

Austrian Robotics Workshop 2018

Thursday, 17.5.2018

8:30 **Registration**

8:55 **Welcome (Justus Piater)**

9:00 **Keynote: Stéphane Doncieux (Session chair: Justus Piater)**

Session 1: Robot Perception

10:00 Estimating a Sparse Representation of Gaussian Processes Using Global Optimization and the Bayesian Information Criterion Wilfried Wöber, Georg Novotny, Mohamed Aburaia, Richard Otrebski, Wilfried Kubinger

10:30 **Coffee**

11:00 Implementation of a Capacitive Proximity Sensor System for a Fully Maneuverable Modular Mobile Robot to Evade Humans Andreas Rabl, Philipp Salner, Luis Büchi, Julian Wrona, Stephan Mühlbacher-Karrer, Mathias Brandstötter

11:30 Analysis of Feature Tracking Methods for Vision-Based Vibration Damping of Flexible Link Robots Florian Pucher, Hubert Gattringer, Andreas Müller

12:00 Autonomous Extrinsic Calibration of a Depth Sensing Camera on Mobile Robots Farhoud Malekghasemi, Georg Halmetschlager-Funek, Markus Vincze

12:30 **Lunch**

13:30 **Keynote: Jan Peters (Session chair: Philipp Zech)**

Session 2: Educational Robotics

14:30 Towards a Formal Definition of Educational Robotics Julian M Angel-Fernandez, Markus Vincze

15:00 **Coffee**

Session 3: Field and Rescue Robots, Construction Robotics, Industrial applications

15:30 Safety of Industrial Applications with Sensitive Mobile Manipulators - Hazards and Related Safety Measures Lukas Kaiser, Andreas Schlotzhauer, Mathias Brandstötter

Session 4: Industrial Spotlight

16:00 MMAssist_II: Assistance in production in the context of human - machine cooperation Christian Woegerer, Matthias Plasch, Manfred Tscheligi, Sebastian Egger-Lampl, Andreas Pichler,

Session 5: Poster Session

16:30 Open poster discussions

17:30 **Closing Day 1**

19:00 **Dinner at Restaurant Lichtblick**

Friday, 18.5.2018

9:00 **Keynote: Tamim Asfour (Session chair: Erwan Renaudo)**

Session 6: Human-Robot Interaction and Usability

10:00 FlexRoP - flexible, assistive robots for customized production Markus Ikeda, Srinivas Maddukuri, Michael Hofmann, Andreas Pichler, Xiang Zhang, Athanasios Polydoros, Justus Piater, Klemens Winkler, Klaus Brenner, Ioan Harton and Uwe Neugebauer

10:30 **Coffee**

11:00 Development of a 3D-Printed Bionic Hand with Muscle- and Force Control Florian Danneder, Paul Herwig Pachschwöll, Mohamed Aburaia, Erich Markl, Maximilian Lackner, Corinna Engelhardt-Nowitzki, Diane Shooman

11:30 **Farewell (Justus Piater)**

12:00 **Lunch**