

Dr. Kiattisin Kanjanawanishkul

Background

- 1996 - 2000: B. Eng. in Electrical Engineering at Prince of Songkla University, Thailand
- 2004 - 2006: M. Sc. in Mechatronics at the University of Siegen, Germany
- Since 11/2006: a Ph.D. Student at the Department of Computer Architecture, University of Tuebingen

Research Interests

- Multi-Robot Systems/Multi-Agent Systems
- Nonlinear Hybrid Dynamical Systems
- Predictive and Optimal Control
- Formation Control/Coordination and Cooperative Control

Current Projects

- Distributed Coordination in Multi-Robot Systems

Publications

- [1] Kiattisin Kanjanawanishkul, Marius Hofmeister, and Andreas Zell. Path following with an optimal forward velocity for a mobile robot. In *7th IFAC Symposium on Intelligent Autonomous Vehicles (IAV)*, Lecce, Italy, September 2010.
- [2] Kiattisin Kanjanawanishkul and Andreas Zell. Distributed role assignment in multi-robot formation. In *7th IFAC Symposium on Intelligent Autonomous Vehicles (IAV)*, Lecce, Italy, September 2010.
- [3] Kiattisin Kanjanawanishkul, Marius Hofmeister, and Marius Zell. Experiments on formation switching for mobile robots. In *IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2010)*, pages 323--328, Montréal, Canada, July 2010.
- [4] Kiattisin Kanjanawanishkul, Marius Hofmeister, and Andreas Zell. Coordinated path following for mobile robots. In Rüdiger Dillmann, Jürgen Beyerer, and Christoph Stiller, editors, *Autonome Mobile Systeme 2009 - 21. Fachgespräch*, pages 185--192, Karlsruhe, Germany, December 2009. Springer-Verlag.
- [5] Kiattisin Kanjanawanishkul, Marius Hofmeister, and Andreas Zell. Smooth reference tracking of a mobile robot using nonlinear model predictive control. In *4th European Conference on Mobile Robots (ECMR)*, pages 161--166, Mlini/Dubrovnik, Croatia, September 2009. KoREMA, Zagreb.
- [6] Kiattisin Kanjanawanishkul and Andreas Zell. Path following for an omnidirectional mobile robot based on model predictive control. In *IEEE International Conference on Robotics and Automation (ICRA 2009)*, pages 3341--3346, Kobe, Japan, May 12-17 2009. IEEE.
- [7] Kiattisin Kanjanawanishkul. Formation control of omnidirectional mobile robot using distributed model predictive control. In *Proceedings of Second International Conference on Robot Communication and Coordination (ROBOCOMM-2009)*, Odense, Denmark, March 31-April 2 2009.
- [8] Kiattisin Kanjanawanishkul and Andreas Zell. Distributed model predictive control for coordinated path following control of omnidirectional mobile robots. In *IEEE International Conference on Systems, Man, and Cybernetics (SMC 2008)*, pages 3120--3125, Singapore, October 12-15 2008. IEEE.
- [9] Kiattisin Kanjanawanishkul and Andreas Zell. A model-predictive approach to formation control of omnidirectional mobile robots. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2008)*, pages 2771--2776, Nice, France, September 22-26 2008. IEEE.
- [10] Kiattisin Kanjanawanishkul, Xiang Li, and Andreas Zell. Nonlinear model predictive control of omnidirectional mobile robot formations. In Rüdiger Dillmann and Wolfram Burgard, editors, *10th International Conference on Intelligent Autonomous Systems*

(IAS 2008), pages 41--48, Baden-Baden, Germany, July 23-25 2008.

- [11] Xiang Li, Kiattisin Kanjanawanishkul, and Andreas Zell. Nonlinear model predictive control of an omnidirectional mobile robot. In *10th International Conference on Intelligent Autonomous Systems (IAS 2008)*, pages 92--99, Baden-Baden, Germany, July 23-25 2008. IOS Press.

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