TEC2011-25995 EventVideo (2012-2014)

Strategies for Object Segmentation, Detection and Tracking in Complex Environments for Event Detection in Video Surveillance and Monitoring

D5.4v2

EVENTVIDEO RESULTS REPORT

Video Processing and Understanding Lab

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CHANGE LOG

Version	Date	Editor	Description
0.0	20/06/2012	José M. Martinez	Initial version
1.0	29/06/2012	José M. Martínez	Version 1
2.0	29/12/2012	José M. Martínez	Version 2

CONTENTS:

1. Introduction

This *report* recapitulates the results obtained within the EventVideo project. The results are disseminated both at the Web site (http://www-vpu.eps.uam.es/eventvideo) and via the eVi Newsletters.

The EventVideo project started officially January 2012, nevertheless the Video Processing and Understanding Lab (VPULab) has been working during part of 2011 in the research lines proposed in the project. Therefore the project started to produce related results even before the project official start.

1.1. Document structure

This document contains the following chapters:

- Chapter 1: Introduction to this document

- Chapter 2: Publications

- Chapter 3: Content Sets

- Chapter 4: Project Documents

- Chapter 5: Workshops and Seminars

2. Publications

2.1. Journals

1. Juan C. SanMiguel, José M. Martínez, **"Use of feedback strategies in the detection of events for video surveillance"**, IET Computer Vision, 5(5):309-319, Sep. 2011. (DOI 10.1049/iet-cvi.2010.0047)

2. Álvaro García-Martín, José M. Martínez, Jesús Bescós, "**A corpus for benchmarking of people detection algorithms"**, Pattern Recognition Letters, 33(2):152-156, Jan. 2012. (DOI 10.1016/j.patrec.2011.09.038)

3. Juan Carlos San Miguel, Luis Caro, José M. Martínez, "**Pixel-based colour contrast for abandoned and stolen object discrimination in video surveillance"**, IET Electronic Letters, 48(2):86-87, Jan. 2012. (DOI 10.1049/el.2011.3160)

4. Juan Carlos San Miguel, Andrea Cavallaro, José M. Martínez, **"Adaptive on-line performance evaluation of video trackers"**, IEEE Transactions on Image Processing 21(5):2812-2823, May 2012. (DOI 10.1109/TIP.2011.2182520)

5. Álvaro García-Martín, José M. Martínez, **"On collaborative people detection and tracking in complex scenarios"**, Image and Vision Computing, 30(4-5):345-354, May 2012, Elsevier, ISSN 0262-8856. (DOI 10.1016/j.imavis.2012.03.005).

6. Juan Carlos San Miguel, José M. Martínez, **"A semantic-based probabilistic approach for real-time video event recognition"**, Computer Vision and Image Understanding, 116(9):937-952, September 2012, Elsevier, ISSN 1077-3142. (DOI 10.1016/j.cviu.2012.04.005).

7. Juan Carlos San Miguel, José M. Martínez, **"A semantic-guided and self-configurable framework for video analysis"**, Machine Vision and Applications (Online Dec. 2011). (DOI 10.1007/s00138-011-0397-x)

2.2. Conferences

1. Juan Carlos San Miguel, Andrea Cavallaro, José M. Martinez, "Standalone evaluation of deterministic videotracking", en Proc. of 2012 IEEE International Conference on Image Processing, ICIP 2012, Orlando, E.E.U.U., 30 September-3 October 2012, pp.1353-1356

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2. Álvaro García-Martín, Andrea Cavallaro, José M. Martinez, "People-background segmentation with unequal error cost", en Proc. of 2012 IEEE International Conference on Image Processing, ICIP 2012, Orlando, E.E.U.U., 30 September-3 Octtober 2012, pp. 157-160

2.3. Masther thesis

1. **Evaluación comparativa de algoritmos de seguimiento de objetos (Comparative evaluation of object tracking algorithms)**, Mónica Lozano Cruz (tutor: Juan C. San Miguel, ponente: José M. Martínez), Proyecto Fin de Carrera (Master Thesis), Escuela Politécnica Superior, Univ. Autónoma de Madrid, Feb. 2012.

2. **Generación de fondo de escena en secuencias de video-seguridad (Background generation in video-surveillance sequences)**, Alberto Muñoz García (tutor: Juan C. San Miguel, ponente: José M. Martínez), Proyecto Fin de Carrera (Master Thesis), Escuela Politécnica Superior, Univ. Autónoma de Madrid, Sep. 2012.

3. **Detección de robo/abandono de objetos en interiores utilizando cámaras de profundidad (Indoor stolen/abandoned object detection using depth cameras)**, Fabricio A. Córdova Lucero (tutor: Juan C. San Miguel, ponente: José M. Martínez), Proyecto Fin de Carrera (Master Thesis), Escuela Politécnica Superior, Univ. Autónoma de Madrid, Dec. 2012.

4. **Análisis de interacciones y actividades en entornos controlados (Analysis of interactions and activities in controlled environments)**, Sergio Suja Garrido (tutor: Juan C. San Miguel, ponente: José M. Martínez), Proyecto Fin de Carrera (Master Thesis), Escuela Politécnica Superior, Univ. Autónoma de Madrid, Dec. 2012.

3. Content Sets

1. Abandoned and Stolen Object Discrimination dataset - ASODds (http://www-vpu.eps.uam.es/DS/ASODds/)
2. Event Detection dataset - EDds (http://www-vpu.eps.uam.es/DS/EDds/)
3. Person Detection dataset - PDds (http://www-vpu.eps.uam.es/DS/PDds/)

4. Project Documents

4.1. Deliverables

D1.1v1 – System Infrastructure (public) – June 2012
D1.2v1 – DiVA Documentation (public) – June 2012
D5.3v1 – EventVideo Test Sequences, Groud-truth and Evalauation Methodology (public) – June 2012
D5.4v1 – EventVideo Results Report (public) – June 2012
D5.4v2 – EventVideo Results Report (public) – December 2012

4.2. Technical Reports

5.   Workshops and Seminars