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(optional) Morning Locomotion (Meeting at Haldenegg)

Breakfast

Keynote: NSA

Terry Fong

Session Systems and Observation

Controlling Ocean One

Gerald Brantner and Oussama Khatib

Field Report: UAV-based Volcano Observation System for Debris Flow Evacuation Alarm

Koji Nagatani, Ryosuke Yajima, Seiga Kiribayashi, Tomoaki Izu, Hiromichi Kanai, Hiroyuki Kanazaki, Jun Minagawa and Yui Moriyma

Coffee

Highlight talks 3

11:00 Generation of Turning Motion for Tracked Vehicles using Reaction Force of Stairs' Handrail

Yoshihiro Ohtsuka, Shotauro Kojima, Kazumichi Ohno, Yoshio Ohtsuka, Ryosuke Hamada, Takahiro Suzuki and Satoshi Tadokoro

11:05 Improved Low-Cost and High-Performance Navigation for Robot Autonomous Landing of UAVs

Keisuke Itoh, Shinya Ito, Shota Matsuda, Naoya Kikuchi, Junji Mitsuhashi, Kazumasa Furuta, Shunichi Arakawa and Robert Engqvist

11:10 Cooperative UAVs for Serial Inspection of the Aging Infrastructure

Sungho Min, Chulmin Kim, Chulmin Kim, Chulmin Kim, Chulmin Kim and Chulmin Kim

11:15 Adaptive Models for Trajectory Adaptation in State Estimation

Michael Neff, Marcel Bigler and Thomas Howard

11:20 Mapping on the Fly: Real-Time 3D Scene Reconstruction, Digital Surface Map and Incremental Orthorectification Generation for Fixed-Wing UAVs

Tom Hestermann and Roland Siegwart

11:25 Local Path Optimizer for an Autonomous Truck in a Harbor Scenario

Jennifer David, Rafael Valencia, Roland Philippson and Karl Iagnemma

11:30 Autonomous Landing: Concepts and Components for Design

Samuel Wu, Terry Fong, Mark S. Moore, Nam Kyung Kim and Nelson High

11:35 State Estimation and Localization for 300-based Reaction Pressure Vessel Inspection

Timothy Lee and Nathan Michael

interactive session of all 5min talks
(PG P26.1, P26.2, P26.5)

Lunch (Menu), Coffee (ESP)

Session Navigation and Planning

14:05 I Can See For Miles And Miles: An Extended Field Test of Visual Teach & Repeat 2.0

Michael Paton, Kirk MacTavish, Lucio-Peter Berchi, Sebastian Kai van Es and Timothy Barfoot

14:25 Dynamically Feasible Motion Planning for Micro Air Vehicles using an EgoCylinder

Anthony Fragoso, Cenkür Çigla, Roland Bruckers and Larry Matthies

14:45 Strategic Autonomy for Reducing Risk of Sun-Synchronous Lunar Polar Exploration

Nathan Otter, David Wittengreen and William Whittaker

15:05 Towards Visual Teach & Repeat for GPS-Denied Flight of a Fixed-Wing UAV

Michael Warren, Michael Paton, Kirk MacTavish, Angela Schölg and Tim Barfoot

15:25 Closing, Goodbye

Hester, Siegwart, Scientific Board

Farewell drinks and Snacks in GEP

Optional evening in the city