

Virtual Shopping Software

Priti Kudal¹Sayali Kushare²Pranjal Borale³Kalyani Kangane⁴

Lecture Student, TYCO Student, TYCO Student, TYCO

Computer Engineering, Guru Gobind Singh Polytechnic (India)

ABSTRACT

Real time virtual dressing room is used in shops, Mall and any shopping center. Trying cloths in shopping center is actually a time consuming activity. Besides, it might not even be possible to try on clothes in such cases as online shopping. Our motivation is to increase time efficiency and improve the accessibility of clothes try on by creating virtual dressing room environment. Our aim is to build an interactive and highly realistic virtual machine on which the user can try cloths without wearing it actually.

Keywords—Euclidian distance, haar cascade, superimposition, virtual.

INTRODUCTION

Trying different cloths in store is very time consuming and tedious activity. It may also happen that after ordering the cloth from online shopping may not fit to the customer. So, Real time virtual shopping software is a concept where person buy clothes without wearing it actually. Recently, Virtual try-on of clothes from the given database has received too much attention due to its commercial potential. The detection of the user and the body parts is one of the main steps in creation of real time virtual shopping software system. Suppose a person goes in the shop for buying the clothes. Then he selects the cloths from the database of clothes and he captures his photo. By using this virtual shopping software, the customer can see his picture with selected dress model. Then he decides whether to buy cloth or not.

Lower body detection algorithm is used for extracting the lower body of the customer by creating the X and Y co-ordinates of the particular image with selected dress model and then it is displayed on the screen.



Fig. 1: Concept of Virtual Dressing

II.EXISTING SYSTEM

People use mirrors every day to see how they look and choose clothes they will put on for a day before leaving home. Also in clothing stores, many mirrors are located to help customers make their decision to buy garments fitting well and looking good. A lot of shoppers have encountered a lot of problems while shopping at a high-end place for readymade garments, especially during peak hours, such as weekends. Tiresome lines, numerous restrictions, enormous crowds make it quite an unpleasant experience. Huge number of customers, and minimum numbers of trial rooms results in quite a lot of waiting time for customers, ultimately resulting in dissatisfaction. Due to security reasons, there is also a restriction on the number of garments that can be taken at one instance of time for trial. It increases the overall shopping time due to multiple trips from the shelves to the trial rooms. From the boutique's point of view, a large percentage of thefts happen because of sneaking in garments while in the trial room. Also they are unable to show the customers the fresh stock that is supposed to be delivered to the shop in the coming few days. To overcome these problems, we propose a Virtual Shopping Software.

III.PROPOSED SYSTEM

The camera continuously captures the image of the user and displayed on the desktop screen. Then user is extracted from that image by using haar cascade algorithm like skin color detection and face detection algorithm using haar classifier. Then user is allowed to select the cloth model from the given database. Using the lower body detection algorithm is shoulder points are detected and positioned the 2D cloth model on the user's body. Then scale the cloth model as required by using Euclidian distance between body joints and distance of the user from camera. Then superimposition of the cloth model takes place on the user's image. After that the superimposed image is displayed on the screen. If the user selects that model to buy, then remove that cloth model from the database and keep the user's record. The system architecture of real time virtual shopping software.

There are 5 main modules in our system:

- i.Admin
- ii.See the particular cloths
- iii.Select the cloths
- iv.Try the cloths
- v.Buy the cloths

IV.WORKING OF THE SYSTEM

Admin:-

- Admin has all the authority to have control over the proposed system.
- He could remove or add Database of garments if in case any misbehaving takes place.

- Accounts would be managed by him.
- In short, he has all the rights to operate or make changes in the proposed system.

See the particular cloths:-

- After login and getting access to the virtual shopping centre, the user has authority to see the particular cloths which user wants.
- See the particular cloths, is the window on which the admin shows only the garments over the window.
- After doing this all process then user can choose the garments.

Select the cloths:-

- After seeing the garments or the all database, the user can select the cloths which he or she can want.
- By selecting cloths the first process of operating the virtual shopping software is done.

Try the cloths:-

- The cloth which user is selected him or she can try the selected cloth virtually.
- Using webcam of laptop the virtual try on clothing is done in virtual shopping software.
- The webcam shows the users own image on the screen by which the virtual try on clothing is sees clearly.

Buy the cloths:-

- The last process in virtual shopping software is buying the cloths as we defined its offline so its work is to display the total cost of the cloths which we are buying.
- It generate the cloth of each garment which we want to buy.

V.SYSTEM VIEW

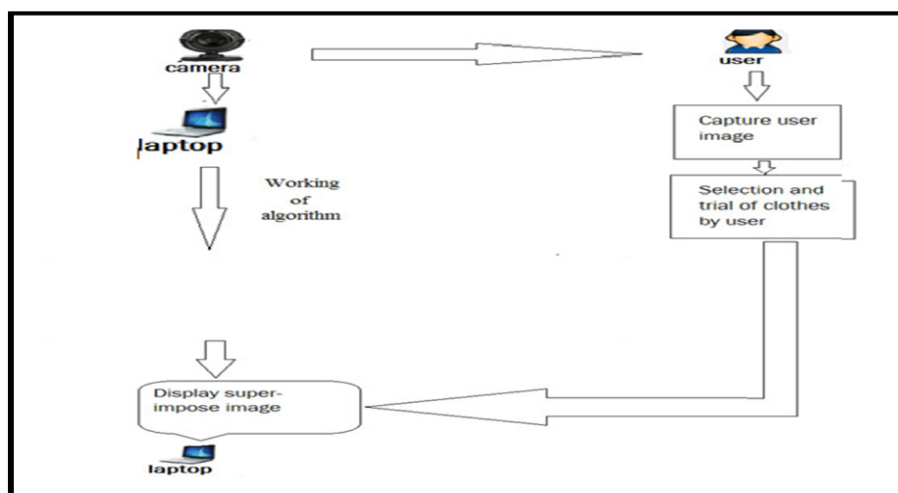


Fig.2: System flow diagram

Admin Module:



Fig. 3: Log in

See the particular cloths Module:-



Fig.4: See the particular cloths

Select the cloth Module:-

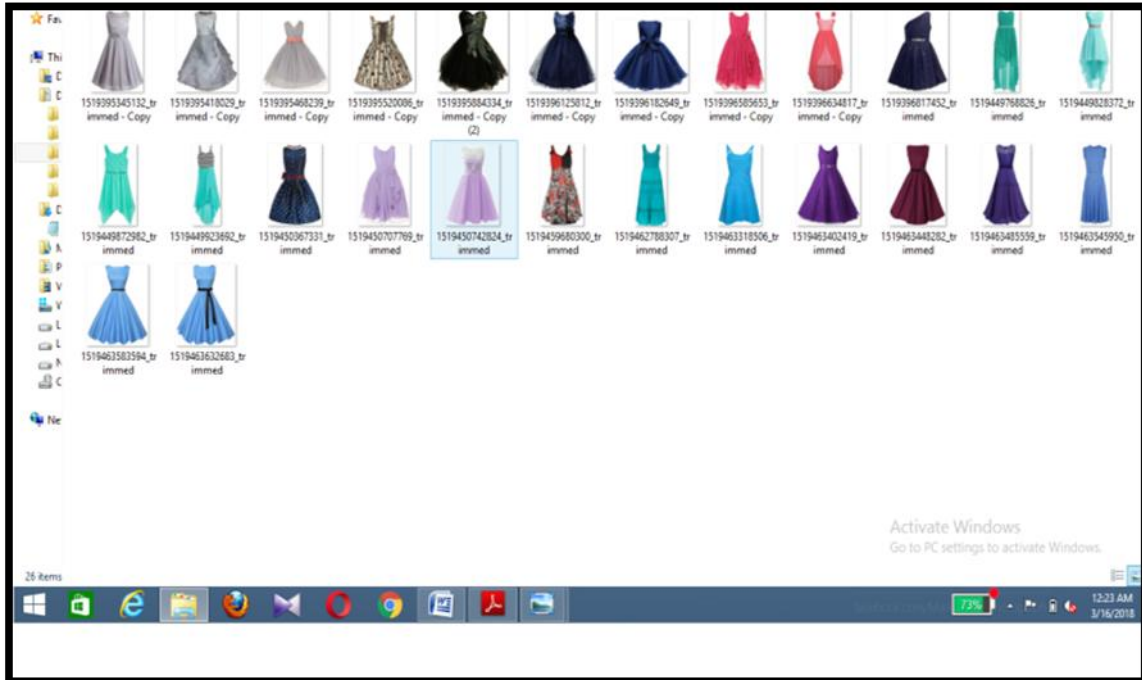


Fig. 5: Selection window

Try on Cloth Module:

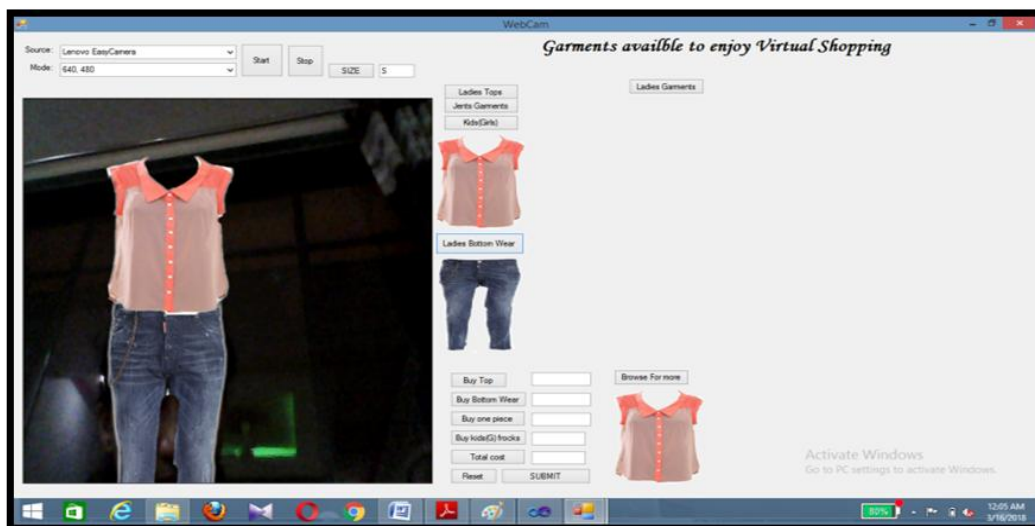


Fig. 6: Try on clothing



Fig.7: visual picture of try on clothing

Buy cloths module:-



| | | |
|--------------------|-------------------------------------|--|
| Buy Top | <input type="text"/> |   |
| Buy Bottom Wear | <input type="text"/> | |
| Buy one piece | <input type="text"/> | |
| Buy kids(G) frocks | <input type="text"/> | |
| Total cost | <input type="text"/> | |
| Reset | <input type="text" value="SUBMIT"/> | |

Fig.8: Generating cost to buying cloths

VI.MERITS OF PROPOSED SYSTEM

1. It reduces shopping time:-

- When we are going for shopping in mall ,stores there is may be lots of people are gathered for shopping so we may wait for trial rooms and because use of that we wasting so much of time so using “virtual shopping software” we reduces our shopping time.

2. It saves the retailer from damaged:-

- While shopping, garments due to heavy try and rehangng the cloths more time, there are defects occur in that cloths so the garment gets damaged and because of that we may suffer from losses so using virtual shopping software we can avoid this type of damage and losses.

3. You can try cloths easily before buying them:-

- While shopping, using this software we can try cloths easily before buying it.
- It is very easy to buy cloths.

4. It saves you from long queues at the malls and stores :-

- In some malls or stores, there is very traffic of peoples or customers, so people are stand in long queues more than time. Using virtual shopping software queues are saves & time wastage reduces.

5. It is used for women security purpose :-

- The very important advantage of virtual shopping software is women safety.
- In trial rooms, the illegal works are happens by using camera so it produces very crimes so using the software we maintain the safety of women.

6. No need of internet:-

- While using the virtual shopping software we do not require any type of network or internet, because this software is totally offline. It only needed system or laptop.

7. Do not require any external hardware:-

- As this software is totally software based it do not require any external hardware. Because of that the project cost also reduces.

VILDEMERITS OF PROPOSED SYSTEM:-

1. Only one user is allowed at a time:-

- As we are using the webcam of laptop in virtual shopping software. It is not more efficient to allowed more than one person so it works when only one person is in front of webcam therefore only one user is allowed at a time.

2. Need to adjust the proper position:-

- When we are going to stand in front of webcam there is need to select proper position to wear the cloths virtually.

VIII.CONCLUSION

- The main objective to obtain a real time, platform independent application was achieved.
- Users are able to select sizes and choose between different cameras on the device to implement the shopping room.
- By deploying it to the Market, this application can be used by retail companies for increasing their online presence.
- Using this software, the women safety maintains.

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