

CFP: Fourth Workshop on Computer Vision for Road Scene Understanding and Autonomous Driving

In conjunction with ECCV 2016

Analyzing road scenes using cameras could have a crucial impact in many domains, such as autonomous driving, advanced driver assistance systems (ADAS), personal navigation, mapping of large scale environments and road maintenance. For instance, vehicle infrastructure, signage, and rules of the road have been designed to be interpreted fully by visual inspection. As the field of computer vision becomes increasingly mature, practical solutions to many of these tasks are now within reach. Nonetheless, there still seems to exist a wide gap between what is needed by the automotive industry and what is currently possible using computer vision techniques.

The goal of this workshop is to allow researchers in the fields of road scene understanding and autonomous driving to present their progress and discuss novel ideas that will shape the future of this area. In particular, we would like this workshop to bridge the large gap between the community that develops novel theoretical approaches for road scene understanding and the community that builds working real-life systems performing in real-world conditions. For this 4th edition, we plan to have a broad panel of invited speakers covering different continents, as well as industry and academia. We also intend to host live demos from companies and research labs.

We encourage submissions of original and unpublished work in the area of vision-based road scene understanding. The topics of interest include (but are not limited to):

- Road scene understanding in emerging markets
- Prediction and modeling of road scenes and scenarios
- Semantic labeling, object detection and recognition in road scenes
- Dynamic 3D reconstruction, SLAM and ego-motion estimation
- Visual feature extraction, classification and tracking
- Design and development of robust and real-time architectures
- Use of emerging sensors (e.g., multispectral imagery, RGB-D, LIDAR and LADAR)
- Fusion of RGB imagery with other sensing modalities
- Interdisciplinary contributions across computer vision, optics, robotics and other related fields.

We encourage researchers to submit not only theoretical contributions, but also work more focused on applications. Each paper will receive 3 double blind reviews, which will be moderated by the workshop chairs.

Speakers / Demos

Dariu Gavrilă
Petros Kapsalas, Panasonic
Branislav Kisacanin, NVIDIA
Joakim Lin-Sörstedt, Volvo
Shanti Swarup, Uurmi Systems
Jesse Levinson, Zoox

Organizers

José Alvarez, NICTA
Mathieu Salzmann, EPFL
Lars Petersson, NICTA
Fredrik Kahl, Chalmers

Important dates

Submission: July 8
Acceptance: July 21
Camera-ready: July 25
Workshop: October
(exact date TBD)