

**University of Cagliari**



From: **University of Cagliari,** Department of Electrical and Electronic Engineering and

**Clarkson University,** Department of Electrical and Computer Engineering

Subject: Database access for images used in the **Fingerprint Liveness Detection Competitions 2009, 2011, 2013, 2015**

# Welcome!

**Following receipt of this document, you will receive a separate email with access instructions to our Cloud Storage. This email will give you access to the dataset for 14 days.**

## LivDet 2009

Training Datasets Directory:

**BiometrikaTrain.zip**; 90 MB, 520 live images, 520 silicone images; Its naming convention is like this example: M\_N\_[1/2].tiff, where M is the finger id, N is the acquisition number (20 acquisition of each finger), [1/2]: 1 for image at 0 second, and 2 for image at 5 second.

**CrossmatchTrain.zip**; 160 MB, 500 live folders, 500 spoof folders (gelatin, PlayDoh, silicone), each folder has 2 time-series images (0s.bmp, 2s.bmp). It contains four category folders (Alive, Gelatin, PlayDoh, Silicone) and under each category there is a set of folders for all the subjects/visits named:

-1234567\_R1\_1 (where 1234567 is the id #, R1 is the right thumb finger and 1 is the ‘visit’).

**IdentixTrain.zip**; 322 MB, 375 live folders, 375 spoof folders (gelatin, PlayDoh, silicone), each folder has 2 time-series images (0s.tif, 2s.tif). The naming convention is same as the above CrossMatch.

Testing Datasets Directory:

**BiometrikaTest.zip**; 246 MB, 1473 live images, 1480 silicone images; Its naming convention is like this example: M\_N\_[1/2].tiff, where M is the finger id, N is the acquisition number (20 acquisitions of each finger), [1/2]: 1 for image at 0 second, and 2 for image at 5 second.

**CrossmatchTest.zip**; 476 MB, 1500 live folders, 1500 spoof folders (gelatin, PlayDoh, silicone), each folder has 2 time-series images (0s.bmp, 2s.bmp). It contains four category folders (Alive, Gelatin, PlayDoh, Silicone) and under each category there is a set of folders for all the subjects/visits named:

-1234567\_R1\_1 (where 1234567 is the id #, R1 is the right thumb finger and 1 is the ‘visit’).

**IdentixTest.zip**; 1,013 MB, 1125 live folders, 1125 spoof folders (gelatin, PlayDoh, silicone), each folder has 2 time-series images (0s.tif, 2s.tif). The naming convention is same as the above CrossMatch.

## LivDet 2011

Training Datasets Directory:

**BiometrikaTrain.zip**; 244 MB, 1000 live images, 200 EcoFlex images, 200 gelatin images, 200 latex images, 200 silgum images, and 200 wood glue images. Its naming convention is like this example: M\_N.png, where M is the finger id, N is the acquisition number (5 acquisitions of each live finger and 10 acquisitions of each spoof finger).

**DigitalTrain.zip**; 244 MB, 1004 live images, 200 gelatin images, 200 latex images, 200 PlayDoh images, 200 silicone images, and 200 wood glue images. Its naming convention is like this example: (SubjectID)\_(TimeStamp)\_(FingerNumber)\_(AcquisitionNumber)\_(FG#)\_01\_01.bmp.

**ItaldataTrain.zip**; 271 MB, 1000 live images, 200 EcoFlex images, 200 gelatin images, 200 latex images, 200 silgum images, and 200 wood glue images. Its naming convention is like this example: M\_N.png, where M is the finger id, N is the acquisition number (5 acquisitions of each live finger and 10 acquisitions of each spoof finger).

**SagemTrain.zip**; 190 MB, 1008 live images, 200 gelatin images, 201 latex images, 200 PlayDoh images, 200 silicone images, and 200 wood glue images. Its naming convention is like this example: (SubjectID)\_(TimeStamp)\_(Enroll/Auth)\_(FingerNumber)\_(AcquisitionNumber)\_(FG#)\_01\_(M aterial).bmp.

Testing Datasets Directory:

**BiometrikaTest.zip**; 243 MB, 1000 live images, 200 EcoFlex images, 200 gelatin images, 200 latex images, 200 silgum images, and 200 wood glue images. Its naming convention is like this example: M\_N.png, where M is the finger id, N is the acquisition number (5 acquisitions of each live finger and 10 acquisitions of each spoof finger).

**DigitalTest.zip**; 244 MB, 1000 live images, 200 gelatin images, 200 latex images, 200 PlayDoh images, 200 silicone images, and 200 wood glue images. Its naming convention is like this example: (SubjectID)\_(TimeStamp)\_(FingerNumber)\_(AcquisitionNumber)\_(FG#)\_01\_01.bmp.

**ItaldataTest.zip**; 273 MB, 1000 live images, 200 EcoFlex images, 200 gelatin images, 200 latex images, 200 silgum images, and 200 wood glue images. Its naming convention is like this example: M\_N.png, where M is the finger id, N is the acquisition number (5 acquisitions of each live finger and 10 acquisitions of each spoof finger).

**SagemTest.zip**; 189 MB, 1000 live images, 225 gelatin images, 204 latex images, 205 PlayDoh images, 200 silicone images, and 202 wood glue images. Its naming convention is like this example: (SubjectID)\_(TimeStamp)\_(Enroll/Auth)\_(FingerNumber)\_(AcquisitionNumber)\_(FG#)\_01\_(M aterial).bmp.

## LivDet2013

Training Datasets Directory:

**BiometrikaTrain.zip**; 243 MB, 1000 live images, 200 Ecoflex images, 200 gelatin images, 200 latex images, 200 modasil images, 200 wood glue images. Its naming convention is like this example: 031TamLidxBmk.png (SubjectID)(acquisition\_mode)(hand)(finger)Bmk.png. Acquisition mode: T (normal), Tam (add moist), Twf (wipe finger), Thp (high pressure), Tlp (low pressure); hand: R (right), L (left); finger: thb (thumb), idx (index), mdl (middle), rng (ring), ltl (little).

**CrossMatchTrain.zip**; 144 MB, 1250 live images, 250 Body Double images, 250 latex images, 250 PlayDoh images, and 250 wood glue images. Its naming convention is like this example: (SubjectID)\_(FingerNumber)\_(AcquisitionNumber).bmp.

**ItaldataTrain.zip**; 247 MB, 1000 live images, 200 Ecoflex images, 200 gelatin images, 200 latex images, 200 Modasil images, and 200 wood glue images. Its naming convention is like this example: 031TamLidxItd.png (SubjectID)(acquisition\_mode)(hand)(finger)Itd.png. Acquisition mode: T (normal), Tam (add moist), Twf (wipe finger), Thp (high pressure), Tlp (low pressure); hand: R (right), L (left); finger: thb (thumb), idx (index), mdl (middle), rng (ring), ltl (little).

**SwipeTrain.zip**; 364 MB, 1221 live images, 200 Body Double images, 200 latex images, 233 PlayDoh images, and 246 wood glue images. Its naming convention is like this example: (SubjectID)\_(FingerNumber)\_(AcquisitionNumber).bmp.

Testing Datasets Directory:

**BiometrikaTest.zip**; 247 MB, 1000 live images, 200 Ecoflex images, 200 gelatin images, 200 latex images, 200 modasil images, 200 wood glue images. Its naming convention is like this example: 031TamLidxBmk.png (SubjectID)(acquisition\_mode)(hand)(finger)Bmk.png. Acquisition mode: T (normal), Tam (add moist), Twf (wipe finger), Thp (high pressure), Tlp (low pressure); hand: R (right), L (left); finger: thb (thumb), idx (index), mdl (middle), rng (ring), ltl (little).

**CrossMatchTest.zip**; 123 MB, 1250 live images, 250 Body Double images, 250 latex images, 250 PlayDoh images, and 250 wood glue images. Its naming convention is like this example: (SubjectID)\_(FingerNumber)\_(AcquisitionNumber).bmp.

**ItaldataTest.zip**; 253 MB, 1000 live images, 200 Ecoflex images, 200 gelatin images, 200 latex images, 200 Modasil images, and 200 wood glue images. Its naming convention is like this example: 031TamLidxItd.png (SubjectID)(acquisition\_mode)(hand)(finger)Itd.png. Acquisition mode: T (normal), Tam (add moist), Twf (wipe finger), Thp (high pressure), Tlp

(low pressure); hand: R (right), L (left); finger: thb (thumb), idx (index), mdl (middle), rng (ring), ltl (little).

**SwipeTest.zip**; 427 MB, 1153 live images, 250 Body Double images, 250 latex images, 250 PlayDoh images, and 250 wood glue images. Its naming convention is like this example: (SubjectID)\_(FingerNumber)\_(AcquisitionNumber).bmp.

## LivDet2015

Training Datasets Directory:

**Digital\_persona.zip**; 595.5 MB, 1000 live images, 250 Ecoflex images, 250 gelatin images, 250 latex images and 250 wood glue images.

**CrossMatchTrain.zip**; 231.7 MB, 1500 live images, 500 Body Double images, 500 Ecoflex images and 500 PlayDoh images.

**GreenBit.zip**; 135.4 MB, 1000 live images, 250 Ecoflex images, 250 gelatin images, 250 latex images and 250 wood glue images.

**Hi\_Scan.zip**; 411.8 MB, 1000 live images, 250 gelatin images, 250 latex images and 250 wood glue images.

**Time\_series.zip**; 547.6 MB, 4440 live images, 1481 Body Double images, 1529 Ecoflex images, 1485 PlayDoh images.

Testing Datasets Directory:

**Digital\_persona.zip**; 177.2 MB, 1000 live images, 250 Ecoflex images, 250 gelatin images, 250 latex images, 250 wood glue images, 250 Liquid Ecoflex images and 250 RVT images.

**CrossMatchTrain.zip**; 223.1 MB, 1500 live images, 300 Body Double images, 270 Ecoflex images, 281 PlayDoh images, 297 OOMOO images and 300 getalin images.

**GreenBit.zip**; 173.8MB, 1000 live images, 250 Ecoflex images, 250 gelatin images, 250 latex images, 250 liquid Ecoflex images, 250 wood glue images and 250 RVT images.

**Hi\_Scan.zip**; 523.6 MB, 1000 live images, 250 Ecoflex images, 250 gelatin images, 250 latex images, 250 liquid Ecoflex images, 250 wood glue images and 250 RVT images.

Thank you! If you have any questions in regard to accessing the dataset, please contact Dr. Stephanie Schuckers at Clarkson University**,** [**sschucke@clarkson.edu**](mailto:sschucke@clarkson.edu)**, or Keivan Bahmani bahmank@clarkson.edu**