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[dstl]



Licensing Opportunity

Automated Biometric Identity Management System.

Overview:

Biometric data is of growing importance for law enforcement, and immigration control, and in recent years the number of sources of biometric data has increased – documents are now supported by fingerprints, eye scans, face recognition and more. Different types of biometric data are obtained by different law enforcement agencies and will naturally be stored together, however as the number of sources of data increases, the risk of any mistakes greatly increases – a common example being if a fingerprint is recorded using the wrong finger, or an error is made performing automatic face recognition. Any mistakes can be costly both in missed law enforcement opportunities and even more so if it leads to incorrect accusations of unlawful behaviour.

Key Benefits:

The main objective of the Automated Identification Management System (AIMS) is to improve the management of Biometric Information Records (BIRs) through:

- providing a single platform for handling/viewing multiple type (modalities) of biometric data, and the grouping of records to generate biometric identities;
- identification and correction of imposter records associated with a biometric identity;
- resolution of incorrectly labelled biometrics (an example being the right index finger incorrectly labelled the left thumb and so forth).

AIMS will utilise multi-modal biometric matching to automatically process its database (quantifying the likelihood of biometric matches between BIRs). At present, AIMS works with three biometric modalities; fingerprint, iris, and face. The modular design of the system allows other modalities, such as voice or Deoxyribonucleic acid (DNA) to also be added in the future.

Applications:

AIMS was developed by Dstl for use in large multi-modal biometric databases, with the goal of double-checking that records have not been combined in error, and identifying errors. It identifies which were undetectable when the records were added, by taking advantage of additional information added since then. This is especially valuable in very large databases where many types of biometric data have been added from many sources at different times.

IP Status:

AIMS is a body of Crown Copyrighted software, which relies on using various 3rd party modules such as commercially available biometric matching algorithms and open source software libraries. The 3rd party content is excluded from intellectual property available to be licenced from Dstl, and the licensee should obtain and add the 3rd content themselves.

Commercial Opportunity:

AIMS is available to be licenced under the Easy Access IP Scheme, primarily in exchange for a satisfactory commitment to investing in developing and exploiting it. The licence would be free of charge since AIMS is not patented. This would enable the licensee to use it or build on it to develop a large scale biometric database error-checking solution. Dstl will also consider requests to use AIMS to produce commercial software for licencing to 3rd parties as well as requests for development of academic software.

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