Plenary lecture
Industry talk
Regular talk
Student talk

Thursday, 22.5.2014

Technical Session — Chair: Hubert Gattringer

Time	Speaker	Talk	Room
08:30 09:15		Registration	**Rep. C**
09:00 09:20	H. Gattringer, G. Kotsis, G. Schatz *Johannes Kepler University Linz* *Linz Center of Mechatronics GmbH*	Welcome Note	
09:20 09:55	Jan Swevers *Katholieke Universiteit Leuven*	Plenary Lecture: Optimal Path Following for Robot Systems	
09:55 10:10	C. Eberst *Convergent Information Technologies GmbH*	Automate the Automation: Programing robots with less risk, less cost and more speed automatically	
10:10 10:30		Coffee Break	**Rep. A, B**

Technical Session — Chair: Johannes Gerstmayr — Rep. C

Time	Speaker	Talk	Room
10:30 10:45	G. Bachler *Bernecker + Rainer Industrie Elektronik GmbH*	Safe Robotics	
10:45 11:05	M. Brandstötter, A. Angerer, M. Hofbaur *University Hall/Tyrol*	An Analytical Solution of the Inverse Kinematics Problem of Industrial Serial Manipulators with an Ortho-parallel Basis and a Spherical Wrist	
11:05 11:20	M. Zillich *Blue Danube Robotics OG*	Safe human robot collaboration in service and industry	
11:20 11:40	U. Kuenzer, M. L. Husty *University Innsbruck*	Joint Trajectory Generation Using All Solutions of Inverse Kinematics of General 6-R Robots	
11:40 11:55	M. Lech *taurob GmbH*	taurob tracker - a mobile first-response robot with self-deploying wireless mesh network	
12:00		Lunch	**Mensa**
13:00 13:50		Lab Tour (Robotics, Technical Mechanics)	**MT016**

Technical Session — Chair: Michael Hofbaur — Rep. C

Time	Speaker	Talk	Room
14:00 14:20	L. Schwarz, M. Neubauer, H. Gattringer *Johannes Kepler University Linz*	A Contribution to Geometric Calibration of Industrial Robots with Laser Pointers	
14:20 14:40	R. Eder, J. Gerstmayr *Linz Center of Mechatronics GmbH*	Identification of vibration-relevant parameters in robotic systems	
14:40 15:00	G. Berndl, K. Springer, H. Gattringer, J. Simader *Johannes Kepler University Linz*	Adaptive optimal path planning and nonlinear model predictive control for a nonholonomic ultraflat overrunable mobile robot	
15:00 15:20	M. Suchi, M. Bader, M. Vincze *TU Wien*	Meta-Heuristic search strategies for Local Path-Planning to find collision free trajectories	

15:20	15:40	G. Stollnberger, C. Moser, C. Zenz, M. Tscheligi, D. Szczesniak-Stanczyk, M. Janowski, W. Brzozowski, A. Wysokinski *University of Salzburg, University of Lublin*	Capturing expected user experience of robotic systems in the health care sector

Student Session

Chair: Wilfried Kubinger

SZ 2

Time		Speaker	Talk
14:00	14:12	M. Kraupp, M. Grotschar *FH-Technikum Wien*	Augmenting a mobile Austrobotics-Platform with sensors for USAR
14:12	14:24	M. C. Perroni, C. Doppler *FH-Technikum Wien*	Arthur: An easy to build, low-cost, ROS based, modular mobile robot for educational purposes
14:24	14:36	S. Stürz, C. Doppler *FH-Technikum Wien*	Improving the position estimation of a tracked mobile platform by enhancing odometry with inertial momentum and magnetometer data
14:36	14:48	S. Imlauer, K. Lassnig, J. Maurer, G. Steinbauer *TU Graz*	Life Sign Detection Based on Sound and Gas Measurements
14:48	15:00	G. Huber, M. Ikeda, M. Hofmann, C. Heindl, A. Pichler *PROFACTOR GmbH*	Full Autonomous Quadcopter for Indoor 3D Reconstruction
15:00	15:12	S. Hangl, S. Krivic, P. Zech, E. Ugur, J. Piater *University Innsbruck*	Exploiting the Environment for Object Manipulation
15:12	15:24	M. Bajones, D. Wolf, J. Prankl, M. Vincze *TU Wien*	Where to look first? Behaviour control for fetch-and-carry missions of service robots
15:24	15:36	A. Entinger *LXRobotics GmbH*	Arduino based I/O-system for rapid prototyping of robotic systems

15:40	16:00		Coffee Break **Rep. A, B**

Austrian Robotics Platform

Rep. C

16:00		Begrüßung, Einleitung (ARP Organisatoren)
		Gesamtüberblick ARP und Eingliederung in ÖVE (Profactor)
		Präsentation Robotic Calls 2015 und euRobotics(FFG)
		Key Note Speech Forschung: Robert Trappl (ÖFAI)
		Präsentation Vorteile, Nutzen für Wirtschaft (FerRobotics)
		Präsentation Nutzen für Forschung (TU Graz)
		Präsentation European Robotics Forum ERF 2015 in Wien (TU Wien)
	18:15	Gründungsakt

Workshop Dinner & Best Student Paper Award

Rep. A, B

18:30		IEEE RAS Best Student Paper Award
18:35		Workshop Dinner

Friday, 23.5.2014

Technical Session			**Chair: Klemens Springer**	**Rep. C**
08:30	09:15	Bruno Siciliano *Universita di Napoli Federico II*	Plenary Lecture: Grasping and Control of Multi-fingered Hands	
09:15	09:35	M. Rooker, M. Hofmann, J. Minichberger, M. Ikeda, G. Ebenhofer, G. Fritz, A. Pichler *PROFACTOR GmbH*	Quality Inspection performed by a Flexible Robot System	
09:35	09:55		Coffee Break	**Rep. A, B**
Technical Session			**Chair: Gerald Steinbauer**	**Rep. C**
09:55	10:10	U. Pammer *Knapp AG*	Pick-it-Easy Robot	
10:10	10:30	M. Beinhofer, W. Burgard *University of Freiburg*	Efficient Estimation of Expected Distributions for Mobile Robot Navigation	
10:30	10:45	R. Naderer *FerRobotics Compliant Robot Technology GmbH*	Contact Problem in Robotics – Active Contact Flange	
10:45	11:05	S. Bock, R. Klöbl, T. Hackl, O. Aichholzer, G. Steinbauer *TU Graz*	Playing Nine Men's Morris with the Humanoid Robot Nao	
11:05	11:20	D. Perucca *Güdel AG*	Powerful Robot Solutions based on Cartesian linear Systems	
11:20	11:40		Coffee Break	**Rep. A, B**
Technical Session			**Chair: Markus Vincze**	**Rep. C**
11:40	12:00	C. Schuetz, J. Baur, J. Pfaff, T. Buschmann, H. Ulbrich *TU München*	Multipurpose Redundant Manipulators for Agricultural Tasks	
12:00	12:15	T. Schönberger *SPS Technik GmbH*	How to automate grinding processes profitable	
12:15	12:35	A. Winkler, G. Grabmair *Fachhochschule Wels*	Design and implementation of a path control for a high-dynamic handling system	
12:35	12:50	J. Karner *Josephinum Research*	Development of a hybrid vehicle for agriculture and municipality	
12:50	13:10	J. Schwandtner, M. Mayrhofer, J. Hammerl *AMST-Systemtechnik GmbH*	Optimal Motion Cueing on a Seven Axis Motion Simulator	
13:10	13:25	A. Richtsfeld *DS Automotion GmbH*	Automated guided vehicles (AGVs) for industrial manufacturing and logistic applications	
13:25		End ARW 2014		