



The 2018 IEEE Intelligent Vehicles Symposium (IV'18)

Changshu, Jiangsu, China

June 26 - June 30, 2018

IV'18 Workshop on Parallel Vision in Intelligent Vehicles Call for Papers

- **Content and List of Topics:**

Recent advances in computer vision (including object detection, segmentation, tracking, and scene understanding) have promoted the development of intelligent vehicles significantly. However, vision-based methods for intelligent vehicles research require large amounts of annotated images for training, testing, and explaining the computer vision models effectively, while the collection of large-scale, diversified labelled data from the real world is both expensive and error-prone. To tackle these issues, some researchers at Chinese Academy of Sciences proposed parallel vision, which is a virtual-real interactive approach to intelligent visual computing and comprises artificial scenes, computational experiments, and parallel execution. By synthesizing and exploiting virtual images to build more reliable computer vision systems, parallel vision is attracting increasingly more attention in the community of computer vision and intelligent vehicles.

This workshop aims at getting researchers of parallel vision together and stimulating discussion on its utility in intelligent vehicles. The list of possible topics includes, but is not limited to:

- Computer graphics and virtual reality for traffic scene simulation
- Driving simulator to generate photorealistic virtual images
- Generative models related to virtual traffic images (generative adversarial networks, variational autoencoders, etc.)
- Neural networks that learn from virtual images
- Intelligent visual computing with virtual images
- Virtual and real world adaptation for vehicular vision
- Evaluation of vehicular vision systems using virtual images
- Applications of virtual images to intelligent vehicles

- **Important Dates**

Submission Deadline: January 31, 2018

Notification of paper acceptance: April 15, 2018

Final paper submission: April 25, 2018

When you submit your manuscript(s), please notice the code of this workshop is 319nv.

- **Organizers:**

- 1) Prof. Kunfeng Wang (Institute of Automation Chinese Academy of Sciences China and Qingdao Academy of Intelligent Industries China) [kunfeng.wang](mailto:kunfeng.wang@jia.ac.cn) ([aJia.ac.cn](mailto:kunfeng.wang@jia.ac.cn))
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- 3) Prof. David Vázquez (Autonomous University of Barcelona Spain) [lawav](mailto:lawav@jgmail.com) ([aJgmail.com](mailto:lawav@jgmail.com))
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