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Biometric Cc Cam for Identifying a Particular Object or Person Initially

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ABSTRACT
Biometrics is not novel to everyone. But we are eager to follow the features provided by biometrics for our security in offices and in any other security required areas. But we are not bothering about the nation security. Today the biometric cc cam is not completely available for our nation security. So we tried to propose a new concept in biometric cc cams to protect our nation. Biometric cc cam is used to trace capture all the pottages and they are stored in the database of control room. If any attacks occurred they will search for proofs at that stage. But we are proposing cc cam with an inbuilt chip which consists of the pottages of most wanted persons and it have the capability of ringing an alarm when any one of those persons whose information is pre stored with a chip. This alarm alerts whole area and also the control room. With this camera we can easily trace the terrorists and any wanted persons. These cams also have the capability of storing large amount pottages per second. If any squad want proves they will approach these cams pottages.
Key words: Biometrics, Chips, Data base, Pottages.

I. INTRODUCTION

CCTV cameras as we move around towns and cities, visit shops and offices, and travel on the road and other parts of the public transport network. The basic CCTV concept was started in the year 2000. Since then there have been advances in the way CCTV is used, the technology employed and the wider legal environment in which it operates. But the present versions of the CCTV's are not completely giving security to everyone in every place. I would like to take the privilege of introducing a new version of CCTV which works on the principle of biometrics which can identify any wanted person before happen any disaster. This is mainly useful for our nation security. Now a day's terrorist's attacks are increasing rapidly in India and after blasts specialists are searching for the clues. They will take few days to gather all the data regarding the blast in terms of picture and video potages. Its waste to gather pottages after disaster. So our technology with biometrics will avoid the blasts instantly.

The main motto behind creating the new version in CCTV is it can recognize the most wanted persons when they appear in that location and if he tries to attempt any blasts before his operation the police can take him into custody.

Usually a small micro chip will be inserted in human most wanted person's body when they are in seduction. Instead of that if any explosive items are sensed by the cam by using infrared rays which will be continuously released by CCTV an alarm alerts the surroundings and also in the control room. This is the case of the person's photo who is carrying explosive items is not in the chip inserted in CC cam which contains all the photos of the culprits.

Fig: 1.1 pin cell inserted in human body to trace person

This is RFID chip which locates the person and there are no distance limitations for this.

But using this is not completely providing security. Because it just locate the person but it can't trace the items which he is handling

II. WORKING

The working of the latest CC cam is as follows. Initially we gather all the photos of the terrorists who are in government control of we will scan the old or latest photographs of that person and those are all stored in a small micro chip. This micro chip will be inserted into the CC cam and that cam has provided an alarm. How the cam works is when the cam switched ON it starts comparing all the people who are at that location and it will take photographs of every person who is at that location and from that cam

continuous IR radiations are evolved out and these are at low frequency and they are just used for identifying blast exposures. If the person is new to that cam and if any exposures are recognized in that location it automatically rings an alarm at that location and also at police control room.

When the cam recognized any person at a time it rings alarm in both places. That is at that location and also at control room. This alerts the surrounding location police station and also the people. In control room they won't wait till the alarm rings. They will continuously monitor the locations and also the people faces.

There are huge numbers of systems which are connected to the number of CC cams and they will collect all potages in every location. If anyone found suspicious they will inform to the nearer police station to handle the case.

Fig: 2.1 control room monitoring system

CC cam capture 3lakh faces in that location. And all those are stored in control room database.

The CC cam can connect to DVR, TV, COMPUTER etc. it can directly transfer the photos to those systems.

The chip which is used for storing the photos is very tiny and it can easily inserted into the cam

Fig: 2.2 CC camera with high power lenses

Fig: 2.3 model of micro chip to be inserted

The above is the chip used for storing photos and inserted into the CC cam before fixing it any place. After installing it starts comparing the people who are passing over there and if any one matched then it rings alarm. If any weapons are recognized accept the police weapons then also it rings the bell. Then it automatically alerts the people over there.

It can trace and capture any number of persons at a time.

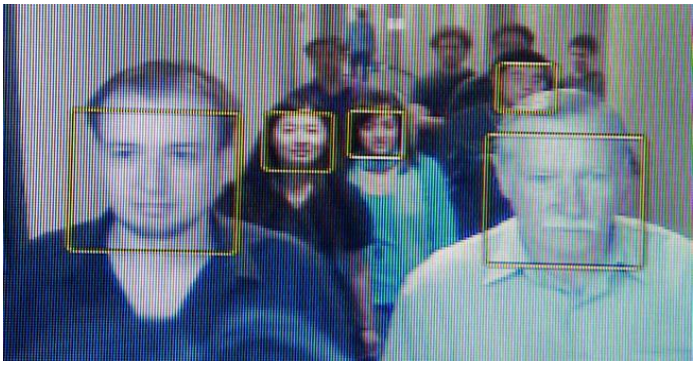

Fig: 2.4 scanning everyone using automatic scanner

For tracing a person from a group is also very easy by this technology.

Even though the wanted person is in the group this bi-metric cam can easily trace them and alerts in control room.

Fig: 2.5 A particular identification

III. EXISTING SYSTEM

Existing system works on the process of recording all the pottages and video clips in large number per second. As per the latest technical developments in the CC cams the latest one can capture up to 30,000 pictures per second. But it needs a large database and that data in data base can be used only when any blasts are occurred and if the clues team approached the control room for clues. Unless and until it happened there is no use of storing that many photos in database. We need a large infrastructure for that process.

Fig: 3.1 monitoring 3 to 4 cams at a time

Fig: 3.2 after happening any blast police gathering cam pottages.

The working principle of the existing system is as follows.

The cam fixed at any place for example if it fixed in front of your home it may connect to TV monitor, or DVR or to the computer. If it connected to computer that system must be keep POWER ON

Fig: 3.3 model of existed system

IV. PROPOSED SYSTEM

Our system recognizes the person when he appeared in that location using the chip. The chip consists of most wanted terrorists and criminals photographs and it needed to be inserted in to the cam. After fixing the cam in secret place even any new terrorists entered there whose photo is not in the chip it identifies him with infrared rays which are being scattered over there which are at low frequency and those are used for identifying the explosive items and weapons with anyone. If it traced any person in the police uniform with the weapons the person in the control room must check whether the traces person is really a police or morphed.

The working structure of proposed system is like this.

Fig: 4.1 model of proposed system

In the proposed system also the CC TV is connected to monitor of TV of computer but to that CC CAM a small alarm is integrated and when the scanning and comparing starts if anyone found then the alarm starts ringing.

V. ALGORITHRMIC APPROACH (EIGENFACE)

Algorithm is the most specified one to prove any theory. Related to our concept a small there is a small approach which can nearly explain our theory but not exact. "THE EIGENFACE" approach is that one. In this approach we will consider one picture of a criminal and we will try to compare it with all the pottages that we captured. But it is a time taking process, because we are sticking to one person and until the search is success our system will not be in our control. In this search we will maintain a space for the storage of the photographs instantly and if any person's identification is needed we will start the search.

In mathematical terms we have eigenvector. This is having a matrix set of images. Initially we have set of images in a matrix and each image is verified by the system using the different amount of variations in the faces.

Initially we have matrix set as follows.

fig: 5.1:eigen matrix of wanted photos

After starting recognition it will scan the photos one by one and they seemed to be a ghost pictures.

Fig: 5.2: while comparing the seemed like this.

For our approach of recognizing the faces this algorithm will be useful but extension is needed with the mapping technology that helps to fast comparison of pictures stored in space with the people who are passing over there.

VI. APPLICATIONS

The main applications of the biometric CC cams are in offices, hospitals, main roads, malls etc.

6.1 OFFICES

In companies they are used for recognizing the staff and it is also used to calculate their working hours and their attendance. This replaces the system of signing in the register and maintaining the list of late coming.

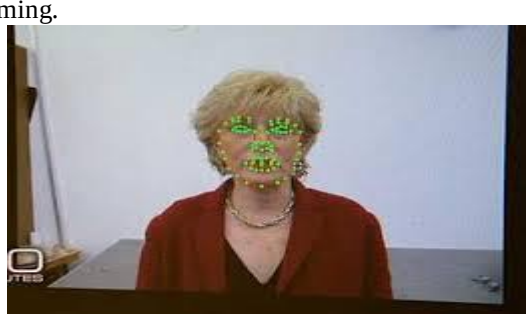

Fig: 6.1.1 staff authentication by face identification

6.2 HOSPITALS

Terrorists mainly attack in hospitals because there they can find large number of people and if they attacked anyone the people can't attack them in response.

Fig: 6.2.1 monitoring in hospital

This is the case of recording wanted person who is doing mischief in hospital.

6.3 SHOPPING MALLS

Shopping malls are the correct place to freeze any terrorist. Because most of the terrorists will target the malls and plan for blasts. So if we arrange there it might be useful stop the blasts.

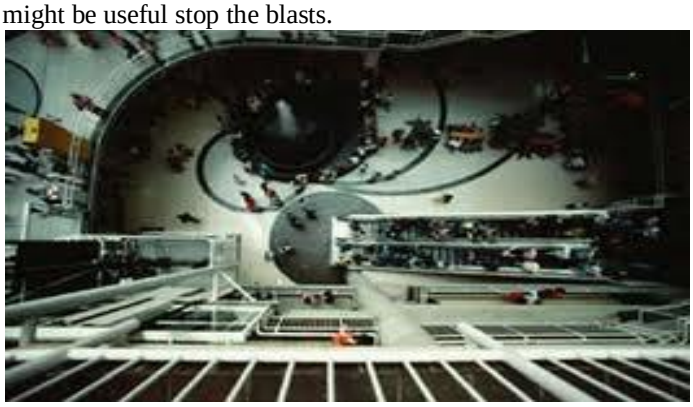

Fig: 6.3.1 monitoring shopping mall from top view

Cam can at least scan the items which the people are holding and alert the people if there is any suspicious.

Fig: 6.3.2 monitoring people at malls if they are carrying weapons

6.4 MAINROADS

Main roads are also plays a crucial role in capturing any terrorist. We can easily trace the person and can freeze him.

Fig: 6.4.1 monitoring anyone who is carrying weapons on road

The device which is used for detecting the locations with the people and also with the weapons

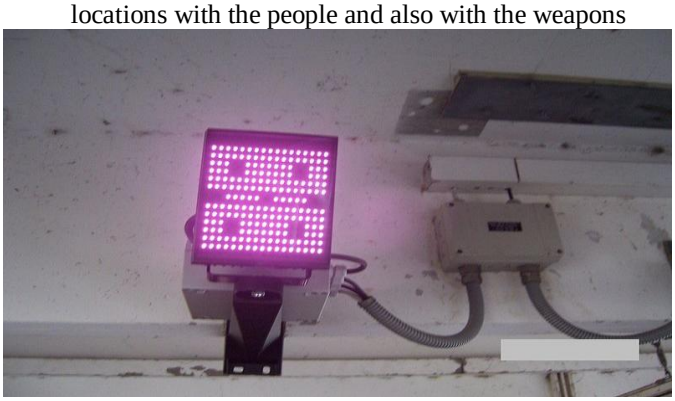

Fig: 6.4.2 IR device which monitors vehicles and weapons

The device is used to detect the location without any human sense. People in that location can't see those rays and they are also not harmful to humans.

VII. ADVANTAGES

The main advantages of this technology are

- Easily find the terrorists.
- Pre action can be possible.
- Can eradicate the blasts.
- Can protect common man.

VIII. DIS ADVANTAGES

- Large database is needed.
- Technology required cost is high.
- Person handling the system must understand the process going on.

IX. CONCLUSION

The utilizing of this technology is quite useful to the government also the common man to protect themselves from the unexpected disasters and can take pre action to stop any cases are found.

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