International Journal for Research in Engineering Application & Management (IJREAM)
ISSN : 2454-9150 Vol-03, Issue-10, Jan 2018

Searching New Assets with Biometrics

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Abstract - In today's world, security is the main concern to be taken care as the data is being increasing; more the data breaching is taking place. Biometry literally means "measurement of life". In a broader sense, it designates the quantitative study of living beings. The term biometrics also refers to all processes used to recognize, authenticate and identify persons based on certain physical or behavioral characteristics. Biometric technology has abundant and paramount use in now and later. Biometrics makes use of some measurable characteristics in order to label and describe individuals. In order to provide authentication to every individual, biometric has to look everyone is unique and the individual can be identified by its intrinsic physical and behavioral traits. In this paper, we have discussed about the technology of biometrics, various types of biometrics, and applications of biometrics technology.

Keywords: Security, Biometric technology, authentication, applications of biometrics technology.

I. INTRODUCTION

Biometric is basically used to identify individuals in groups that are under surveillance. In this, biometrics is the distinctive, measurable characteristics used to label and describe individuals. In order to provide authentication to every individual, biometric has to look everyone is unique and the individual can be identified by its intrinsic physical and behavioral traits. Biometrics refers to metrics related to human characteristics. Biometrics is used as an identification and access control. Biometrics are unique to individual, the biometrics are trust worthy in identity than taken and knowledge based methods. It raises privacy concerns about the ultimate use of this information.

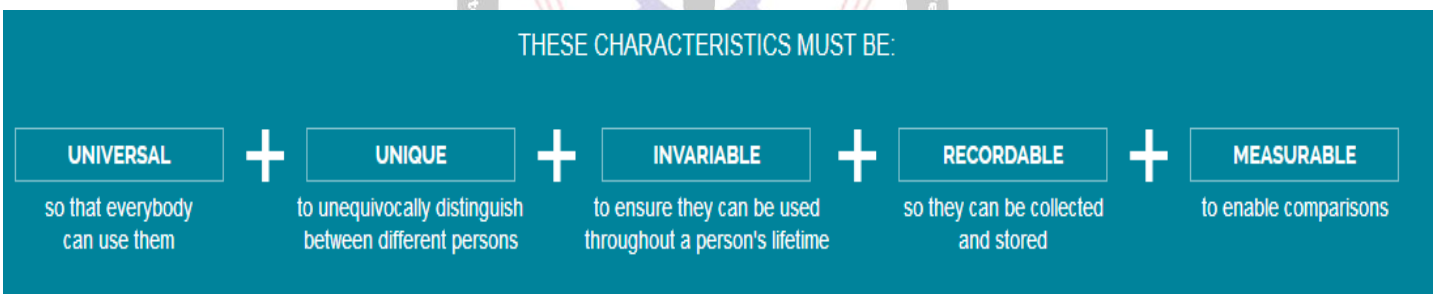

Fig. 1Characteristics of Biometrics

II. TYPES OF BIOMETRICS

1. DNA Matching: -The identification of a person using DNA approach. It could be face, eyes (Retina), ear matching.

2. OLFACTORY Biometric: -The use of smelling power i.e. odoursto determine the identity of a person.

3. GAIT BIOMETRICS: - Biometrics also examines the way an individual walks or style body patterns to determine identity.

4. SPATIAL Biometrics: - It refers to features of hand in space organization for identifying an individual.

5. Vein Recognition: - It is a type of biometrics that is used to identify individual according to the vein pattern in the human hand.

6. Anditory Biometrics: - It is task of determining an unknown speaker's identity.

III. Why Do We Use Biometric Authentication?

The fast-growing number of connected devices (smartphones, tablets, etc.) goes hand in hand with the increasingly critical nature of the applications and content we can find on them. Times have changed, and we live in a world where mobility

 DOI : 10.18231/2454-9150.2018.0007

reigns. However, the typical uses and security behaviors that worked at home on a PC are more difficult to apply on the move, where passwords have reached their limits. But, more than ever, we still have to protect our data, transactions and our identity. Biometrics is one answer: a simple wave of the hand, pressing a finger on a scanner, or looking at a camera for a second is enough to authenticate our identity.

Biometrics facilities the life of users who are increasingly mobile and connected, offering a simple alternative authentication solution to the traditional password and PIN.

IV. APPLICATIONS OF BIOMETRICS TECHNOLOGY

a) Mobile Payment: -This payment is the future of the financial transaction they needs to adopt the best provided security features for achieving better cost efficiency and avoiding threats in between the payments . It utilizes combination of the users fingerprint via communication technology in their smart phones, this allows authenticated payments of goods and services. This will provide more security and convenience in making mobile payments.

b) Healthcare and Welfare: - Many factors fueling the growth urgent need to tackle is the rising instance of the administrative efficiency in healthcare. Biometrics overcomes the challenges of fraud and helps on getting accurate and accurate and authorized records of a patient.

c) Multifactor Authentication: - Only passwords are prone to loss and theft. A full three factor authentication will enable enterprise to combine password, a device identifier along with the most important factor i.e. unique fingerprint or face. This will give excellent benefits to the user.

d) Internet of Things (IOT): - IOT represents machine to machine and machine to sensor communications in order to gather and use the data. It provides the security and reliability that manufacturer and enterprise required for IOT. It can be used in wide variety of applications ranging from automotive, smart homes, baking, healthcare etc.

e) Wearable Devices: - These devices are worn on the clothes and it allows new features such as head mounted or smart watches do that the impact increases but the factors authentication are increases and threat decreases so that the people set benefited from it. Wearable devices are worn on the body. They are used for making and/or accessing payments. Biometrics becomes endless when combines with wearable.

V. CONCLUSION

In today's society, advances in technology have provided us higher levels of technical knowledge through the invention of different devices and thus made our life easier. In today's World, security is the main concern to be taken care as the data is being increasing; more the data breaching is taking place. Biometric technology has abundant and paramount use in now and later. Biometric requires just the input of the human characteristics to be measured. Biometric system should implicitly suggest the uses how they are to be interacted with. This area has a wide range research options ranging from deep scientific questions about the nature of individuality to technical and engineering challenges. Biometrics is an analyzing very large amount of data.

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