**VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY, PUNE**

**COMPUTER ENGINEERING DEPARTMENT**

**APRIL-MAY 2019**

# Synopsis

# Of

# 3D CLOTHING ASSIST

**Group number:** BE Comp/PRJ/18-19/26

Group Members :

1. Rishabh Sakhare

2. Sanket Jejurkar

3. Nitish Mhaske

4. Rushikesh Markad

Email-ID : rishabh.sakhare@viit.ac.in

Mobile no : 7588106306

**Title:** 3D Clothing Assist

**Objective :**

To enables shoppers to try on clothes to check one or more of size, fit and style but virtually rather than physically.

**Abstract :**

3D Clothing Assist is a platform where we provide an easy way to choose the variety of clothes, which suits you. Physical try-on of clothes is a time-consuming procedure in retail shopping, so we provide virtual try that can help to speed-up the process. The shopper can see the clothes on his body without wearing them or narrow down his/her selections before physical try-on.

The System also provide facility of suggestion that suits you. You can also invite your friends to be a part of this system and suggest them clothes.

**Briefs about Contents:**

1. **Introduction**

The proposed system is developed to overcome the problem of existing system due to which time saves. All data is taken into consideration while buying the product. 3D clothing Assist helps in E-Shopping by acting as virtual dressing. The images of the product will be super-imposed and augmented on user's body on live video feed. Thus, helping the customer an effect of a real dressing room.

The goal of system is to provide Virtual try-on of clothes that received much attention recently due to its commercial potential. It can be used for online shopping or intelligent recommendation to narrow down the selections to a few designs and sizes. In this paper, we present a mixed reality system for 3D virtual clothes try-on that enables a user to see herself wearing virtual clothes while looking at a mirror display, without taking of her actual clothes.

2. **Technical Details:**
    a. **Hardware Requirement:**

    Since neither the mobile application nor the web portal have any designated hardware, it does not have any direct hardware interfaces. The physical Camera is managed by the Camera application in the mobile phone and the hardware connection to the database server is managed by the underlying operating system on the mobile phone and the web server.

**b. Software Requirement:**

Operating environment for 3D Clothing Assist is as listed below.

1. Client/Server System
2. Operating Systems: Windows, Linux
3. Database: SQL database
4. platform: PHP, Python
5.Face Detection APIs

## 3. Working :

By integrating users' own photos of their face with product images, the app gives buyers a concrete visualization of potential purchases. If seeing is believing, trying on seals the deal. Augmented reality or AR goes beyond VR in some key respects, enabling users to integrate real and virtual scenes – in effect, allowing us to try on products before we buy. The minimum body measurements should be provided. The images of the product will be super-imposed and augmented on users' body on live video feed. Thus, helping the customer an effect of a real dressing room.

## 4. Application:

1. Online Clothing Stores could integrate this system with their online stores for attracting more customers by giving such reliable method.
2. Retail stores could use this system for reducing time and traffic for the trial rooms
3. This system can be used for giving a gift to a friend
4. Can be used by Fashion designers for giving a try of the designed products on virtual human models
5. Can be used by Game designers for trying on the designed apparels on a template character.

## 5. References/Bibliography:


1. A. Hilsmann and P. Eisert,
   "Tracking and retexturing cloth for realtime virtual clothing applications," in Proc. Mirage 2009|Comput. Vis./Comput.Graph.Collab Technol and App., Rocquencourt,France, May 2009.

2. Papahristou E,
"3D Virtual Prototyping Traces New Avenues for Fashion Design and Product Development: A Qualitative Study", in Journal of Textile Science and Engineering. April 30, 2017
3. P. Eisert and A. Hilsmann,
“Realistic virtual try-on of clothes using real-time augmented reality methods, "IEEECOMSOCMMTCE-Lett., vol. 6, no. 8, pp. 37{40, 2011.
4. B.Spanlang,T.Vassilev,andB.F.Buxton,
“Compositing photographs with virtual clothes for design,” in Proc. Int. Conf. Comput. Syst. and Technol., 2004, pp. 1–6.