View this email in your browser

robotics ✛ Swiss National Centre of Competence in Research

COMMUNITY NEWSLETTER

Issue 47
February 2019
Public Version

📢 **LATEST NCCR NEWS**

Phase 3 Core Professors update

Margarita Chli (EHTZ) and Laura Marchal Crespo (UNIBE) have become Core Professors for the final phase of NCCR Robotics.

Associate Professors update

We welcome Alexandre Alahi (EPFL), Ori Bar-Nur (ETHZ) and Selman Sakar (EPFL) to the community and inform our readers that David Atienza (EPFL) and Olaf Blanke (EPFL) have become Associate Professors.

Open access publishing

We stongly encourage open access publishing. Currently SNSF covers all gold road publication costs directly. SNSF professors can apply directly.

WIPO Technology Trends Report

Dario Floreano participated in the World Intellectual Property Organization's (WIPO) Technology Trends on AI event for the report released last month. He was also one of the experts WIPO consulted for this report.

Our robots and spin-offs drew crowds in Las Vegas

NCCR Robotics robots and spin-offs were shown last month in the Swiss Pavilion at the Consumer Electronics Show in Las Vegas. Read more

---

📢 **CONGRATULATIONS**

Courtine voted *Vaudois de l'année*

Our member Grégoire Courtine was chosen amongst four other finalists as "Vaudois de l'année 2018" by readers of the newspeper 24heures.

In this issue...

ROBOTICS WORLD
Top News

A robot recreates the walk of a fossilized animal

Identifying artificial intelligence "blind spots"

Technology and robots will shake labour policies in Asia and the world

IROS 2018 Exhibition (Part 3 of 3), with Ryan Gariepy, Lars Grimstad and Péter Fankhauser

Robocar year in review for 2018

Robots are being programmed to adapt in real time

World events

Jamie Paik has been listed amongst the Swiss Romandie's 100 personalities in this year's *Le Temps Forum 100* which will take place on 9th May 2019, at the STCC. Read more

Edoardo D'Anna (Micera Lab)

Edoardo's thesis defense was entitled *Designing sensory feedback approaches for restoring touch and position feedback in upper limb amputees*. Edoardo is now a Senior Biomedical Systems Engineer at Magic Leap.

Luca Randazzo (Millán lab)

Luca presented his thesis defense entitled *Neuroprosthetics to support impaired hand functions: A multidisciplinary approach combining brain-machine interfaces and wearable exoskeletons*. He will continue his research as a Postdoc at EPFL.

Our 2018 grant winners

Our 2018 PhD and Postdoc Grant winners, Carine Rognon, Stephanie Walker and Yi Zhou, share their experiences of their exchange programme. Read more

2018 GRANT WINNERS

📣 NCCR ROBOTICS CALLS

CVPR 2019 Workshop on Event-based Vision

Workshop dedicated to event-based cameras and algorithms. Live Demos submission deadline: May 1st, 2019. Read more

Adaptive Motion in Animals and Machines

Call for abstracts - Investigating how animals and humans excel at adaptive movements can help engineers to improve... submission deadline: March 8th, 2019. Read more

Second International Workshop on Event-based Vision

CVPR 2019 — Long Beach, CA

AMAM 2019

The 9th International Symposium on Adaptive Motion of Animals and Machines
EPFL, Lausanne, August 20th-23rd, 2019

📅 2019 EVENT UPDATE - WE WILL BE AT:

Schunk Expert Days

27 February 2019

Denmark

Read more

International Women's Day

8 March 2019

EPFL - Lausanne

11TH INTERNATIONAL EXPERTDAYS SERVICE ROBOTICS
27.02. – 28.02.2019 | ODENSE | DENMARK

HRI (11-14 March)

STIL (21 March)

ERF (20-22 March)

CRAS (21-22 March)

DATE (25-29 March)

Hannover Messe (1-5 April)

RoboSoft (14-18 April)

Deep Learning in Robotics Summit (23-24 May)

External calls

ICDL-EPIROB (D/L 22Feb)

International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (D/L 25 Feb)

Imaging and Digital Engineering Application and Systems (D/L 28 Feb)

TERRINet (D/L 31 March)

Research-IDEAS, EPFL/Zeiss (D/L 28 Feb)

esa Business Incubation Centres - Switzerland (D/L 28 Feb)

Equal Opportunities corner

Hochschulpraktikantin / Hochschulpraktikanten 80% - 100% (DE)

Workshop programme organised by the EO Offices at universities in French speaking Switzerland

11-12th Feb International Day of Women and Girls in Science

Start-up corner

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

4 Ways to Make a Better First Impression with Investors

INNOSUISSE Start-Up Training

Scale up Bootcamps

Ask the Entrepreneur Workshops at ETH Zurich The series of eight workshops is based on a mission and

GDI - European Trend Day

13 March 2019

Rüschlikon

Read more

ERF

20-22 March 2019

Bucharest

Read more

NCCR Robotics will be present featuring Yago and Volaly technology showcases.

Hannover Messe

1-5 April 2019

Hannover

Read more

We will be present with Dronistics, FES-ABILITY and Sevensense. Mano and Volaly showcases featured at the NCCR Robotics corporate booth.

ARCHE 2019 training days & main event

Different training dates from January - May, Main event 29th June - 5th July 2019

Read more

🖼 PRESS COVERAGE

Foldaway Haptics présente son joystick miniature pour vivre la réalité virtuelle

*CES 2019. À peine plus gros qu'une carte de crédit, le ...*Read more *(FR)*

Spin-Off-Boom an der ETH Zürich

Ein neuer Rekord: 27 Firmen wurden letztes Jahr an der ETH Zürich gegründet. Die... Read and Listen *(DE)*

Le Journal de 8h - Présenté par Foued Boukari

*...*Listen at ~09:20 *(FR)*

---
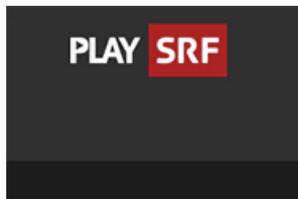
validation and execution of your business case. The goal is to support the best startup talents in Switzerland in order to build world-class startups the fastest way possible.

INNOBOOSTER – Accelerating Market Entry of Deep Tech Spin-Offs «InnoBooster» aims at speeding up innovative, science-based deep tech business cases which have already entered the Venture Kick process and promise high market potential.

Startup Champions Venturelab will be presenting the Swiss National Startup Team and featuring world-class entrepreneurs as guest speakers at Zurich.

External positions

Research Assistant/Associate in Soft Robotics Sensing and Self-Healing (University of Cambridge)

Assistant/Associate Professor - Mechanical Engineering (Clemson University)

Tenured or Tenure-Track Faculty Position in Robotics (Johns Hopkins University)

Technician Opening in Human-Robot Interaction (iit)

PhD candidate in "Dynamic robot interaction and motion compensation (Norwegian University of Science and Technology)

Hochschulpraktikantin / Hochschulpraktikanten 80% - 100% (DE) (Paul Scherrer Institut)

Lecturer in Machine Learning, AI for Robotics (University of Plymouth)

Professor of Robotics: Provably Safe Human-Robot Interaction (University of the West of England)

NCCR Robotics Director

Prof. Dario Floreano

CONTACT

NCCR Robotics
Office MED 1 1526, Station 9
EPFL CH-1015 Lausanne
Switzerland
+41 21 693 76 64
nccr-robotics@epfl.ch
nccr-robotics.ch

For Technology Transfer enquiries please contact:

Jan Kerschgens

Foldable Drone Changes Its Shape in Mid-Air

This quadrotor can alter its shape in flight depending on where it needs to go. Read more

Diese Drohne kommt überall durch

Die Uni Zürich und die ETH Lausanne entwickeln eine Drohne, die Rettungskräfte bei.. Read more (DE)

Robot dog taught itself to get back up when people kick it over

It gets knocked down, but it gets up again. This dog-like robot learns to explore all the ways to stand up after falling... Read more

Dario Floreano: «L'avenir est aux drones multifonctions»

Directeur du Laboratoire des systèmes intelligents de l'EPFL, Dario Floreano estime que les drones seront bientôt capables... Read more (FR)

Once Paralyzed, Three Men Take Steps Again With Spinal Implant

An experimental, pacemaker-like device offers hope for treating spinal injuries. Read more

Les robots fleurissent au Tessin

L'institut d'intelligence artificielle tessinois développe les interactions avec... Read more (FR)

More press coverage available through NCCR Robotics website

▶ NEW VIDEOS

A robot recreates the walk of a 300-million-year-old fossilized animal

Walking again after spinal cord injury - © EPFL+CHUV

The foldable drone: A morphing quadrotor that can squeeze and fly

Learning agile and dynamic motor skills for legged robots

MyoSwiss Testimonial Michael

Autonomous Christmas lab 2018

👤 NEW MEMBERS

Marko Karrer (Chli lab)

Marco is studying robot perception. His research focusses on collaborative perception using multiple agents to address the Simultaneous Localization and Mapping (SLAM) problem.

Joaquín Peñalver-Andrés (Marchal Crespo lab)

Joaquín is studying motor and cognitive neural correlates of neurorehabilitation focusing on the characterization, using EEG signals, of cognitive and motor aspects of motor learning and on how to use this information to optimize motor learning during neurorehabilitation.
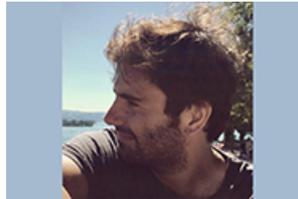
Sina Shahmoradi (Dillenbourg lab)

Sina is working on Learning Technologies and Educational Robotics. His research interest are classroom orchestration that is an interdisciplinary research area between learning sciences, tangible interfaces, Internet of things and social signal processing.

👤 DEPARTING MEMBERS

Jelena Dragas (Karlen lab)

Jelena was working towards an implantable gait tracking system. She is now with Enclustra GmbH, Zurich, an engineering company providing FPGA solutions.

📖 SELECTED NCCR ROBOTICS PUBLICATIONS *

D. Falanga, K. Kleber, S. Mintchev, D. Floreano, D. Scaramuzza "*The Foldable Drone: A Morphing Quadrotor that can Squeeze and Fly*. IEEE Robotics and Auto-mation Letter, 10 December 2018.

H. Moon, J. Martinez-Carranza, T. Cieslewski, M. Faessler, D. Falanga, A. Simovic, D. Scaramuzza, S. Li, M. Ozo, C. De Wagter, G. de Croon, S. Hwang, S. Jung, H. Shim, H. Kim, M. Park, T. C. Au, S. J. Kim "*Challenges*

Intelligent Service Robotics Series 2019.

J. A. Nyakatura, K. Melo, T. Horvat, K. Karakasiliotis, V. R. Allen, A. Andikfar, E. Andrada, P. Arnold, J. Lauströer, J. R. Hutchinson, M. S. Fischer and A. J. Ijspeert. "*Reverse-engineering the locomotion of a stem amniote*", Nature, 17 January 2019.

H. Rebecq, D. Gehrig, D. Scaramuzza "*ESIM: an Open Event Camera Simulator"* 2nd Conference on Robot Learning, PMLR 2018.

M. Yao, H. Cui, X. Xiao, C. Belke, J. Paik, *"Towards Peak Torque Minimization for Modular Self-Folding Robots"* IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2018.

*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, IDSIA **and** UNIBE **to work on wearable, rescue and educational robots.**

The National Centres of Competence in Research
are a research instrument of the Swiss National Science Foundation.

Want to change how you receive these emails?
You can unsubscribe from this list.