

3.22 Face recognition library and awarded ISV technology

Keywords

Face recognition library

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Corporate Sponsorship Program

See Section 4 of the present document

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Software disclosure 9141

Functional description

The Face Recognition Library (FaceRecLib) is designed to perform a fair comparison of face recognition algorithms. It contains scripts to execute various kinds of face recognition experiments on a variety of facial image databases, and running baseline algorithms.

Innovative aspects

The library contains interfaces to many publicly available facial image databases, and default evaluation protocols. Default implementations of face recognition algorithms, which rely on BOB, are provided, e.g., for: Eigenfaces, Linear Discriminant Analysis, Probabilistic Linear Discriminant Analysis (PLDA), Local Gabor Binary Pattern Histogram Sequences, Gabor Graph Matching, Gaussian Mixture Modeling, Inter-Session Variability Modeling (ISV), and the Bayesian Intrapersonal/Extrapersonal Classifier.

Commercial application examples

- Biometrics-enabled identity management systems (Automated Border Control, Access Control, ...)
- Multi-factor authentication security systems (Critical Infrastructures, e-Banking, ...)
- Forensic Science, Video surveillance, Entertainment, Robotics, Man-Machine interaction

More information

M. Günther, R. Wallace and S. Marcel: “An Open Source Framework for Standardized Comparisons of Face Recognition Algorithms”, ECCV – Workshops and Demonstrations, 2012. http://publications.idiap.ch/downloads/papers/2012/Gunther_BEFIT2012_2012.pdf

C. McCool, R. Wallace, M. McLaren, L. El Shafey and S. Marcel: “Session variability modelling for face authentication”, IET Biometrics, 2013, 2, (3), pp. 117–129. <http://publications.idiap.ch/index.php/publications/show/2606> **IET Biometrics Premium Award 2015**

Software & IPR status

Open sourced at <https://pypi.python.org/pypi/bob.bio.face> but re-licensing possible for commercial purposes.