

# Connecting Through Zoom in COVID-19 Pandemic



Kamini Sharma, Anurag Sharma

**Abstract:** In the Covid-19 pandemic where every working person is working from home to stay safe and to maintain social distancing. In mild of the corona virus crisis, the videoconferencing app has emerged as the usual for connecting with others face-to-face actually in each commercial enterprise and private settings. In Covid19 pandemic the main trouble got here out turned into a way to live related with every other. Connectivity turned into the main trouble for anyone like in schools, colleges, universities, private sector, Government sector, spiritual sector, not unusual place human beings and plenty of more. Every task that become occurring physically among human beings went on-line via video conferencing apps Because within side the pandemic of COVID-19 no individual favored to have an impact on their jobs or employment, studies, business, personal relationship, and lots of various relationships. In mild of the corona virus crisis, the videoconferencing app has emerged as the usual for connecting with others face-to-face actually in each commercial enterprise and private settings. There are many videos conferencing gear to be had like Google meet, skype, slack, join.me, GoToMeeting, Cisco WebEx, etc. Even in case, you do not work from home, you have heard of Zoom. Zoom has emerged as incredibly famous amongst all on this COVID-19 pandemic. Let us have a few mild at the Zoom video conferencing app.

**Keywords:** Zoom, Corona virus, COVID-19, Video Conferencing application, Google meet, skype, slack, join.me, GoToMeeting, Cisco WebEx.

## I. INTRODUCTION

As technology progresses, humans in many areas are overpowered. There are various considerations where technology is employed for environmental analysis rather than human analysis.

There are many Video Conferencing applications used for studies by student, work by companies, Business person, doctors etc. The most popular application that is being known by everyone who is working or non-working is "zoom". Zoom is a cloud based advance and innovative videoconferencing platform with unique features that intensify the quality of future qualitative and mixed methods researchers.

Zoom is a video communications platform with many other features like online video conferences single or in a group, Ability to record meeting, chat in meeting, waiting rooms, Virtual backgrounds, mute or unmute, with video or without video etc. Zoom is well matched with every OS. It is stated for its easy interface and easy to use, irrespective of technological expertise. On this platform we can do free video calls with 100 participants and for 40 minutes but if need to add more than 100 participants we must take zoom subscription which costs \$15-20 per month. Zoom is now the video communicate platform of choice for governments, companies' startups, and normal humans looking to chat, or party with their friends and family.

Zoom has some limitations on which this research is done like security, connectivity, has to update screen sharing and many more.

## II. REVIEW OF LITERATURE

In the last few years, researchers on Zoom a video conferencing application have developed various practical methods.

**Ajay Chawla et al. (2020):** Advances in communication technologies have opened new avenues for qualitative research. Zoom, an innovative videoconferencing platform, is one of them, and it offers several unique features that make it appealing to qualitative and mixed-methods researchers. As people around the world have acclimated to life at work, Zoom has become synonymous with office meetings and socializing [2].

**Nir Kshetri et al. (2020):** In conclusion, COVID19 has a variety of consequences on big tech that cannot be grouped into a single category. The epidemic has resulted in a significant reduction in discretionary spending, which has had a significant impact on businesses such as Twitter and Facebook. Firms with a wider range of products and services have a better cushion against losses. Firms that we're able to expand their offerings to satisfy the needs of their customers. [3]

**Mandy M. Archibald, Rachel C. Ambagtsheer, Mavourneen G. Casey, Michael Lawless et al. (2019):** With advance technology of zoom many studies and

researches are taking place. Many schools' colleges and university are using zoom. Zoom is very useful in conducting interviews these days. According to the research on nurses

Interview some said zoom good, some said very good and some of them got it poor. We requested sixteen exercise nurses who participated in on-line qualitative interviews their reviews of the use of Zoom and simultaneously recorded researcher observations.

Manuscript received on July 20, 2021.

Revised Manuscript received on July 27, 2021.

Manuscript published on 30 July, 2021.

\* Correspondence Author

**Kamini Sharma\***, Department of Computer Science and Engineering, Dr APJ Abdul Kalam Technical University, Lucknow (U.P.), India. Email: sharmmakamini1996@gmail.com

**Anurag Sharma**, Department of Computer Science and Engineering, Dr APJ Abdul Kalam Technical University, Lucknow (U.P.), India. Email: anurag121097@gmail.com

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

Although numerous individuals skilled technical difficulties, maximum defined their interview enjoy as fine and normally rated Zoom above opportunity interviewing mediums along with face-to-face, telephone, and different videoconferencing services, platforms, and products. Findings advocate the viability of Zoom as a device for series of qualitative records due to its relative ease of use, cost-effectiveness; records control functions, and protection options. Future study is going on Zoom to make this more accurate.

**Wen-Chen Hu, Benu Bansal, and Naima Kaabouch (2020):** People used bodily conferences and gatherings to collaborate with others in the past. However, this bodily collaboration now no longer works during a pandemic due to the fact human beings are required to maintain social distance, live far from the crowd or even paintings or examine at home. A new manner of collaboration the usage of cellular and Wi-Fi computing, like Zoom, Slack, and Teams, has commenced to flourish. Mobile and wi-fi computing does facilitate digital collaboration without doubt, however it additionally brings contemporary issues like safety and privateness problems, which do now no longer occur regularly during bodily conferences or gatherings. Steady and privateness-preserved far off surroundings is critical for the exclusive facts shared over the digital systems due to the fact the cloud-primarily based totally gear have the risk of unauthorized get entry to and statistics jeopardizing. This article discusses diverse problems associated with the usage of cellular and wi-fi computing to facilitate digital collaboration during a pandemic, and the way and what technology are used to keep person privateness while collaborating digital collaboration and make cellular and Wi-Fi computing steadier [5].

**Gergely Buday (2020):** Hopefully the pandemic can be over a while from now. Still, videoconferencing can be a legitimate option, even for college kids. Yes, we're privy to its drawbacks however it has benefits as well. This summer time season we can be able to observe a great deal greater meetings than our price range could in any other case allow [6].

**Weizhi Menga, Yu Wang, Duncan S.Wong, Sheng Wen, Yang Xiang (2018):** Modern cellular gadgets in particular Smartphone's have unexpectedly developed and are extensively followed through human beings of various ages. Smartphone's can help customers in a lot of activities, i.e., from social networking to on-line shopping, however additionally have end up an appealing goal for cyber-criminals because of the saved private statistics and touchy information [7].

**Ajaay Published on October 21, 2020:** Zoom Limit: Maximum Participants, Call Duration, and More. When the usage of a unfastened plan on Zoom, you could behavior conferences with as much as a hundred members according to meeting. However, paid customers may be capable of create large conferences with extra members. The maximum quantity of members may be invited whilst a bunch has subscribed to a Zoom Enterprise plan and this plan lets in as a lot as one thousand members according to meeting [8].

**Zoom Meeting Timeouts, Limitations, Restrictions (informationtechnology.seinahieghts.edu):** Total participant should not be more than 100 for free, timeout sessions are of 40 minutes.[9]

**ZoomTogether (<https://blog.zoom.us>) 2020:** Celebrate the Holidays with Unlimited Meetings from Zoom. COVID-19 has modified how we live, work, and have a good time in 2020, and prefer the entirety else this year, the vacation season doesn't appearance the same. As a token of appreciation to our customers for the duration of a tremendous time, we're casting off the 40-minute restrict on unfastened Zoom money owed for all conferences globally for numerous upcoming unique occasions [10].

**Covid Impact on Meeting Apps like Google Meet, Zoom, Microsoft Teams Never Had It Better (By CNBCTV18.com [May 31, 2021, 08:15 PM IST (Published)):** As earn a living from home have become the norm withinside the wake of the COVID-19 outbreaks final year, on-line meetings, administrative or otherwise, have become routine. Nobody ought to have imagined that pleasant chats the use of virtual equipment might grow to be sober boardroom meetings or on-line lessons with the assist of video assembly apps like Zoom, Microsoft Teams and Google Meet[11].

### • PROPOSED WORK

### III. PROBLEMS IDENTIFICATION

In this work, we analyze the basic problem of scene classification about scene classification for indoor-outdoor. In previous work, they have used AlexNet DCNN for the scene classification of indoor-outdoor. The depth of this model is much smaller and thus it is hard to learn from the collection of images. More time is required to produce better results. AlexNet stacks fewer layers and maximum size filters. To deal with such an issue we have used VGG16 deep CNN model scene understanding and classification that intends to understand the activations from images of various public scene environments with the help of CNN.

### IV. PROPOSED METHODOLOGY

In the work of Research we have found many limitations of Zoom .we are considering those limitations and developing one video conferencing application with advance features. So, to dispose of that hassle in video conferencing software, I am going to increase an up-to-date model of video conferencing software named "Glancelot". Glancelot Meetings are easy, reliable, and consistent, imparting HD video, audio, and content material fabric sharing during the whole lot from your Mobil Euler and laptop devices to telephones and conference room systems. Glancelot is an application that lets in clients to make unfastened video calls with someone or corporation of people. They look at with video calls as "conferences." Glancelot is video conferencing software which offers with the hassle of zoom clients going through at some point of their calls or conferences. Like, Glancelot has the choice of remaindering the purchaser on which date and time Glancelot might be close or its server might be down.



- An electronic mail might be furnished to all customers so, all of them should turn their scheduled conferences to a few different modes or should reschedule the conferences or conferences. Glancelot has the choice of popup or a notification earlier than your assembly goes to begin. Through which person couldn't overlook his/her scheduled conferences, classes, or conferences. Sometimes all of us get so busy with different paintings that we overlook our scheduled conferences this sort of popups or notifications will assist them to preserve in remember.
- Glancelot offers customers multiple host choice through which if one host is busy every other can begin the assembly and the primary you may be part of the crew after you have free. By this, the assembly does now no longer ought to reschedule.
- More than a hundred customers can join at one time in a single assembly free of charge while in zoom its miles restrained to a hundred customers free of charge.
- Glancelot offers a choice of display sharing at the same time as person sharing their display; they also can percentage their face. So, the competition birthday celebration can see your facial expressions together along with your display and effortlessly recognize what the person desires to explain.
- So, the selection of selecting the high-quality and handy software is taken from the studies and diverse assessments. This sort of software may be used for video conferencing for non-public use, informal and formal conferences, workshops, lectures, and faculty classes, etc.

**V. RESULTS AND DISCUSSION**

This work has implemented using java programming language. Project Backend technology: Spring Boot Framework. Project Development Language: Java (jdk 8). Database Integrated: MySQL 8.0 Data base Connectivity Technology: Spring Data JPA. Video Conferencing server / Interface Server: JITSY API. Front End Technology: HTML, CSS, JAVASCRIPT.

This research is based on java programming language. Java version jdk8 is used for developing this application. Glancelot has similar features as zoom with some additional features. The results we got comparing both applications were as given below:

**Table 3: Results**

Features	Zoom	Glancelot
Number of participants for free	100	More than 100
Screen Sharing and Face sharing together	NO	YES
Easy connectivity	NO	YES
Secure (End to End Encryption)	NO	YES
Host	One	Two
Chargeable	YES	NO
Popup for upcoming meeting	NO	YES

**VI. CONCLUSION**

The conclusion from this research I got is there are many videos conferencing applications word wide. In this COVID-19 pandemic we all have used different types of video conferencing application for our work. The most popular video conferencing app is "zoom" and is known by everyone even who is working or non-working. But there were some limitations in zoom that we have tried to solve in our project named Glancelot. Glancelot is reliable, easy to use and free of cost video conferencing application.

**FUTURE SCOPE**

Video conferencing has become a protracted manner from the early days of telepresence suites and nascent computing device offerings. Now customers could make video calls from anywhere - the road, a boardroom, or an advert hoc huddle space. But the destiny of video conferencing guarantees greater than reliable, extremely good calls. Video Conferencing applications are becoming demand of every enterprise these days. As India is trying to move in virtual world to maintain social distancing, Video Conferencing is becoming a part of it. Now human can do video calls, chats from anywhere to anywhere in this world. Video conferencing guarantees us to give safe and secure communication. While video conferencing apps are easy to use but in the backend they are using many new techniques like cloud computing and Artificial Intelligence. We have used java jdk8, spring, HTML, CSS, etc. There are many technologies used behind it which is not known by the user. Video Conferencing applications are trying to make them more secure.

From COVID-19 situation we came to know that our work can be done from home, students can learn at home, meetings can be attended at home. From home we can connect with each other safely and easily. Future scope of video conferencing application is very bright. In glancelot we will try to make it more connectable it less speed of data, we will try to provide more enhancing feature for free by which everyone could easily use it.

**ACKNOWLEDGMENT**

I am thankful to Dr. Anurag Sharma, HOD, Faculty of Engineering and Technology, Agra College, Dr. APJ Abdul Kalam Technical University and Dr. R K Sharma, Associate Professor at FET Agra College, Agra for their motivation and support in this research.

**REFERENCES**

1. ZOOM CEO AND FOUNDER ERIC S. YUAN BY WWW.GOOGLE.COM .
2. Ajay Chawla Corona virus (COVID-19) – ‘Zoom’ Application Boon or Bane May 20, 2021. ([www.google.com](http://www.google.com)).
3. Nir Kshetri COVID-19 Meets Big Tech publisher IEEE July30, 2020.
4. Mandy M. Archibald, Rachel C. Ambagtsheer, Mavoumeen G. Casey, Michael Lawless et al. (2019).
5. Wen-Chen Hu, Benu Bansal, and Naima Kaabouch (2020).



6. Weizhi Menga, Yu Wang, Duncan S.Wong, Sheng Wen, Yang Xiang (2018) TouchWB:Touch behavioral user authentication based on web browsing on Smartphone's (by [www.google scholar.com](http://www.google scholar.com)).
7. Ajaay Published on October 21, 2020: Zoom Limit: Maximum Participants, Call Duration, and More.
8. Zoom Meeting Timeouts, Limitations, Restrictions (informationtechnology.seinahieghts.edu).
9. ZoomTogether (<https://blog.zoom.us>)2020.
10. Covid Impact on Meeting Apps like Google Meet, Zoom, Microsoft Teams Never Had It Better (By CNBCTV18.com |May 31, 2021, 08:15 PM IST (Published)).

### AUTHORS PROFILE



**Kamini Sharma**, is currently persuing M.Tech in Computer Science and Engineering from Faculty Of Engineering and Technology, Agra College, Agra, Dr APJ Abdul Kalam Technical University, Lucknow, India. She completed her B.Tech in 2019 in Computer Science and Engineering from Faculty Of Engineering and Technology, Agra College, Agra, Dr APJ Abdul Kalam Technical University, India. Her major research is in the field of Video Conferencing Application. Her technical skills are java, spring, CSS, Sql, Oracle 11g etc.



**Dr. Anurag Sharma**, Completed his M.Tech degree in Computer Science & Engineering from Dr BR Ambedkar University, Agra and PhD from Bhagwant University, Ajmer, Rajasthan, India. Presently working as Head of Computer Science & Engineering Department Agra College, Agra and also holding many administrative posts. Research area in the field of Wireless networking, Ad-hoc networks, Machine Learning Database etc.. Total publications are around 20 papers in different national/international journals & conferences. He attended Short term courses at IIT Guwahati and Workshops, Faculty development programs organized by different universities and colleges also the Life member of IET and many other societies.