
The Hong Kong Polytechnic University (PolyU) Palmprint Database (The Second Version)

Overview

While it is regarded as a relatively new field, palmprint recognition is a necessary complement to the existing biometric technologies. Unlike hand geometry, which measures hand-size and finger-length, palmprint focuses on the inner surface of a hand, its pattern of lines and the shape of its surface. In some ways, palmprints are similar to fingerprints, in that a palm is covered with the same kind of skin, yet a palm provides a much larger recognizable surface than a fingertip.

Until now, there has not been a standard/commercial device available to capture palmprint images. Various research groups have tried to collect palmprint data using scanners, digital cameras and even inked image. However, there has been a great disparity between the palmprints captured by those devices and their quality has been far from satisfaction. The Biometric Research Centre (UGC/CRC) at The Hong Kong Polytechnic University has developed a real time palmprint capture device, and has used it to construct a large-scale palmprint database. To advance research and to provide researchers working in the area of palmprint recognition with an opportunity to compare the effectiveness of palmprint recognition algorithms, we intend to publish our palmprint database, making it freely available for academic, noncommercial uses.

Description of the PolyU Palmprint Database

The PolyU Palmprint Database contains 7752 grayscale images corresponding to 386 different palms in BMP image format. Around twenty samples from each of these palms were collected in two sessions, where around 10 samples were captured in the first session and the second session, respectively. The average interval between the first and the second collection was two months. The palmprint images in the database are labeled as "PolyU_xxx_L_NN.bmp", where the "xxx" is the unique palm identifier (range from 001 to 386), "L" is the index of the first or the second session ('F' indicates the first session while 'S' indicates the second session) and "NN" is the index of each palm (range from 1 to 17).

The Announcement of the Copyright

All rights of the PolyU Palmprint Database are reserved. The database is only available for research and noncommercial purposes. Commercial distribution or any act related to commercial use of this database is strictly prohibited. All public work based on the PolyU Palmprint Database should clearly and prominently carry the following acknowledgement:

"Portions of the work tested on the PolyU Palmprint Database."

A citation to "PolyU Palmprint Database" must also be added in the references, <http://www.comp.polyu.edu.hk/~biometrics/>. A soft copy of any released or public documents that use the PolyU Palmprint Database must be forwarded immediately to:

biometrics@comp.polyu.edu.hk

Downloading Steps

This PolyU Palmprint Database is made publicly available and can be obtained from our website. It is totally free for academic, noncommercial purposes. Any person or organization that wishes to use the database must agree to the terms of the agreement and fill in the agreement forms. The request confirmation will be sent by an email and the successful applicants will receive their login accounts and passwords to download the database.

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