

# Multi-Cue Onboard Pedestrian Detection

## Supplemental Material

The supplemental material consists of two video files comparing the detection performance on the two sequences *ETH-02* and *ETH-03*. For *ETH-02* we compare our detector with HOG and IMHwd, using HIKSVM as the classifier (left) with the system of Ess et al. [1] (right). For *ETH-03* we compare our detector, again with HOG and IMHwd but using MPLBoost (using  $K = 3$ ) as the classifier (left) with the system of Ess et al. [1] (right).

The ETH System on the right in particular has problems with small scale pedestrians. Also double detections occur.

- The threshold for both detectors was set to obtain a recall of 40% for pedestrians that are at least 70 pixels high.
- The minimum detection size that is shown is 48 pixels.
- Yellow rectangles show true positive detections.
- Red rectangles show false positive detections.
- Double detections were counted as false positives.
- For matching detections and ground truth we use the PASCAL overlap criterion [2] which demands an overlap of at least 50% for true positives.

## Movie Codec

The videos are encoded with the *XviD* codec. If you cannot play the videos, please make sure to get the corresponding codec.

The codec is available for Windows and Mac OS at <http://www.xvidmovies.com/codec/>.

VLC (<http://www.videolan.org/vlc/>) and mplayer should support *XviD* out-of-the-box on their supported operating systems (including Linux).

## References

- [1] A. Ess, B. Leibe, and L. V. Gool. Depth and appearance for mobile scene analysis. In *ICCV*, 2007.
- [2] M. Everingham, A. Zisserman, C. K. I. Williams, L. van Gool, M. Allan, C. M. Bishop, O. Chapelle, N. Dalal, T. Deselaers, G. Dorko, S. Duffner, J. Eichhorn, J. D. R. Farquhar, M. Fritz, C. Garcia, T. Griffiths, F. Jurie, D. Keyers, M. Koskela, J. Laaksonen, D. Larlus, B. Leibe, H. Meng, H. Ney, B. Schiele, C. Schmid, E. Seemann, J. Shawe-Taylor, A. Storkey, S. Szedmak, B. Triggs, I. Ulusoy, V. Viitaniemi, and J. Zhang. The 2005 pascal visual object classes challenge. volume 3944 of *LNAI*, pages 117–176, Southampton, UK, 11/04/2005 2006. Springer, Springer.