THE MISSING PERSONS FINDING SENSITIVE TO MOVEMENTS WITH IMAGE RECOGNITION SYSTEM AND NUMERIC DATA PEOPLE OF LOSS IN TURKEY

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Abstract: Lost children and adults in our country and in other countries that they are known by everyone to be a major social problem. According to the study, records from 12 April 2010 to 1 January 2006 Turkey were examined. During this review process, it was observed that a total of 29.223 recourses for missing children. Of these, 27.741 children are said to be found later. Children and young people are the future of the country and the main architect of assurance. In this study, the robot is designed to find missing persons. Thanks to the wireless camera on the robot, transmits images to the authorities in the outside world. Face images with previously saved from a computer face pictures of missing persons matched. If there is a match between the faces, the system automatically provides alerts to the authorities.

Keywords: Image recognition, Numeric data

Introduction

Children lost their today have become a major social problem. Whatever the way, where it is known by parents or legal representatives, made on children reported missing, is defined as lost a child (LC).The number of children disappears every day; we see that increase according to official data released by the police. For this young potential, appropriate environment should be provided. If the healthy development of our children socially supported, the progress of the country, the development and the increase of social welfare will be faster and easier. Any type of youth will directly contribute to the shaping of the future investment. As the number of positive role models in society, positive actions in the next younger generation, success and peace will grow exponentially (Anonymous, 2010).

The evaluation of children who were reported as missing in Turkey, General Directorate of Security, Gendarmerie General Command, considered by Turkey Statistics Institution, the statistics are utilized. Full on missing children, are difficulties in collecting accurate data about the world in general. Some of these countries have not reached all of the public record of birth, it cannot be determined exactly in the pediatric population. In addition, to the authorities of the child may be listed as missing in reporting deficiencies (Anonymous, 2010).

Robotics, to enter into interaction with the environment in which people and to have become inevitable. Yılmaz, N. et al. (2006) did in their project, which can communicate wirelessly over the WAN (Wide Area Network) and LAN (Local Area Network), traceable, have created a Web robot that can be controlled and can be reprogrammed. Similar studies on facial recognition before (Başak et al. 1998; Hjelmas & Low, 2001; Viola & Jones, 2004; Eleyan, 2010; Varol & Cebe, 2011) were made.

According to Region in Turkey Number of Lost Children

In the following Table 1, 2008 the number of children missing are analyzed according to regions. According to the ranking of the number of first place with 434 missing children LC is the Marmara region. After the Marmara region is followed by Central Anatolia Region, Southeastern Anatolia Region, the Black Sea Region, Aegean Region, the Eastern Anatolia Region and Mediterranean Region. It is believed that there is a region between the distinctive features in this regard (Anonymous, 2008).

Table 1: Rate Ranking of the Region Population Number of Missing Children (Anonymous, 2008).

Regions	Density Loss (LC Count/Population Ratio)	Number of Losses	Population	The Ratio of Total Population
Marmara	15,00	434	20.724.950	29%
Southeastern Anatolia	8,30	83	7.170.849	10%
Eastern Anatolia	6,50	52	5.694.582	8%
Black Sea	6,20	68	7.462.451	11%
Central Anatolia	5.70	92	11.327.675	16%
Aegean	4,30	56	9.299.322	13%
Mediterranean	3,70	48	8.906.427	13%

After about Loss recourse is made, the number of children located, in 2013, increased by 97.4% compared to 2009. In 2013, loss (found) children 39.6% male and 60.4% are girls (Anonymous, 2014).

Lost Children According to Gender Number in Turkey

Missing child information, which was filed on officially lost and brought to security units include children found by security units/citizens. The child finds information is lost children who made the recourses officially. In addition, children who are brought to the security unit was found by security units/citizens. The following Table 2, the number of missing children according to gender in 2011-2013 indicated (Anonymous, 2014-1).

Table 2: TÜİK – The distribution by gender of the children disappeared (Anonymous, 2014-1).

Year	Male	Famale	Total
2011	4.254	5.813	10.067
2012	4.885	7.589	12.474
2013	6.421	9.797	16.218
Total	15.560	23.199	38.759

Total Number of Lost Children in Turkey

In Turkey, about missing children by the Police General Directorate (PGD), records are kept since 1997.Lost children with recourse, 67.1% in the 15-19 age group, 28.8% in the 10-14 age group and 4.1% are known to be in the 0-9 age group. The following Table 3, the distribution of children according to years lost between 2006 and 2010 is shown (Anonymous, 2010). When viewed in Table 3, the age range can also see that the rate increases progressively lost child.

Table 3: The distribution of children who disappeared between 2006 and 2010, according to the PGD record (Anonymous, 2010).

Age Group of Child	Total Lost		Still Dialed		Has Been Found	
	Count	%	Count	%	Count	%
0-9 Year	1.208	4,1	87	5,8	1.121	4
10-14 Year	8.406	28,8	423	28,5	7.983	28,8
15-19 Year	19.609	67,1	972	65,5	18.637	67,2
Total	29.223	100,0	1.482	100,0	27.741	100,0

This lost child figures, it should be noted that only consists of those reported to the relevant government agencies. Families, unless notice to the concerned public units is not covered by these children lost child registration. Therefore, the actual figures could be much more than the specified number. When these numbers are considered, the number of missing persons is quite high.

Robot Findings Missing Peopler

When we look at the history of science, major scientific and technological growth after a long static periods are observed. We live in modern science and technology in the process, all the people and society has an important place robot concepts and applications that will change the life of many cases. Facial recognition algorithms can be divided into two parts as the overall structure. The first of them is the facial recognition technology via images; face recognition technology is a moving image on the other. These two technologies are used today in place tens. In these examples, many countries face in the use of screening and passport control to start the nationwide

Surveillance cameras as used in cameras that have made demonstrable Interpol facial recognition application (Torun et al. 2007). At passport control logic, matched with the biometric details of the person in the person's face is based on whether the same person in the transition to the next passport. A biometric characteristic of a person's face in defining these methods (for example distance between the nose and the mouth, eyes as the ratio of the width of the mouth of the distance from each other) is recorded in the system. After in the transitions compared old and new data just by looking at the camera.

Facial recognition algorithms operation steps are as follows:
- Such as a Web cam or traffic cameras, optical image from an input source.
- Picture educating, preparing for the receipt of sections rather than just taking the whole face.
- Comparison with the face in the database section by taking the face section.
- Repeating the steps from the image input in case of incompatibility (Varol & Cebe, 2011).

This study was designed a robot find missing persons. The robot makes discoveries by visiting the outside world. Robot, face the people he encountered during discovery, the center thanks to wireless camera transmits on. The purpose of the designed system, to reduce the number of lost finding missing children and material and moral adverse effects due to losses occurring in society to eliminate.

Pairing between facial images saved on the computer with the loss of facial images from the outside world is made. If there is pairing between the face, SMS and automatic voice warning is given to the authorities. Robot wireless camera transmits real-time images on the center.
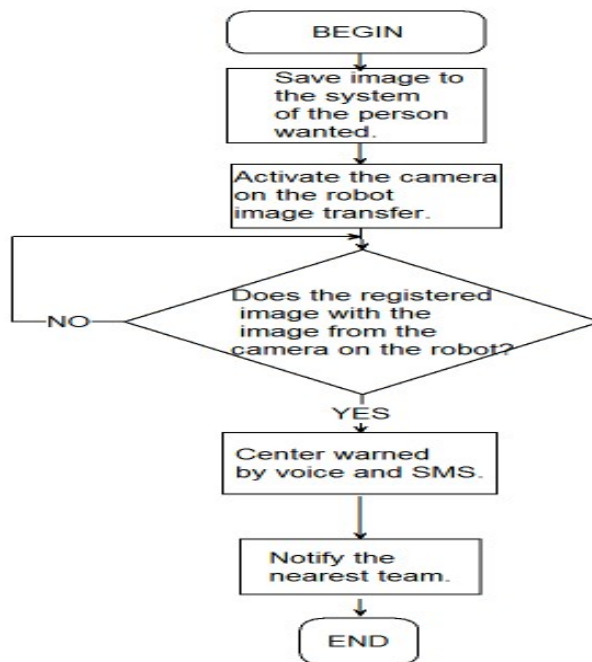
The flow diagram of designed system shown in Figure 1.

Figure 1. Flow Diagram System

In this way, the robot where to find the missing persons will have been seen. Where the missing person is found, it is reported to the nearest team. As a result, people would have been lost. System operation steps are as follows;

1) Missing person's face in the picture is saved to the computer center. Schematic of this process is shown in Figure 2.
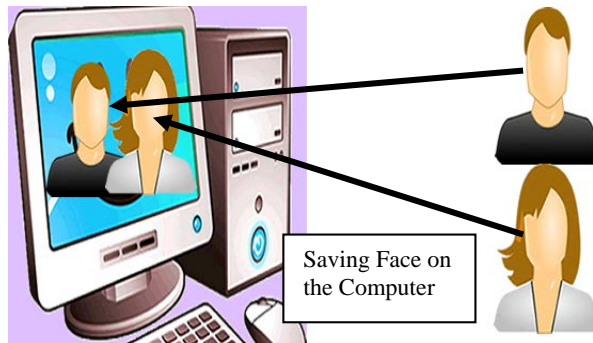

Figure 2. Registration Process

2) The robot starts to wander outside world. Schematic of this process is shown in Figure 3.
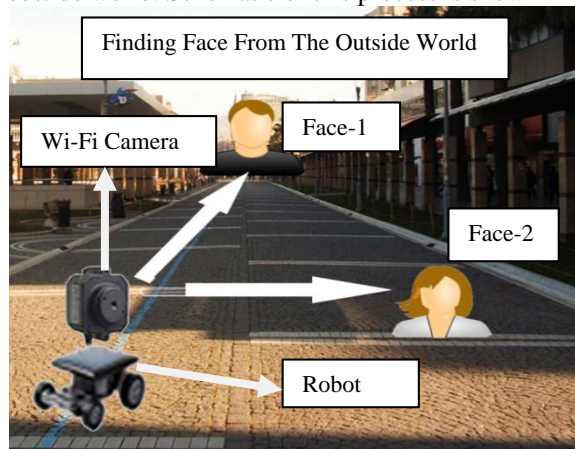

Figure 3. Discovery Process

3) Faces faced by the outside world, transmits center with the help of a wireless camera. Schematic of this process is shown in Figure 4.

Figure 4. Transferring Process

4) Faces incoming the center, matched with faces stored in the computer. Schematic of this process is shown in Figure 5.
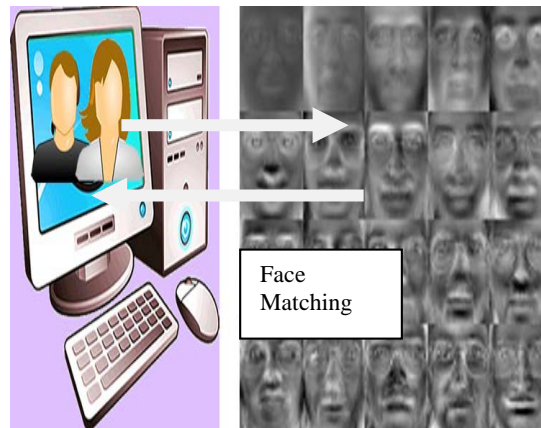

Figure 5. Matching Process

5) If matching system automatically to authorities sends alerts as SMS and voice. Schematic of this process is shown in Figure 6. The name of the person who has sent the SMS. Thus completes the process of finding missing persons.
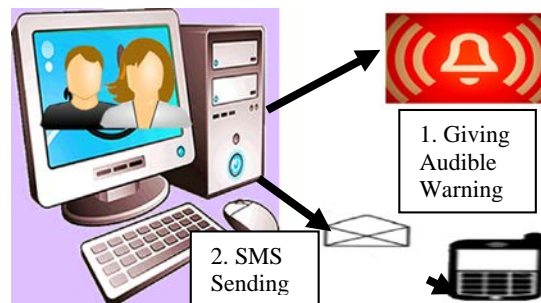

Figure 5. Warning Giving Process

Conclusions

Security General Directorate, "which disappears if you disappear from the environment, where it is known by parents or legal representatives and made about reported missing children" are traded on as a missing child. International data of missing children are reported to be mostly composed of women and girls trafficked for sexual exploitation outside the country's borders. In the national data, lost children of law enforcement officers is mainly to show the way in the search. The missing boy friends, family and social environment related features are not enough information about the factors that may be related to the loss of the child. Of data rather than electronically, collection and storage of printed media, integration of data, reporting and make it difficult to share.

The research covered in Turkey, within a selected representative sample of 1 January 2006-12 June 2010, it was reported that a total of 2455 children interviewed close. The children selected for the sample, in case the wanted group has reached 78.1%.In the groups have been found were reached 89%.

When adding the missing persons system, adding a few times from different angles, will provide the right people there more quickly. Otherwise, the system will alert with the presence of other persons. After the warning given, it is confirmed by looking at the computer screen of missing persons.

Discharge of the battery will not be known when the robot wandering outside world.

Through the robot designed this study cannot be reached and ever increasing missing persons, instant discovery process was carried out. In addition to reducing the number of losses is intended to eliminate the negative effects of the resulting material and moral society. After the discovery process can be known the whereabouts of missing persons.

Acknowledgements

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