Wednesday, Sept 13 2017

(optional) Morning Locomotion (Meeting at Haldenegg)	
Breakfast	
Welcome	Hutter, Siegwart
Keynote Sensefly	Jean-Christophe Zufferey

Session Control

Foresight: Remote Sensing For Autonomous Vehicles Using a Small Unmanned Aerial Vehicle	Alexander Wallar, Brandon Araki, Raphael Chang, Javier Alonso-Mora and Daniela Rus.
Towards Controlling Bucket Fill Factor in Robotic Excavation by Learning Admittance Control Setpoints	Heshan Fernando, Joshua Marshall, Håkan Almqvist and Johan Larsson.
Coffee	

Highlight talks 1

Safe Self-Collision Avoidance for Versatile Robots based on Bounded Potentials	David Gonon, Dominic Jud, Péter Fankhauser and Marco Hutter.
Finding Better Wide Baseline Stereo Solutions using Feature Quality	Stephen Nuske and Jay Patravali.
Fast and Power-efficient Embedded Software Implementation of Digital Image Stabilization for Low-cost Autonomous Boats	Stefano Aldegheri, Domenico Bloisi, Jason Joseph Blum, Nicola Bombieri and Alessandro Farinelli.
Sensing Water Properties at Precise Depths from the Air	John-Paul Ore and Carrick Detweiler.
Boundary Wire Mapping on Autonomous Lawn Mowers	Nils Einecke, Jörg Deigmöller, Keiji Muro and Mathias Franzius.
Aerial and Ground-based Collaborative Mapping: An Experimental Study	Ji Zhang and Sanjiv Singh.
AirSim: High-Fidelity Visual and Physical Simulation for Autonomous Vehicles	Shital Shah, Debadeepta Dey, Chris Lovett and Ashish Kapoor.
An Analysis of Degraded Communication Channels in Human-Robot Teaming and Implications for Dynamic Autonomy Allocation	Michael Young, Mahdieh Nejati, Ahmetcan Erdogan and Brenna Argall.
interactive session of all 5min talks *(HG F26.1, F26.3, F26.5)*	
Lunch (Mensa), Coffee (GEP)	

Session Mapping

Field Deployment of the Tethered Robotic eXplorer to Map Extremely Steep Terrain	Patrick McGarey, David Yoon, Tim Tang, Francois Pomerleau and Tim Barfoot.
Towards Automatic Robotic NDT Dense Mapping for Pipeline Integrity Inspection	Jaime Valls Miro, Dave Hunt, Nalika Ulapane and Michael Behrens.
Real-time Semantic Mapping for Autonomous Off-Road Navigation	Daniel Maturana, Po-Wei Chou and Masashi Uenoyama.
Transfer Haldenegg Hönggerberg (Bus departing 15:14 from ETH Polyterasse)	
TOUR upper floor HIB including videos of how the roof was built	

Hardware Talks with Demos

Dynamic System Identification, and Control for a cost-effective open-source VTOL MAV	Inkyu Sa, Mina Kamel, Raghav Khanna, Marija Popovic, Juan Nieto and Roland Siegwart.
Autonomous Aerial Inspection using Visual-Inertial Robust Localization and Mapping	Lucas Teixeira, Ignacio Alzugaray and Margarita Chli.
Autonomous Mission with a Mobile Manipulator - A Solution to the MBZIRC	Jan Carius, Martin Wermelinger, Balasubramanian Rajasekaran, Kai Holtmann and Marco Hutter.
Towards a Generic Solution for Inspection of Industrial Sites	Marco Hutter, Remo Diethelm, Samuel Bachmann, Péter Fankhauser, Christian Gehring, Vassilios Tsounis, Andreas Lauber, Fal
Life Extension: An Autonomous Docking Station for Recharging Quadrupedal Robots	Hendrik Kolvenbach and Marco Hutter.
Various demonstrations on Hönggerberg Apero	
Robotics and Architecture	Russell Loveridge
Demo RFL	
BBQ and ongoing Demos at HIB	
Transfer Bus 1	
Transfer Bus 2	