

Continuous Verification Using Multiple Biometrics

Terence Sim, Sandeep Kumar, Janakiraman Rajkumar, Zhang Sheng

Motivation

In a high risk environment, we need a system that can verify the identity of the user **continuously**.

Our Approach

We use passive biometrics (face and fingerprint) to do continuous verification.



Key Features

- 1. Holistic Integration
 - A Dynamic Bayesian Network is used to combine biometric observations over time and across modalities.
- 2. Flexible Architecture
 - Asynchronous and distributed modality verifiers. Hence easier to plug in additional modalities.
- 3. Low Computational Overhead
 - CPU overhead: 5 to 10%.
- 4. Integration with Operating System
 - Slow down/stop user processes.







