

lighting” and “random- In a random environment, however, there is more variation.” It can be used in areas like

- Identify card counters in casinos.
- It is applied as a tool for screening individuals to see if they are already known to the system.
- It is used for fraud prevention when individuals apply for visas or driver’s licenses.

5.5 DNA

Deoxyribonucleic Acid (DNA) is the one-dimensional ultimate unique code for a person’s identity with the exception of identical sibling sets (twins/triplets), which have identical DNA patterns. DNA is currently used mostly in forensics applications for identifying people.

5.6 Keystroke

One potentially useful application is computer access, where this biometric could be used to verify the computer user’s identity continuously. Dynamic or ongoing monitoring of the interaction of users while accessing highly restricted documents or executing tasks in environments where the user must be “alert” at all times (for example, air traffic control) is an ideal scenario for the application of a keystroke authentication system.

- Key-stroke dynamics may be used to detect uncharacteristic typing rhythms such as those brought on by drowsiness, fatigue, etc., and alarm a third party.

5.7 Signature

Despite its user friendliness, long history, and lack of invasiveness, signature verification has not become a market leader like other biometric technologies. Some documented applications include

- Chase Manhattan Bank, the first known bank to adopt signature verification technology.
- IRS for verification purposes in tax returns that have been filed online.
- Charles Schwab & Company for new client applications.
- Most likely, the biggest market application for signature verification will be in document verification and authorization.

5.8 Voice

Although speaker verification technology has not been as widely adopted and utilized as other biometric technologies, there are indications that speaker verification could be adopted on a larger scale in the future. The voice recognition biometric systems are used in

- For access control.
- Banking.
- Government offices, Entertainment applications.
- Smart cards, PIN and other Security purposes.

6. Conclusion

The biometric systems overcomes the drawbacks of the traditional computer based security systems. The biometric

recognition systems have been proved to be accurate and very effective in various applications. The biometric features can be easily acquired and measured for the processing only in the presence of a person. Many business applications such as fingerprint-based systems have been proven to be very effective in protecting information and resources in public sector units and offices. The use of biometrics raises several privacy questions such as in case of face recognition technology privacy will be wiped out. In spite of all these, it is quite sure that in future biometric based recognition will have a great influence on our daily routine and business.

References

- [1] Joseph Lewis, University of Maryland, Bowie State University, “Biometrics for secure Identity Verification: Trends and Developments” January 2002. (journal style)
- [2] Lia Ma, Yunhong Wang, Tieniu Tan, “Iris Recognition Based on Multichannel Gabor Filtering”, ACCV2002: The 5th Asian Conference on Computer Vision, 23-25 January 2002, Melbourne, Australia. (journal style)
- [3] Muhammad Khurram Khan, Jiashu Zhang and Shi-Jinn Horng, “An Effective Iris Recognition System for Identification of Humans”, IEEE 2004. (journal style)
- [4] S. Prabhakar, S. Pankanti, A. K. Jain, "Biometric Recognition: Security and Privacy Concerns", IEEE Security & Privacy, March/April 2003, pp. 33-42. (journal style)
- [5] K P Tripathi, International Journal of Computer Applications (0975 –8887) Volume 14–No.5, January 2011. (journal style)
- [6] D. Maio, D. Maltoni, R. Cappelli, J. L. Wayman, A. K. Jain, "FVC2002: Fingerprint verification competition" in Proc. Int. Conf. Pattern Recognition (ICPR), Quebec City, QC, Canada, August 2002, pp. 744-747. (journal style)
- [7] J. Daugman, "How Iris Recognition Works", IEEE Trans. on Circuits and Systems for Video Technology, Vol. 14, No. 1, pp. 21-30, January 2004. (journal style)
- [8] Steve Lawrence C. Lee Giles Ah Chung Tsoi, Andrew D. Back, “Face Recognition: A Convolutional Neural Network Approach”, IEEE Transactions on Neural Networks, Special Issue on Neural Networks and Pattern Recognition. (journal style)
- [9] Schuckers, 2001] Michael E. Schuckers, "Some Statistical Aspects of Biometric Identification Device Performance", 2001. (journal style)
- [10] Biometric technology application manual, volume : (I), Biometric Basics compiled by: National Biometric Security Project Updated Summer 2008.(e-book chapter style)

Author Profile



Shilpa Shrivastava Student of M.Tech (Information Security) from Disha Institute of Management and Technology. She has received the Bachelors of engineering degree in (Information Technology) from Shri Shankara Charya Institute of Professional Management and Technology in 2013.