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Digital Wardrobe Experience –Virtual Try on Clothing

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ABSTRACT

The image-based virtual try-on project is all about using computer vision and augmented reality. We're working on clever computer programs to spot and follow your body and the clothes you want to try on in pictures. This means figuring out how you're standing, separating you from the background, and making the clothes look real on you. It's like making a virtual fitting room with some high-tech magic. Image-based virtual try-on is a cool tech that lets you try on clothes in pictures. It uses smart computer stuff to figure out your body shape from your photo. Then, it magically puts the clothes on you in the pic, making sure they look right with the right fabric, texture, and fit. It's like a virtual dressing room on your screen. This tech wants to give you a super-real and fun way to try on clothes without actually putting them on. Imagine seeing how different outfits would look on you, just by using your computer or phone.

Keywords : Shopping, Virtual Try-on , Image Based ,Clothing ,Fitting Room, Algorithms, User , Virtual reality.

I. INTRODUCTION

ImagebasedvirtualTry-onclothingisaconceptofprovidingcustomeranexperienceofvirtually trying multiple clothes of his or her choice without making him travel to the shop ormarket. Thisconceptofdigitalwardrobecanmakeonlineshoppingforcustomermorereliableandtrustableinthisworldwhereitisnotpossibleforcustomertotraveleverytimetotheshoptopurchaseclothingitems.Thissystemwill be a digital wardrobe for the customer where they can try clothing of their choice by just uploading their image into the system. It could make online shopping way better because you won't need to visit real fitting rooms, and you'll be happier with what you buy. It's like a fashion revolution online.

There arealotofalgorithmshavebeendevelopedforaccuratelycalculatingthesizeandtheshapeofthebodyandsuggestingtheperfectclothingitemtotheuser. Researchersarealsoworking on improving the privacy of the data mostly in the form of images provided by users. This proposed system will help users to find out their favourite clothing items and

will alsoprovideuserswiththeonlinevirtualtry-onexperience. Inthissystemuserwillprovidehisimagetotheapplicationandthenwillbeabletoselectthe clothingitemthathewantstotry. systemwillputthatclothingontheimage providedbytheuser.

II. LITERATURE SURVEY

Sr. No.	Paper title	Author Name	Year of Publication	Problem solved in this paper : Existing Problem Statement	Technique used to solve problem : Existing Problem Solution	What will be future work : Future Scope
1.	Dress Code:High-Resoluti-onMulti-CategoryVirtual Try-On	Davide Morelli1,MatteoFincato1, Marcella Cornia1, Federico Landi1,*, Fabio Cesari 2,andRita Cucchiara1	2022	Todevelopasystem thatenablesusersto virtuallytryoncloth ingitems.	Computer vision, machinelearning,AR development,userinterface design, and e-commerceintegration.	Technological advancements, user expectations.
2.	Virtual Cloth Try-On Using Augmented Reality-Marker Based Approach	PrajaktaJoglekar,VinayaGohokar	2022	AR approach for virtual cloth try-on that overcomes these challenges.	Revolutionize the online fashion industry by providing a realistic, interactive, and user-friendly try-onexperience.	Reshape the fashion industry, online shopping, and user experiences in profound ways.
3.	Image-BasedVirtual Try on Clothes	Prof.SuvarnaBahir1, ShivaniShedage2, SakshiTalekar3, PoojaMokashe4	2022	To develop an image-basedvirtualtry-onsolutionthatprovidesarealistic experience forusers.	Comprehensive approachtoaddressthechallenges.	Enhance the shoppingexperience,reducewaste.
4.	ANovel	T S	2022	To develop a	Virtual visualization	Redefine

	Approach of Virtual Visualization of ClothFitting	Prabhakar, NM Shreyas,AkshayRaghu ,Chethan B R,ImpanaG Shetty		approachfor virtual cloth fittingvisualization thatovercomesexisting limitations andenhancestheonlineshoppingexperience.	ofclothfittingaimstorevolutionize the onlinefashionindustryby providingarealistic,personalized, andintegrated virtual fittingexperience that benefitsbothconsumersandretailers.	howconsumersshopforclothingandfashionitems.
5.	DressCode:High-Resoluti-on Multi-CategoryVirtual Try-On	DavideMorelli1, MatteoFincato1, MarcellaCornia1, FedericoLandi1, FabioCesari2, Rita Cucchiara	2022	Providingusersarealisticanddetailedvisualizationofhowdifferent clothing itemsfitand lookon them.	Developing acomprehensivesystemthatprovidesuserswithahigh-resolution,multi-categoryvirtualtry-onexperience.	VirtualTry-Onispromising and likely torevolutionize thefashion industry.
6.	A Flow-Based GenerativeNetwork forPhoto-Realistic Virtual Try-On	AOWANG ,XIAOLINGGU , (Member,IEEE), ANDJUNKAIZHU	2022	Photo-realisticvirtualtry-onexperiencesforclothingitems.	Revolutionize the onlinefashionindustryby offeringahighlyconvincing,interactivevirtualtry-onexperience.	Redefineonlinefashionshopping ,providingusers with highlypersonalizedandimmersive experiences.
7.	MultiplePoseVirtualTry-On Basedon 3D ClothingReconstru-ction	THAITHANHTUAN1 , MATIURRAHMANMINAR1, HEEJUNEAHN1, JOHNWAINWRIGH	2021	Tovisualizehowclothing fits and appearsfrom differentangles.	Computervision,3Dmodeling,physicssimulations, augmentedreality,userinterfacedesign,ande-commerceintegration.	Fashion industry,making online shopping moresustainable.

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8.	Toward Realistic Virtual Try-onThrough Landmark - GuidedShape Matching	GuoqiangLiu1, DanSong2, RuofengTong1†, MinTang1	2021	Existing methods oftenstruggletoaccuratelysimulatehowagarment will drape andfitonanindividual'sbody,leadingtopotentialcustomerdissatisfaction.	Computer visiontechniques, 3D modeling,physics-based simulations,anduserfeedbackintegrationtoachieveahighly realistic virtual try-onexperiencethroughlandmark-guidedshape matching.	Revolutionize thefashionindustryand onlineshopping experiences
9.	Image-BasedVirtualClothing	HarshadaKudtarkar1, DineshFarad2, RuchiraZope3andProf. DhanashreeHadsul4	2021	To develop an image-basedvirtualclothingsystem that overcomesthese challenges,providing users with arealistic and interactivetry-onexperience.	Revolutionizetheonlinefashion industry by offeringaconvincing,interactive,and user-friendlyvirtual try-onexperiencethataddressesthechallengesofonlineclothing shopping	Transform onlinefashion shopping,offeringhighlyimmersive, personalized, andintegrated experiences.
10.	VITON-GT:An Image-basedVirtualTry-On Model withGeometric Transformations	MatteoFincat1, FedericoLandi1, MarcellaCornia1	2021	Removing thelimitationsofexistingimage-basedvirtualtry-onmodels.	Addresstheproblemofachievingrealisticvirtualtry-onusinggeometrictransformations.	Redefine the wayconsumersshopforclothingandfashionitems.

III.LIMITATIONS OF EXISTING SYSTEM

- DespitethefactthatsmartphonesarebecomingmorepowerfulltheyarestillnotverycompatibleintermsofprocessingspeedwhencomparedtoaPCenvironment.
- BecauseaugmentedrealityisstillarelativelynewtechnologydevelopmentresourcesandtoolsarelimitedNot Super Realistic: Virtual try-on systems can't make clothes look exactly like theydo in real life. They might not fit your body perfectly, and the colours and texturesmight notbe quiteright.
- ColoursandTexturesCanBeOff:Sometimes,thecoloursandmaterialsoftheclothesinthevirtualtry-onmightnotmatch what you'd seeinreal life.
- Hardware and Software Requirements: Users often need high-quality hardware, suchasacomputerwithagoodgraphicscard,andastableinternetconnectiontouseimage-basedvirtualtry-onsystems.Thiscanlimitaccessibilityforsomepotentialcustomers.
- Integration Challenges: Implementing image-based virtual try-on solutions on e-commerce websites or mobile apps can be technically challenging. Integration mayrequiresignificantdevelopment effortand resources.

IV.CONCLUSION

The future of image-based virtual try-on is promising, offering exciting possibilitiesfor the fashion industry and consumers alike. With ongoing innovation and user-centricdesign, these systems have the potential to redefine the way we explore, choose, andexperiencefashioninthe digitalage.

In the future, we can expect these virtual try-on systems to get even better and makeonline shopping more exciting. They have the potential to make our digital fashionadventuresmore personaland enjoyable.

V. REFERENCES

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[9]. Image-BasedVirtualClothing.
[10]. VITON-GT An Image- based Virtual Try-On Model with GeometricTransformations.