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Biometric System have changed the way we do security these days, with technologies like fingerprint recognition commonly used for access to high security areas such as those involved in high-level government security.

Biometrics is a form of access control. It is a method, which is used for recognizing humans based on one or more intrinsic physical or behavioral traits. It may also be used to establish the identity of individuals in groups that are under surveillance.

The two main classes of biometric characteristics are mentioned as under:

1. Behavioral: As the name suggests, they are related to the behavior of a person. For instance, an individual's typing rhythm, gait and voice.

2. Physiological: They are related to the shape and structure of the body. Examples are face recognition, fingerprint, DNA, hand and palm geometry and body odor.

Face recognition system is one of the physiological biometrics, which is used as one of the additional and mass security measure. It's a computer program or an application which identifies a person from a digital image or a video frame from a source.

When facial recognition systems is used as part of a biometrics security undertaking, subjects allow several pictures of themselves to be taken, with different facial expressions and at different angles. This method of identification is accurate, and is becoming even more accurate as the hardware and software improves, and the technology is used by more and more people, and improvements are made

1. Facial recognition systems often require the person to smile or blink, or produce another human movement, in order to prevent against imposters who might wear a mould or mask from trying to gain access, or impersonate somebody else.

2. Official documents such as a passport or driving license can utilize face recognition technology, in order to prevent against all sorts of criminal activity stemming from the production and use of false documents. The use of multiple documents by the same person will also be reduced.

3. Facial recognition can be used for many other applications, such as authorizing transactions, perhaps instead of using a PIN number or signature.

4. Physical access can be granted or denied to a building, or department, using face recognition technology rather than by using a traditional access code, or swipe card.

5. Time and attendance systems are another obvious choice to use face recognition systems, as a way to combat people either clocking in or out early or late, or clocking in or out for an absent colleague.

Object tracking is the process of locating a moving object (or multiple objects) over time using a camera. It has a variety of uses, some of which are: human-computer interaction, security and surveillance, video communication and compression, augmented reality, traffic control, medical imaging and video editing. Object tracking system can be a time consuming process due to the

amount of data that is contained in video. Adding further to the complexity is the possible need to use object recognition techniques for tracking.

Object tracking systems, at its basic, is taking a video into a digital format (or converting analog video to digital), and having a computer process the image. This is similar to video motion detection, but more complex as you will see. The computer can look at objects, events, colors, light levels, anything in the video image that could be classified as an "object". Object tracking is the ability of computers to track that object in the video. Think of a man walking in from of a camera, then walks out of the picture to the left. From watching the video, you know what happened, but with digital object tracking, a computer tracks the objects and can make certain assumptions without you looking at the video. Through object tracking system, we see how tracking system follows a person as they move into a certain area, which trigger certain events depending on the person's movements. First we have a guest entrance for "ToonLand", with a "firearms" sensor that can sense when people walk through a checkpoint with a gun.

An Internet protocol video camera (IP Video Surveillance), or IP camera, is a type of digital video camera commonly employed for surveillance, and which unlike analog closed circuit television (CCTV) cameras can send and receive data via a computer network and the Internet. Although most cameras that do this are webcams, the term "IP camera" or "net cam" is usually applied only to those used for surveillance.

Today's security systems utilize CCTV security cameras that utilize Internet protocol technologies. IP video surveillance systems have better resolution than traditional analog systems do, more flexible installation, and easier to use features.

It can be expensive to completely replace old analog systems with new IP-based ones, but fortunately, you don't have to. You can integrate analog systems with new IP technology by utilizing a hybrid platform. This gives you all of the benefits of the newer technology and is a more cost effective option as compared to completely "starting over" with new equipment. Youâ€™ll find significant advantages:

ïƒ˜ In expensive, easy to set up and maintain

ïƒ˜ Continuous recording from all cameras

ïƒ˜ Customizable

ïƒ˜ Commercial Security Surveillance

â€¢ Monitoring inventory

â€¢ Supervising staff to ensure appropriate employee behavior

â€¢ Providing security for parking lots

â€¢ Watching over the cash register

â€¢ Providing additional protection for staff

â€¢ Observe childcare staff

â€¢ Supervise child play from another room

â€¢ Monitor sleeping children

â€¢ Watch the house when you're away

Some More Significance of IP-based video surveillance

ïƒ¼ IP-based recording means instant transmittal of images anywhere in the world

ïƒ¼ Can monitor multiple cameras from one remote location

ïƒ¼ No decrease in recording quality over time or with repeated replays

ïƒ¼ Digital picture quality far superior to analog

ïƒ¼ IP-base recording is highly compressed for easier storage and can be transported over a variety of media

ïƒ¼ Digital images can be encrypted for security purposes

ïƒ¼ Updates and add-ons are relatively inexpensive through software packages and Internet computer networking

ïƒ¼ Adjustable frame rates

ïƒ¼ Remote or shared viewing may be done over the Internet or a wireless connection

ïƒ¼ Standard IP video compression techniques are used

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Lorenzo is working as a professional content writer for more than two years. Along with his profession, he has experience of working as a content manager in a styletext-decoration:noneFacial recognition in Australia. During his career, he wrote many knowledgeable articles on a styletext-decoration:noneIP video surveillance and many more. Hope his writing will be effective for you as well.

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