

Projet 19 – New labs for the Computer Vision module

Related specialties: IMARO, SIP

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Description

In the current Computer Vision module (that you followed in the 1st semester) there are only 2 labs:

- one about camera calibration and pose computation
- one about feature tracking in a video

The lab instructor usually has to add one or two (typically Hough transform) but we would like to create proper new labs for the aspects of the lectures that are not dealt with yet.

Depending on the motivation of the students, these new labs may deal with:

- detection methods: lines, contours, template, color
- deep learning with a known library (Caffe, TensorFlow)
- any other aspect of the CV lecture that you find interesting

Creating a new lab can be composed in 3 steps:

1. program the full solution that is ultimately expected from the students
2. remove the parts that are to be done by students (this leads to code with holes)
3. write the lab subject to detail the expected work

Environment

Labs are to be create within the classical environment: Ubuntu, OpenCV, C++, ViSP library

Intended uses of the results

The results will be used to create new labs for the M1 next year.