Fingerprint login system

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## **What is Fingerprint scanning**

It’s a proven fact that no finger printer in the world is the same, a finger print scanning a security method that uses bio metrics, finger print sample to give users access to something,phone,buildings etc . After a sample is taken, access to a computer or other system is granted if the fingerprint matches the stored sample. Laptops increasingly have built-in readers. For more security, a PIN may be used in addition to the fingerprint sample. Fingerprint scanners can also be used to identify and account if an employee arrives or leaves work

## **Standpoints of fingerprint log in**

## **Technical**

fingerprint-based systems can save money on hardware and material cost, unlike papers which would have to be bought constantly in which would affect the companies budget. Fingerprint scanning systems tend to consist of simple fingerprint reader and software that identifies the individual. Most upgrades to the system come in the form of software-based upgrades, which comes occasionally, and that also reduces cost further. With fingerprint systems, you don’t have to worry about reprogramming badges, assigning employees passcodes or maintaining inventory.

## **Economic**

Using fingerprint log ins can have its ways on improving the economy. Fingerprint log ins don’t make use of paper of any other disposable items, this can lower littering and pollution. Fingerprint scanners can also clock time efficiently, unlike the need of using paper sign up sheets to keep track of time manually, fingerprints can save employee time, reduce staffing overhead and provides an accurate picture of labour data to the payroll department efficiently. this helps to effectively manage the overall business operations and will lead to an increase in productivity, which can satisfy customers.

## **Operational**

Fingerprint scanning systems verify a person’s identity to ensure they have permission to access a secure area or to confirm when an employee arrives or leaves work. Since time theft can cost the company a large amount of money, using a fingerprint security. when a fingerprint login operate , it first needs to go through a process of enrolment where it learns about the employee’s biometric features then stores the biometric data, so when an employee enters an area or signs in his/her arrival or departure in the company, the scanner verifies the employee’s biometric feature and compare it with the ones it stored, to see if the employee is cleared to enter or leave

Most security systems have a higher risk of branches caused by employee error. Someone can take advantage of a badge carelessly left behind to access a forbidden area, or a skilled worker area if he/she left his/her work badge at home. Fingerprint-based systems provide additional security, since criminals can’t easily fake a fingerprint, fingerprints can’t get misplaced and employees cant forget to bring their fingerprint to work.

## **Functional and non-functional requirement**

### **Functional specification of the system**

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| Hardware | Specification |
| PC | * Hard disk 80GB Minimum * Processor 3.2 GHz Minimum. Preferable core i3 and above * RAM 4.0 GB * Graphics frequency 3.30 MHz * 64-bit Operating System |
| Fingerprint scanner | * Image resolution 500 pixel per inch * Image area 9.75mm X 0.401mm/192 X 8 pixel * ISO/IEC 7816 T=0 and T=1 * Up to 8Mhz smart cards, and a 412 Kbit/s communication speed |
| Digital Camera | * 18.0 Megapixels * 18-55mm lenses * Speed 3frs * Full-high definition |

**Biometric diagram**