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An Improved Process for Fingerprint Acquisition and Recognition

Automated biometric sensors enhance fingerprint acquisition accuracy by optimizing the quality of the scanned image based on biological characteristics like applied pressure.

The oldest biometric trait that has been used for over 100 years is the fingerprint. The process of using fingerprints as identity authentication has evolved significantly over the past century from acquiring the image through an ink pad and paper to scanning the fingerprint digitally. The computer revolutionized how fingerprints are stored and used to authenticate identity; however, the drawback of using computers to digitally process fingerprints is that computers are not 100 percent accurate. One factor that compromises the accuracy is the process of scanning the image, which can be effected by many variables such as occupation, age, and contact.

Purdue University researchers have developed a novel process for fingerprint acquisition that maximizes the quality of the fingerprint image. Automated biometric sensors are used to establish or authenticate the identity of a person based on their biological characteristics, such as the amount of the individual applies to a fingerprint sensor, to improve the acquisition process.

Advantages:

-Optimizes the quality of a scanned fingerprint image

Potential Applications:

-Computer Technology

-Information Technology

-Image Processing

TRL: 3

Intellectual Property:

Technology ID
65047

Category
Artificial Intelligence & Machine Learning/Computer Vision & Image Recognition
Robotics & Automation/Perception & Sensing

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View online

Provisional-Patent, 2008-02-29, United States | Utility Patent, 2009-03-02, United States | CON-Patent, N/A, United States

Keywords: Biometric authentication, fingerprint acquisition, digital scanning, automated biometric sensors, identity authentication, image processing, computer technology, information technology, fingerprint quality, identity verification