



Augmented Reality

उभयतः

Exploring tech rising star



Bharati Vidyapeeths

Institute of Management & Information Technology

Navi Mumbai

**BHARATI VIDYAPEETH'S
INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY
NAVI MUMBAI**



Late DR. PATANGRAO KADAM
Founder Bharati Vidyapeeth
Chancellor, Bharati Vidyapeeth
University, Pune



DR. VISHWAJEET KADAM
Pro-Vice-Chancellor
Bharati Vidyapeeth
University, Pune



Dr. SHIVAJIRAO KADAM
Chancellor
Bharati Vidyapeeth
University, Pune



Prof. Dr. MANIKRAO SALUNKE
Vice-Chancellor
Bharati Vidyapeeth
University, Pune

ADVISORY BOARD

Dr. V.J. Kadam
Regional Director
Navi Mumbai Campus

Dr. Jyoti Kharade
Associate Professor

Dr. Suhasini Vijaykumar
In-Charge Principal

CHIEF EDITOR

Prof. Pratibha Deshmukh

CO-EDITOR

Prof. Mayuri Dendge

STUDENT EDITORS

Hardik J. Joshi

Priya Singh

Gaurav K. Acharekar

Shruti S. Nair

In-charge Principal Desk



Dr. Suhasini Vijaykumar
In-charge Principal

BVIMIT fortifies student's intellectual awakening and social transformation in different spheres that makes them to contribute to the organization and world as well. We strengthen student's hard work and commitments towards knowledge.

BVIMIT provides MCA, VI semester course enables overall development of students and give a different perspective towards corporate life.

Current newsletter entitled "***PRABHAT-exploring tech rising star***" is a combined effort of students and staff members that commences articles on emerging technologies with theme as "**AUGMENTED REALITY**" provides articles for the same.

I hope "**PRABHAT**" will take you to the world of prominent technologies.

Editorial Desk



Asst. Prof. Pratibha Deshmukh
Editor-in-chief

It is indeed a great honor to be the Newsletter Editor for me and also an immense pleasure to launch the first edition of BVIMIT Newsletter “PRABHAT-exploring tech rising star”.

As we are living in the technological era, we have selected the topic for the article as “AUGMENTED REALITY” to make students aware about this emerging technology. It aims to be a truly interdisciplinary platform seeking to bring together a range of diverse voices on the topic in order to stimulate discussion.

A huge thank you to all the students who contributed writing the articles, without which there wouldn't have been this newsletter.

I appreciate PRABHAT student members for their everlasting support throughout the creation of this edition.

I hope “**PRABHAT**” will convey some technical knowledge to you.

Augmented Reality-The Core Of Future Technology...

Augmented reality -the Boom to user view.

This technology a 3-D view of the real world with the help of computer generated environments. AR adds graphic, sound, haptic feedback to the real-world objects and provides different perspective to the same.

Augmented Reality and Virtual Reality are not same there is wide difference between them.

Augmented Reality is an enhanced view of real world with the use of digital technology on any image.

AR apps are used to generate various ideas to develop any profession or play games. You can also find money machines, see real estate for sale, find restaurants, and more using the AR feature of the application. Here there is no stimulation whereas it provides a real view of the image.

It gives a clear idea about the real-world objects and the augmented object what it can be.

AR enriches the real-world data with 3-D models, overlapping the real time objects with the augmented one.

It uses a wide range of digitized devices superimposing the real with virtual one.

The output is simultaneously produced as soon as input is received from camera or any another input device. Input can be anything, an image or any video or an object. Once the application identifies the input it processes it and later overlaps with the digitized world.

The major impacts of this technology are in manufacturing, business and games.

AR provides a different perspective of design in business which specifies a broad the element to provided and what changes can be applied to it and makes change to enhance the element.

Home AR Designer- A home improvement application through augmented reality with high quality configurable furniture 3D models can be viewed and made changes as per new ideas evolved.

AR technology can be used in education –the major developing field where all the videos and content can be embedded with real world examples which provides a clear idea of any subject.

Games are the major impact of AR technology Harry Potter: Wizards Unite , Pokémon GO etc are examples of AR games available on Google play store.

This technology can be also used to translate the languages from one to another.

The people who are benefited by these AR apps are

Photographers - For planning ideal conditions, for photo shoot.

Cinematographers - To search for any location.

Real Estate Buyers - To search properties that the customers are considering for any place.

Drivers - To find how long the car will remain in the shade at any parking spot

Campers - To find where to camp, sit or pitch an umbrella

Gardeners - Helps to search for perfect locations for planting and seasonal sunlight hours

Architects - For visualizing the new designs of any infrastructure.



NAIR SHRUTI SHASHIDHARAN
MCA SEM II

AR applications in smartphones generally include Global Positioning System (GPS) to spot the user's location and detect device orientation.

Just as every coin has two sides AR also has advantages and disadvantages. AR has impacts on society that leads to development similarly the side effects of this technology can delimit these impacts.

The one of the major drawback is that data can be hacked easily or there is no privacy maintained where the personal and professional details can be hacked easily

One can see and experience the world from your living room through any digital device there would be less interaction with real world and people tend to be more casual and lazy to develop new ideas as the device itself is generating the same.

Advancement of Augmented Reality over the years:

Launch of Apple AR Kit- It allows developers working on AR apps to integrate digital experiences into the physical world using iPhoneX.

Augmented Reality: Next Biggest Technology.

Augmented Reality as name specifies means “to add or enhance something.

It is an enhanced version of reality where live direct or indirect views of physical real world are augmented with computer generated images over a user view thus enhancing one’s current perception of reality.

Augmented reality is the process in which a digital image is superimposed on a scene from the real world, creating a view that is part reality and part virtual reality.



**NAQVI ADIBA ANISUL HASAN
MCA SEM II**

The idea behind it is to add graphics, sound & touch feedback in the natural world to create an enhanced user experience. So that user views a series of images via a pair of 3D glasses or a head mounted display (HMD). Augmented reality glasses are worn in the same way as virtual reality glasses in that they enable the wearer to interact with these images as part of the overall experience.

Current Use of Augmented Reality

For the first time, it is used in Newspaper as it scans the code and display live animation with the help of mobile display. It enables people to see a video, animation, or other unexpected content that is apparently located on a page of their newspaper.

Apps like Beauty camera also use Augmented Reality as it combines real pictures and virtual reality object & work on AR platform.

Augmented Reality is used in sightseeing and tourism industries. The ability to augment a live view of displays in a museum with facts and figures is a natural use of the technology.

Medical field uses it on high demand as it can reduce the risk of an operation by giving the surgeon improved sensory perception.

The latest smash hit Pokémon GO is based on augmented reality and it was a huge success which allows players to chase and catch virtual Pokémon in real world locations & has been downloaded over 650 million times

Future of Augmented Reality

Currently, IBM (Indian Business Machine) is working on a project named as “NerveGear” which is based on augmented reality. Nerve-gear is a device which is directly connected to human coordinial system and can project images & sends signals directly to the brain. With the use of this technology there is no need of physical display as it can directly project the object to the brain.

AR technology can be used to track nearby shops, hospitals etc along with whole information about it.

It can be used in educational fields as it scans the word & plays related videos for better understanding of a topic.

It can be used in field of Home Designing to get proper idea of interior design & placing of objects as it results in taking effective decisions

Used in military to provide location of enemy positions.

It's destined that future will belong to the Augmented Reality.

What Are AR Devices?

AR devices are portable mini devices with high processing power including CPU-Central Processing Unit GPU- Graphics Processing Unit, RAM-Random Access Memory & Flash Memory uses 2D/QR camera.