Abstract

Multi biometric systems exploit different biometric traits, multiple samples and multiple algorithms to establish the identity of an individual. Over any single biometric system, they have the advantage of increasing the population coverage, offering user choice, making biometric authentication systems more reliable and resilient to spoofing, and most importantly, improving the authentication performance.

**Introduction**

Multi modal Bio metric system is external manufacturing constraints in sensing technologies as well as inherent limitations within each biometric, It is

100% authentication accuracy and usage by itself. For example, even the most advanced Face or fingerprint recognition system has yet to be shown foolproof and can be applied to all users.

The situation can nevertheless be improved or alleviated through a combination of multiple biometric sources and methods. This combination of multiple biometric methods or modalities is commonly referred to as multimodal biometrics fusion and such a system is often

Called a multibiometric system.

Establishing the identity of a person is becoming critical in

our vastly interconnected society. Questions like ―Is he/she

real world, now a days it should be very Common And Very important.

The need for reliable user authentication techniques has increased in the wake of highlighted face with fingerprint.

**SYSTEM REQUIEMENT SPECIFICATION**

Requirement analysis in system engineering and software engineering willEncompasses those tasks that go into determining the needs or conditions to meet for a new or altered product, taking into account the possibly conflicting requirements of the various stakeholders, analysing, documenting, validating and managing software or system requirements. Requirements analysis is critical to the success of a systems or software or hardware project. The requirements should be documented, actionable, measurable, testable, traceable, related to identify business needs or opportunities, and defined to a level of detail sufficient for system design.

**HARDWARE REQUIREMENTS**

* 1GB RAM
* 7GB Hard Disk
* 32 or 64 bit processor
* Any integrated graphical processor

Laptop/Desktop PC consist minimum of 7GB, it is a measurement of how much physical memory is installed in your machine. System should have 32 or 64 bit processor and any integrated graphical processor are good.

**SOFTWARE REQUIREMENTS**

* Operating System: Windows 10 or above/Linux
* Language: MATLAB
* IDE : Any compatible MATLAB software.

Advantages And Disadvantages of using Multi-Modal Biometrics

Advantages

The benefits of multi biometrics system from the complementarily (diversity) of the component experts. It is generally true that some experts perform better than others and the adopted fusion strategy should reflect the reliability of

each opinion. However, the term reliability has many aspects which are often not distinguished. In consequence, any counter measures adopted may not be as effective as expected.

Disadvantages

Biometrics namely photo face or image, and fingerprint. The results of face score are more accurate than other biometrics. The multimodal biometric systems can be improved by enhancing matching algorithms, integration of multiple sensors, analysis of the scalability of biometric systems,

followed by research on scalability improvements and quality

measures to assist decision making in matching process