

7th Workshop on Planning, Perception and Navigation for Intelligent Vehicles

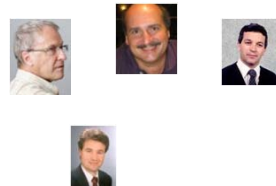
2015 IEEE/RSJ International Conference on Intelligent Robots and Systems
Full Day Workshop in Saal F
September 28th, Hamburg, Germany

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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

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Session I: Localization & mapping 8:30

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

Keynote speaker: Philippe Bonnifait (Heudiasyc, France) *35min + 5min questions*

Title: Autonomous Integrity Monitoring of Navigation Maps on board Vehicles

Title: Collaborative Visual SLAM Framework for a Multi-Robot System

Authors: **Nived Chebrolu**, David Marquez-Gamez and Philippe Martinet *17min + 3min questions*

Title: Improving Vision-based Topological Localization by Combining Local and Global Image Features

Authors: Shuai Yang and **Han Wang** *17min + 3min questions*

Title: PML-SLAM: a solution for localization in large-scale urban environments

Authors: **S. Alsayed**, G. Bresson, F. Nashashibi, A. Verroust Blondet *17min + 3min questions*

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Session II: Perception and Situation Awareness 10:30

Chairman: **U. Nunes** (ISR Portugal)

Keynote speaker: Dr.-Ing. Michael Darms (Volkswagen Aktiengesellschaft, Group Research, Germany)

Title: Perception for automated and assisted driving 35min + 5min questions

Title: Free-space Detection using Online Disparity-supervised Color Modeling 17min + 3min questions

Authors: **Willem P. Sanberg**, Gijs Dubbelman and Peter H.N. de With

Title: Vision-Based Road Detection using Contextual Blocks 17min + 3min questions

Authors: **Caio Cesar Teodoro Mendes**, Vincent Fremont and Denis Fernando Wolf

Title: Following Dirt Roads at Night-Time: Sensors and Features for Lane Recognition and Tracking

17min + 3min questions

Authors: **Sebastian F. X. Bayerl**, Thorsten Luetzel and Hans-Joachim Wuensche

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

Chairman: **W. Han** (*NTU, Sinagpore*)

Title: Generating Compact Models for Traffic Scenarios to Estimate Driver Behavior Using Semantic Reasoning

Authors: **Ilya Dianov**, Karinne Ramirez-Amaro and Gordon Cheng

Title: 16 channels Velodyne versus planar LiDARs based perception system for Large Scale 2D-SLAM

Authors: Nobili S., **Dominguez S.**, Garcia G., Martinet P.

Title: Discriminative Map Matching Using View Dependent Map Descriptor

Authors: Liu Enfu **Tanaka Kanji**

Title: Path Planning and Steering Control for an Automatic Perpendicular Parking Assist System

Authors: Plamen Petrov **Fawzi Nashashibi** and Mohamed Marouf

Title: Obstacle segmentation with low-density disparity maps

Authors: **Daniela A. Ridel**, Patrick Y. Shinzato and Denis F. Wolf

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Session IV: Planning & Navigation 14:30

Chairman: **P. Bonnifait** (Heudiasyc, France)

Title: Determining the Nonexistence of Evasive Trajectories for Collision Avoidance Systems 14:30

Keynote speaker: Pr Matthias Althoff (Technische Universität München, Germany) 35min + 5min questions

Title: Safe prediction-based local path planning using obstacle probability sections 17min + 3min questions

Authors: **Tanja Hebecker** and Frank Ortmeier

Title: Improving Monte Carlo Localization using Reflective Markers: An Experimental Analysis 17min + 3min questions (Presented by **S. Dominguez Quijada**)

Authors: Francesco Leofante, Gwénoél Le Moal, Gaëtan Garcia , Patrice Rabaté

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Session V: Sensing 16:30

Chairman: **U. Nunes** (ISR, Portugal)

Keynote speaker: **Christian Laugier** (INRIA, France)

Title: Embedded Bayesian Perception & Risk Assessment for ADAS & Autonomous Cars *35min + 5min questions*

Title: 360 degree 3d ground surface reconstruction using a single rotating camera *17min + 3min questions*

Authors: **Motooka, Sugimoto**, Okotumi, Shima

Title: Towards Characterizing the Behavior of LiDARs in Snowy Conditions *17min + 3min questions*

Authors: **Sebastien Michaud**, Jean-Francois Lalonde, and Philippe Giguere

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Next events:

- ✓ Special Issue on Safety and Security of Intelligent Vehicles, IEEE Intelligent Transportation Systems Magazine, J. C. Cunha, K. Branco, A. Casimiro, U. Nunes

- ✓ New PPNIV'16 will be submitted to IROS'16

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