European Master in Software Engineering

FEATURE EXTRACTION IN IMAGES

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Outline

In this seminar we will review the current state of the art in basic features and algorithms that are used for describing images. These descriptors can be, from basic mathematical features for describing regions of images or even an entire image, to more advanced algorithms for creating a fingerprint of an image based in some key points selected from the original image. Implementation of feature extraction algorithms present in openCV will be reviewed.

Syllabus

1. Basic feature extraction of images
2. Basic feature extraction of image regions
3. Feature detection and description algorithms using keypoints
4. OpenCV implementation of feature detection and matching algorithms: FAST, ORB, SIFT, SURF

Assessment Method

Participation in the class plus an individual practical programming example developed using openCV.

Prerequisites

Basic programming skills (Python, C, .Net or Java) and use of external libraries.

Credits

0.5 ECTS

Remarks

Participants could bring a laptop for starting practical exercise

For last minute information, consult the document.

Timetable

- 12 April, 15.00 - 17.00

Web site:

https://www.dropbox.com/s/cwlk8gif4gaag2n/image_descriptor_seminar.zip?dl=0

Lecture Theatre
**Tuition Language**

English.

**Capacity:**

50

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