Urban 3D Semantic Modelling Using Stereo Vision

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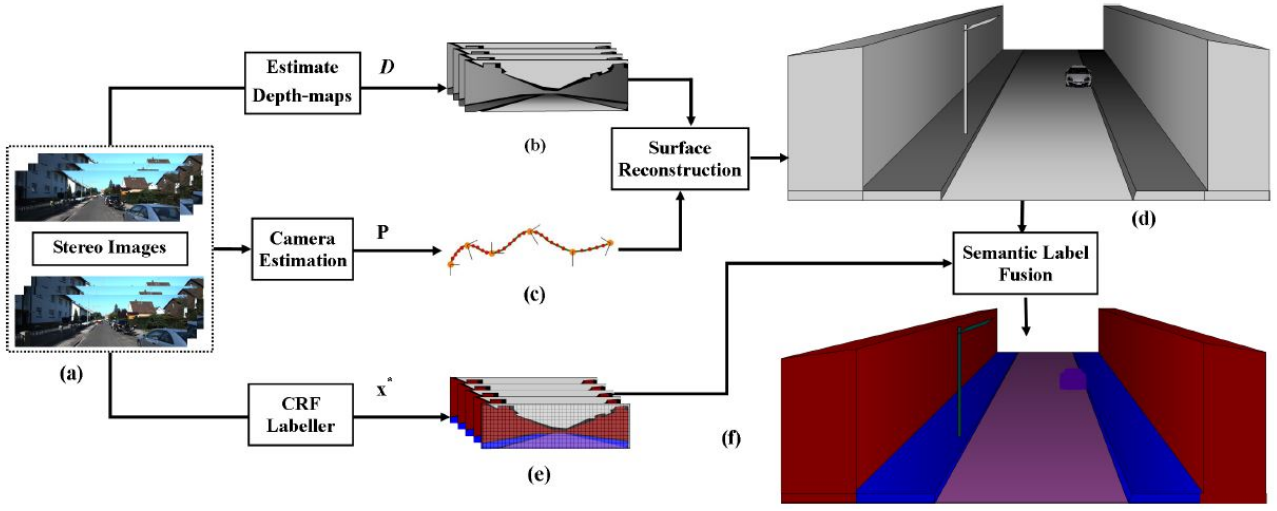

- Efficient and accurate dense 3D reconstruction with associated semantic labellings from street level stereo image pairs
- Using a robust visual odometry method with effective feature matching
- Depth-maps, generated from stereo, are fused into a global 3D volume online
- Labelling of street level images using a CRF exploiting stereo images
- Label estimates are aggregated to annotate the 3D volume
- Evaluation on KITTI odometry dataset with manual annotation for object class segmentation