

LivDet2017 Competition Call for Participation

The Department of Electrical and Electronic Engineering of the University of Cagliari is proud to announce the fifth edition of the Fingerprint Liveness Detection Competition - Algorithms Part.

The widespread use of personal verification systems based on fingerprints has shown some security issues. Among the others, it is well-known that a fingerprint verification system can be deceived by submitting artificial reproductions of fingerprints made up of silicon or gelatine to the electronic capture device (optical, capacitive, etc...). These images are then processed as "true" fingerprints. These are known as spoofing or presentation attacks.

Therefore, a recent issue in the field of security in fingerprint verification (unsupervised especially) is known as "liveness detection" or "presentation Attacks detection". As in the previous edition of LivDet, the problem is treated as a two-class classification problem (live or fake). An appropriate classifier is designed in order to extract the probability of the image vitality given the extracted set of features.

The LivDet2017 competition is open to all academic and industrial institutions which have a solution for software-based fingerprint vitality detection problem. Each participant is invited to submit its algorithm in a Win32 console application. The performance will be evaluated by utilizing a very large data set of "fake" and "live" fingerprint images captured by three devices. The performance rank will be compiled and published in this site. The goal of the competition is to compare different methodologies for software-based fingerprint liveness detection with a common experimental protocol and data set. The ambition of the competition is to become the reference event for academic and industrial research.

The competition is not defined as an official system for quality certification of the proposed solutions, but may impact the state of the art in this crucial field, with reference to the general problem of security in biometric systems.

For this edition, Algorithms and Systems sections have separate deadlines and website. Deadline and website for the Systems section will be available soon.

IMPORTANT DATES for the Algorithms Part

Deadlines:

Registration by September 15, 2017

Algorithm submission by October 15, 2017

Competition conclusion and winners proclaiming by December 15, 2017

The training-set will be made available to registered users after the registration deadline.

Further information can be found in the Livdet webiste:

<http://livdet.diee.unica.it>

Please do not esitate to contact us for any question.

Gian Luca Marcialis

Team leader of the LivDet staff