuzza, "Aggressive Quadrotor Flight through Narrow Gaps with Onboard Sensing and Computing using Active Vision", in *IEEE International Conference on Robotics and Automation* (ICRA), 2017.

M. Gassner, T. Cieslewski and D. Scaramuzza, "Dynamic Collaboration without Communication: Vision-Based Cable-Suspended Load Transport with Two Quadrotors" *IEEE International Conference on Robotics and Automation* (ICRA), 2017.

J. E. Huggins, C. Guger, M. Ziat, T. O. Zander and D. Taylor, "Workshops of the Sixth International Brain–Computer Interface Meeting: brain–computer interfaces past, present, and future", in *Brain-computer interfaces,* 2017.

K. Lee, D. Liu, L. Perroud, R. Chavarriaga and J. d. R. Millán, "A Brain-Controlled Exoskeleton with Cascaded Event-Related Desynchronization Classifiers", accepted in *Robotics and Autonomous Systems*, 2017.

S. Mintchev, S. D. de Rivaz and D. Floreano, "Insect-Inspired Mechanical Resilience for Multicopters" in *IEEE Robotics and Automation Letters*, 2017.

F. Mondada, M. Bonani, F. Riedo, M. Briod and L. Pereyre, "Bringing robotics into formal education using the Thymio open source hardware robot", accepted in *IEEE Robotics and Automation Magazine*, 2017.

E. Mueggler, H. Rebecq, G. Gallego, T. Delbruck and D. Scaramuzza, "The Event-Camera Dataset and Simulator: Event-based Data for Pose Estimation, Visual Odometry, and SLAM", *International Journal of Robotics Research*, Feb. 2017.

A. Ozgur, S. Lemaignan, W. Johal, M. Beltran and M. Briod, "Cellulo: Versatile Handheld Robots for Education", in *ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, Vienna, Austria, 2017.

A. Ozgur, W. Johal, F. Mondada and P. Dillenbourg, "Windfield: Learning Wind Meteorology with Handheld Haptic Robots" *ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, Vienna, Austria, 2017.

P. Ramdya, R. Thandiackal, R. Cherney, T. Asselborn, R. Benton, A. Ijspeert and D. Floreano, "Climbing favours the tripod gait over alternative faster insect gaits", *Nature Communications*, vol. 8, p. 14494, 2017.

R. A. Siegfried, S. Klinger, M. Gross, R. W. Sumner, F. Mondada and S. Magnenat, "Improved mobile robot programming performance through real-time program assessment", in *22nd Annual Conference on Innovation and Technology in Computer Science Education*, Bologna, July 3-5, 2017.

A. Ubeda, J. M. Azorín, R. Chavarriaga and J. d. R. Millán, "Classification of upper limb center-out reaching tasks by means of EEG-based continuous decoding techniques", *Journal of NeuroEngineering and Rehabilitation*, vol. 14, no. 9, 2017.

Z. Zhang, C. Forster, D. Scaramuzza, "Active Exposure Control for Robust Visual Odometry", in *HDR Environments IEEE International Conference on Robotics and Automation* (ICRA), 2017.

*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.