



**8<sup>th</sup> Workshop on Planning, Perception and Navigation for Intelligent Vehicles**  
*A bridge between Robotics and ITS technologies*

[2016 IEEE Intelligent Transportation Systems Conference](#)

**Full Day Workshop**

**November 1st, Rio de Janeiro, Brazil**

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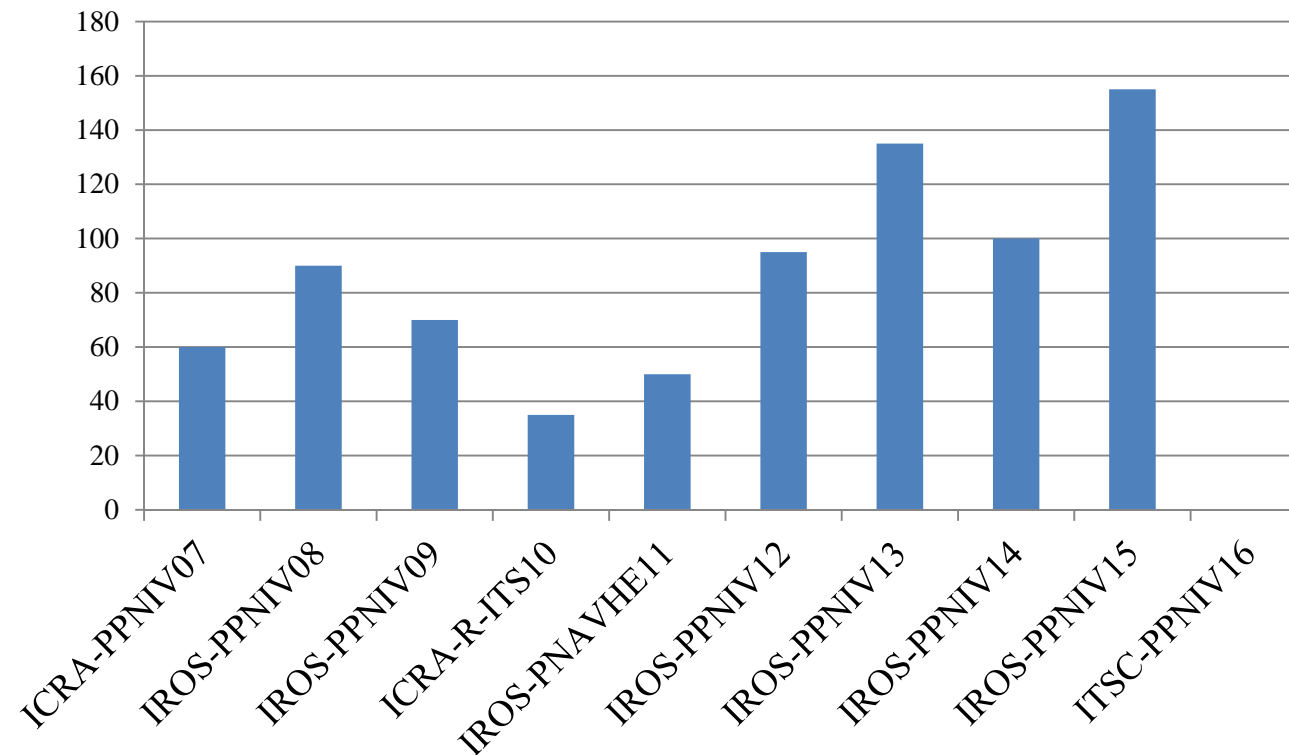
**This workshop is organized in the framework of the [IEEE Robotics and Automation's Technical Committee on: Autonomous Ground Vehicles and Intelligent Transportation Systems](#)**

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



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## Attendees







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**Session I: Perception & Situation Awareness 8:50**

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

**Title: On the use of maps for Automated Driving 8:50**

**Keynote speaker: Christoph Stiller** (KIT, Germany) 35min + 5min questions

**Title: Increasing the Convergence Domain of RGB-D Direct Registration Methods for Vision-based Localization in Large Scale Environments 9:30**

Authors: R. Martins, P. Rives 17min + 3min questions

**Title: 3D Object Tracking in Driving Environment: a short review and a benchmark dataset 9:50**

Authors: P. Girão, A. Asvadi, P. Peixoto, U. Nunes 17min + 3min questions

**Title: The Development of an Ontology for Context Modelling for Driving Context Modelling and Reasoning 10:10**

Authors: Z. Xiong, V. Dixit, S. Travis Waller 17min + 3min questions



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**Session II: Mapping, Localization and Dynamic Scenes simulation 11:00**

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

**Title: Real Time Pedestrian Tracking, Prediction, and Navigation 11:00**

**Keynote speaker: Dinesh Manocha** (University of California at Berkeley, USA) 35min + 5min questions

**Title: Occupancy Grid based Urban Localization Using Weighted Point Cloud 11:40**

Authors: L. Guo, M. Yang, B. Wang, C. Wang 17min + 3min questions

**Title: Cooperative Localization via DSRC and Multi-Sensor Multi-Target Track Association 12:00**

Authors: A. Hamdi Sakr, G. Bansal 17min + 3min questions



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**Session III: Behaviors Modeling and Learning, Motion Prediction and Decision-Making**  
**14:00**

Chairman: *Christoph Stiller* (KIT, Germany)

**Title: Deep Learning for Robot Perception and Navigation 14:00**

**Keynote speaker: Wolfram Burgard** (Autonomous Mobile System Laboratory, University of Freiburg, Germany) *35min + 5min questions*

**Title: High-speed highway scene prediction based on driver models obtained from demonstrations 14:40**

Authors: D. Sierra González, J. Steeve Dibangoye, C. Laugier *17min + 3min questions*

**Title: Space Discretization Using Gaussian Process for Road Intersection 15:00**

Authors: M. Barbier, C. Laugier, J. Ibanez Guzman, O. Simonin *17min + 3min questions*





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**Session IV: Planning and Navigation 16:00**

Chairman: *Urbano Nunes* (University of Coimbra, Portugal)

**Title: Sensor Based Navigation 16:00**

**Keynote speaker:** *Philippe Martinet* (IRCCyN/ECN, France) 35min + 5min questions

Co-Author: G. Garcia, S. Dominguez Quijada, O. Kermorgant

**Title: Optimal Trajectory Planning for Autonomous Driving Integrating Logical Constraints: a MIQP perspective 16:40**

Authors: X. QIAN, F. Alché, P. Bender, C. Stiller, A. de La Fortelle 17min + 3min questions

**Title: Autonomous Personal Mobility Scooter for Multi-Class Mobility-on-Demand Service 17:00**

Authors: H. Andersen, Y. Hong Eng, W.K. Leong, C. Zhang, H.X. Kong, S. Pendleton, M. H. Ang Jr., D. Rus 17min + 3min questions

**Title: Autonomous parking using a sensor based approach 17:20**

Authors: D. Pérez-Morales, S. Dominguez Quijada, O. Kermorgant, P. Martinet 17min + 3min questions



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### PPNIV16

- ✓ Near 95 attendees → *Submit & share your work through PPNIV workshops series*
- ✓ Great Keynotes and Presentations
- ✓ Papers included in the ITSC16 proceedings & IEEE Xplore
- ✓ Presentations will be on PPNIV16 webpage  
→ <http://ppniv16.irccyn.ec-nantes.fr>



### Next events:

- ✓ Special issue on Perception and Planning for Autonomous Vehicles in ITS Magazine (ITSM) or IEEE Transaction on Intelligent Vehicles (T-IV)
- ✓ New PPNIV'17 will be submitted to IROS'17 (Vancouver)
- ✓ Related workshop has been submitted to ICRA'17 (Singapore)

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