# MobiNetVideo Newsletters

## #2 – December 2018

TEC2017-88169-R MobiNetVideo (2018-2020)

Visual Analysis for Practical Deployment of Cooperative Mobile Camera Networks

http://www-vpu.eps.uam.es/MobiNetVideo/

## New Registered Observer: Vaelsys

Vaelsys joined as Registered Observer in October 2018. Vaelsys is a Spanish company devoted mainly intelligent video analysis. Vaelsys mission is to allow businesses from diverse sectors to take advantage of the opportunities offered by the wealth of data generated daily by video cameras.

The two pillars of Vaelsys are commitment to R+D and collaboration. Our business has several registered patents, scientific publications and the European Union Seal of Excellence. We have participated in half a dozen R+D projects leading the computer vision activities and we are currently collaborating with leading manufacturers of cameras and video recorders, cutting-edge sensorization technology businesses as well as global software developers.

Every day Vaelsys systems process over a million hours of video, submitting the relevant information to the right people at the right time. Our solutions have been implemented with all types of clients, in cities, state security and law enforcement agencies, supermarkets, power plants, shopping centres and telecommunications companies. The applications of video intelligence are endless.

## Fourth trimester progress report

During this last trimester of the first year of the project, whilst the research activities have been progressing properly, the reporting has been rescheduled as there was not enough material. Deliverables D1.1 “System Infrastructure” version 1, D1.2 “Camera simulation” version 1, and D1.3 “Evaluation datasets” version 1, scheduled for December 2018, have been delayed. Additionally, D5 “Results Report” version 1, after being rescheduled earlier to September 2018, has been cancelled and will be published June 2019.

## Fourth trimester results

### Conferences

Zhu P. et al., "VisDrone-VDT2018: The Vision Meets Drone Video Detection and Tracking Challenge Results", in Computer Vision – ECCV 2018 Workshops. ECCV 2018, L. Leal-Taixé, S. Roth (eds.) Lecture Notes in Computer Science, Vol. 11133. Springer, Cham, 2019, pp. 496-518. (ISBN 978-3-030-11020-8) (DOI 10.1007/978-3-030-11021-5_29)

**Abstract:** Drones equipped with cameras have been fast deployed to a wide range of applications, such as agriculture, aerial photography, fast delivery, and surveillance. As the core steps in those applications, video object detection and tracking attracts much research effort in recent years. However, the current video object detection and tracking algorithms are not usually optimal for dealing with video sequences captured by drones, due to various challenges, such as viewpoint change and scales. To promote and track the development of the detection and tracking algorithms with drones, we organized the Vision Meets Drone Video Detection and Tracking (VisDrone-VDT2018) challenge, which is a subtrack of the Vision Meets Drone 2018 challenge workshop in conjunction with the 15th European Conference on Computer Vision (ECCV 2018). Specifically, this workshop challenge consists of two tasks, (1) video object detection, and (2) multi-object tracking. We present a large-scale video object detection and tracking dataset, which consists of 79 video clips with about 1.5 million annotated bounding boxes in 33, 366 frames. We also provide rich annotations, including object categories, occlusion, and truncation ratios for better data usage. Being the largest such dataset ever published, the challenge enables extensive evaluation, investigation and tracking the progress of object detection and tracking algorithms on the drone platform. We present the evaluation protocol of the VisDrone-VDT2018 challenge and the results of the algorithms on the benchmark dataset, which are publicly available on the challenge website: http://www.aiskyeye.com/. We hope the challenge largely boost the research and development in related fields.

The MobiNetVideo (TEC2017-88169-R) project is supported by

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