



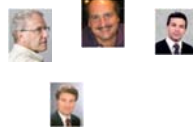
2014 IEEE/RSJ International Conference on Intelligent Robots and Systems
Full Day Workshop in Salon 12
September 14th, Chicago, USA

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This workshop is organized in the framework of the [IEEE Robotics and Automation's Technical Committee on: Autonomous Ground Vehicles and Intelligent Transportation Systems](#)

TC-chairs: P. Martinet, C. Laugier, C. Stiller



Session I: Localization & mapping 8:30

Chairman: *C. Stiller* (KIT, Germany)

Title: Automated driving in urban environments: car sharing distribution system and Parking Valet as canonical use-cases 8:30

Keynote speaker: **Fawzi Nashashibi** (INRIA, Rocquencourt, France) 35min + 5min questions

Co-authors: John Mullane, Keith Leung, Felipe Inostroza

Title: An Iterative Graph Optimization Approach for 2D SLAM 9:10

Authors: **He Zhang**, Guoliang Liu, and Zifeng Hou 17min + 3min questions

Title: Appearance-based Localization across Seasons in a Metric Map 9:30

Authors: **Chris Beall**, Frank Dellaert 17min + 3min questions

Title: High Precision 6DOF Vehicle Navigation in Urban Environments using a Low-cost Single-frequency GPS Receiver 9:50

Authors: **Sheng Zhao**, Yiming Chen, Jay A. Farrell 17min + 3min questions



Session II: Perception and Situation Awareness 10:30

Chairman: **C. Laugier** (INRIA, France)

Title: Situation Perception and Prediction for Autonomous Driving 10:30

Keynote speaker: Chritoph Stiller (KIT, Karlsruhe, Germany) 35min + 5min questions

Co-Authors: Julius Ziegler, Markus Schreiber, Philipp Bender

Title: Detection and Tracking of the Vanishing Point on a Horizon for Automotive Applications 11:10

Authors: **Young-Woo Seo**, Ragnathan Rajkumar 17min + 3min questions

Title: Robot Navigation Using Radio Signal in Wireless Sensor Networks 11:30

Authors: **Ju Wang**, Mohammad M Tabanjeh, Tariq Qazi, Brian Bennett, Cesar Flores-Montoya, Eric Glover, Meesha Rashidi 17min + 3min questions



Session III: Interactive session 13:30 -14:30

Chairman: **P. Martinet** (IRCCyN/ECN, Nantes, France)

Title: Task and motion planning for Selective Weed Control using a Team of Autonomous Vehicles

Authors: **I.A. Hameed**, A. la Cour-Harbo, K.D. Hansen

Title: Remaining Range Indicator System for Electric Vehicle

Authors: **R. Potarusov**, I. Kobersy, J.-P. Lebacque

Title: Landmark Discovery for Single-View Cross-Season Localization

Authors: Ando Masatoshi, Chokushi Yuuto, **Tanaka Kanji**

Title: Obstacle Detection and Avoidance from an Automated Guided Vehicle

Authors: **Roger Bostelman**, Will Shackelford, Geraldine Cheok

Title: Frontier Based Exploration with Task Cancellation

Authors: P.G.C.N. Senarathne, **Danwei Wang**

Title: A Pareto Front-Based Multiobjective Path Planning Algorithm

Authors: **Alexander Lavin**



Session IV: Navigation, Control, Planning 14:30

Chairman: **Fawzi Nashashibi** (INRIA, France)

Title: Formulation, Calibration, and Uses of Constrained Kinematic Models for WMRs 14:30

Keynote speaker: Alonzo Kelly (Robotics Institute, CMU, Pittsburgh, Pennsylvania, USA) 35min + 5min questions

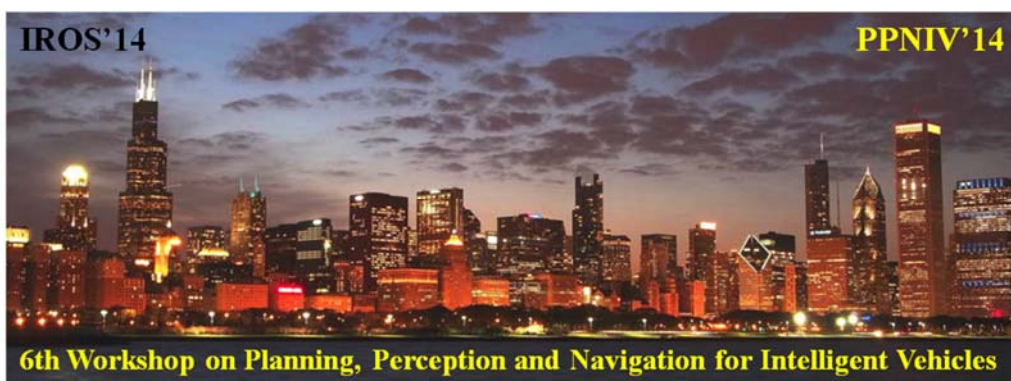
Co-Author: Neal Seegmiller

Title: Modified flatbed tow truck model for stable and safe platooning in presences of lags, communication and sensing delays 15:10

Authors: A. Ali, G. Garcia, P. Martinet 17min + 3min questions

Title: Global Robot Ego-localization Combining Image Retrieval and HMM-based Filtering 15:30

Authors: Cedric Le Barz, Nicolas Thome, Matthieu Cord, Stephane Herbin, Martial Sanfourche 17min + 3min questions



Panel Session: Towards driverless vehicles ? 16:20

Chairman: **C. Laugier**

The purpose of this panel session is to discuss the hot topics of "Advanced Driving Assistance Systems" and of "Driverless Vehicles". All the related Technical, Socio-economic and Legal issues will be addressed and discussed.

Participant: **Seiichi Mita** (Toyota Technological Institute Nagoya, Japan)

Participant: **Fawzi Nashashibi** (INRIA, France)

Participant: **Christoph Stiller** (KIT, Germany)



PPNIV14

- ✓ Near 100 attendees → Submit and share your work through PPNIV workshops
- ✓ Great Keynotes and Panel
- ✓ Papers, presentations and proceedings will be on PPNIV14 webpage

→ <http://ppniv14.irccyn.ec-nantes.fr>

Next events:

- ✓ Special issue on Perception and Planning for Autonomous Vehicles in ITS Magazine
- ✓ New PPNIV'15 will be submitted to IROS'15

<http://www.ieee-ras.org/autonomous-ground-vehicles-and-intelligent-transportation-systems>