

ICPR20 COMPETITION

on

Superimposed text detection and recognition in Arabic news video frames

Scientific objectives

After the success of the two first editions of the “Arabic Text in Videos Competition AcTiVComp”, we are proposing to organize a more challenging third edition in conjunction with the 25th International Conference on Pattern Recognition (ICPR’20). The main objective is to contribute in the evolution of the Video Optical Character Recognition (Video-OCR) research area.

Dataset

AcTiV dataset is used in this competition to train / evaluate the participating methods. It:

- Contains 189 video sequences, 2,557 key frames and 10,415 cropped text images.
- Was collected from 4 Arabic news TV in 3 different stream-resolutions.
- Includes texts with unknown font and scale, various colours, different degrees of background complexity and low resolution.
- Includes 2 annotated datasets: AcTiV-D (detection) and AcTiV-R (recognition).



Tasks

- [Text detection in Arabic news video frames](#), where the objective is to obtain an estimation of the text regions in a video frame, in terms of bounding boxes $\langle x, y, w, h \rangle$.
- [Text recognition in cropped news images](#): taking a textline image as input, the objective of this task is to generate the corresponding text transcriptions.
- [End-to-End](#) represents the main novelty of this edition where all textlines in a given frame should be localized and recognized in a single step. For this purpose, we provide the participants with a new version of the AcTiV dataset with a different format of ground-truth files.

Evaluation

In this edition as in the former ones, we adopt the same metrics used in several ICPR and ICDAR competitions.

- For the detection task, we use the well known *precision*, *recall* and *F-measure* criterion taking into account all types of matching cases between the ground-truth bounding boxes and the output ones.
- For the recognition task, we use the Line Recognition Rate (LRR), the Word Recognition Rate (WRR) and the Character Recognition Rate (CRR) metrics that are based on the computation of insertion, deletion and substitution errors at the character level.

More information about the data and evaluation are available on the [contest website](#).

Note: Publicly available external data is permitted in the training step. When used, the source and amount of such data should be mentioned in the final short descriptions of the participating methods.

Registration / Submission

1. Register your interest by writing to oussama.zayene@hefr.ch. The email subject should include [ICPR 2020: AcTiVComp]. Please add in the core of email your affiliation, contact details and indicate the task(s) of interest.
2. Once registered, you will receive a download link for the dataset(s).
3. Submit your final results.
4. Submit your executable binary file or source code (link) that will be run on a private test-set in our premises to further analyse the method and provide insight to the authors (**Optional but highly recommended**).

Important Dates

- **March 04:** Registration open
- **March 07:** Train set available (participants run methods on training/validation data)
- **July 01:** Test set available
- **July 18:** Submission of final results and executables / source codes
- **July 19:** Submission of participating methods' description
- **September 13-15:** Announcement of results at ICPR2020.

Organizers

- **Oussama Zayene**, ICoSyS, HESO//Fribourg, Switzerland
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