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A Study on Impact of Covid-19 on Indian Education System

Sonia Kashyap
Student, Delhi University, Delhi

Abstract: ***The spread of pandemic COVID-19 has drastically disrupted every aspects of human life including education. It has created an unprecedented test on education. In many educational institutions around the world, campuses are closed and teaching-learning has moved online. Internationalization has slowed down considerably. In India, about 32 crores learners stopped to move schools/colleges and all educational activities brought to an end. Despite of all these challenges, the Higher Education Institutions (HEIs) have reacted positively and managed to ensure the continuity of teaching-learning, research and service to the society with some tools and techniques during the pandemic. While we all know that the entire world is facing the tough time due to impact of COVID 19. It has hampered almost all the sector in more than 200+ countries. India is also facing the major impact of it from the March 2020 till today due to the reason that the whole India is facing the challenge of Lockdown. It has also have the major impact on the Indian Education society and all the academic work is put on hold by the apex body UGC for the safety measures of students and faculties. In this paper, we have focused on to check the impact of COVID 19 on the Indian Education working pedagogy and its positive and negative impact in terms of student and faculty perspective. For this purpose the primary study has been conducted by structuring questionnaire by asking open ended and close ended questions to the respondent and our major stakeholders associated with the Indian education for the survey such as Students, faculties and Parents. The study is descriptive and analytical in nature where the information has been collected from the various official websites, newspapers, online news articles, and discussions. The study mainly focused on the recent adaption by the faculties to teach their students through the Virtual classroom instead of physical classroom teaching. The paper will give the final outcome of the benefits and drawbacks of Virtual classrooms in the opinion of faculties, students and parent's opinion. The paper will also let us know that due to coronavirus impact the Virtual classroom is now the integral part of Indian Education society or not. The higher education plays a key role for socio- economic development of the people in any country and with the implementation of these suggestive measures, the country will move forward and ensure the overall progress in education sector. Some fruitful suggestions are also pointed to carry out educational activities during the pandemic situation.***

Keywords: Crisis period, Indian education system, Pandemic, Virtual classes, Educational institutions.

I. INTRODUCTION

Even though, the education sector is suffering from various disparities like inefficient educational infrastructure, imbalanced teachers-students ratio, lack of modern technologies of teaching, lack of interest in education among the rural people, apathy and lethargy about the schooling etc. After 74 years of independence, India is not able to provide minimum level of education to its all citizen with these difficulties, now a days, and the country is facing the worst problem of the novel corona virus (COVID-19) pandemic originated in Wuhan city of China. The World Health Organization declared that the outbreak of the pandemic spread to more than 190 countries around the world. The pandemic has drastically disrupted all the sectors including education sector worldwide, which affects the socio-economic conditions of the people. On this background, the study conducted and analysed impact of COVID-19 and lockdown on education sector in India

The Covid-19 has spread over whole world and compelled the human society to maintain social distancing. It has significantly disrupted the education sector which is a critical determinant of a country's economic future. As Diversity is an appropriate synonym for India. This diversity can also be seen in the Education System of the country. The vast population of the country includes a vast population of students from different geographic, ethnic and economic strata. Therefore, the requirements and resource availability of every student differs from the other. According to the UNESCO report, it had affected more than 90% of total world's student population during mid-April 2020 which is reduced to nearly 67% during June 2020. Outbreak of COVID-19 has impacted more than 120 crores of students and youths across the planet. In India, about 14 crores of primary and 13 crores of secondary students are affected which are two mostly affected levels in India. As due to increasing case of COVID 19 WHO suggested to close all the places including schools, colleges and universities became closed.

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The Indian higher education system is the third largest system after China and the USA. At present, as per the record available in All India Survey of Higher Education (AISHE), 2019, there are 993 universities, 39,931 colleges and 10,725 standalone institutions across India. Out of the total number of universities, only 14 are state open universities, one central Open University. The top eight states in terms of the highest number of colleges in India are – Uttar Pradesh, Maharashtra, Karnataka, Rajasthan, Andhra Pradesh, Tamil Nadu, Gujarat and Madhya Pradesh. Still, the number of such institutions is comparatively less against the total population of this vast country, and access to higher education by every Indian citizen is still a dream.

Classes were suspended and all examinations of schools, colleges and universities including entrance tests were postponed indefinitely. The COVID- 19 pandemic has greatly affected every sector of the society and stagnated progress. Its effect has been reflected in the Education Sector as well. The sudden closure of all educational institutions created a vacuum in the learning process. With over 150 country-wide school closures since May, more than 1 billion learners have been affected. The shift to online learning was a wise move to fill this emptiness and has shown some positive results. But, in a country like India with a limited resources and vast population, such efforts can be feasible only with planning which was left neglected due the time constraint. Educational institutions were forced to switch to the virtual world of learning that is solely the right of those who have the appropriate resources. Internet connectivity to the last root of the nation is still a far dream.

Post COVID-19 is giving us an opportunity to improve the upper education system. Institutes universities should utilize this chance to improve itself. Curriculum design, collaborations, skill development and school involvement—all should specialize in globalizing education. During the lockdown, with a view to reconsidering the idea of pedagogy from traditional chalk-and-talk method to online or blended learning, the Indian Government launched the initiative called “Bharat Padhe Online” to encourage the teachers to create digital educational content.

II. OBJECTIVES

The present research paper focused on the following -

A. To discuss various measures taken by Govt. of India for education sector during this pandemic.
B. To highlight various positive impact of COVID-19 on education.
C. To enlist some negative impacts of COVID-19.
D. To provide some effective suggestions for continuing education during the pandemic situation.
E. To find out the prospects and challenges of providing online/blended learning in India .
F. To propose the measures to be undertaken for providing quality online or blended education.

III. LITERATURE REVIEW

According to the analytics India magazine report (2020) COVID-19 pandemic online education may not be a sustainable solution in India despite of free courses. The co-founder of EdTech firm, Grey Atom summarises that, although online learning has become unavoidable, we won’t be successful until we realize that online teaching does not mean having the entire classroom on Zoom and continuing with the same delivery method. This may be subtle point but it has profound consequences. Ashutosh Kumar, Co-founder of testbook.com said that Teachers in India need to be trained in online learning and be comfortable in creating and delivering digital content. According to Ankush Singla, co- founder of Coding Ninjas comments that, Despite of the usage of quality content and various advertising tools, the technology tools has just only increased by the numbers but not by the market size in the cities of Tier 2 and Tier 3 in India. The reason for this is not the content itself, but socio-economic challenges, including lack of IT infrastructure, deployment of internet facilities, leading to limited or no internet connectivity for learners. Moreover, the gap in technological devices and methods for new users that have little to zero understanding remains uncertain. Furthermore, the absence of digital literacy and knowledge about digital payment procedures to sign up for online programs is still another challenge.

IV. METHODOLOGY

This research article is based on secondary and primary sources. Reports from various organisations like UNESCO, VOXEU on education are used to the data for this article. Various article published in economic times, Indian magazine and other secondary sources like news report, journals, govt. report are utilised in this article. To attain the objective of the paper, we intend to conduct survey.

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Various reports of national and international agencies on Covid-19 pandemic are searched to collect data for current study. As it is not possible to go outside for data collection due to lockdown, information is collected from different authentic websites, journals

Data and information presented in study are collected from various reports prepared by national and international agencies on COVID-19 pandemic. Information are collected from various authentic websites. Some journals and e-contents relating to impact of COVID-19 on educational system are referred. Therefore, to understand the feasibility of a technology-based teaching and learning, and as it has the potential to enrich the state of teaching and learning and student success, the academic analytics approach has been used during the research. Besides, through the findings of the research, policies or strategies could be adopted for the betterment of the existing education system across India so that education can be accessed by the learners in an affordable way. The academic analytics approach has been used in the study, as the purpose of the paper was to discuss the perception of the teachers/educators and learners regarding online/blended learning. Academic analytics is an approach that usually guides the researchers to explore academic problems in an empirical way. It also helps to conduct a thorough study of the problems and provide guidance to adopt the strategies to overcome the problems.

V. DATA COLLECTION

According to the latest figures released by UNESCO, some 1.3 billion learners around the world were not able to attend school or university as of March 23, 2020. UNESCO's figures refer to learners enrolled at pre-primary, primary, lower- **secondary**, and upper-secondary levels of education as well as at tertiary level. 1,379,344,914 students or 80 percent of the world's learners are now being kept out of educational institutions by country-wide closures. Another 284 million learners are being affected in some way by closures at a localized level, such as those seen in U.S. states like California and Virginia. 138 governments have now ordered country-wide closures of their schools and universities.

VI. GOVERNMENT INITIATIVES

The government (ministry of Human Resource Development) has been promoting online learning. There are several initiatives which are being implemented to promote online learning as listed in table 2. The government has announced promotion of students to next classes based on internal assessment which has not only protected students but also relieved them of the psychological burden of exams. This has also fostered the spirit for learning.

SERIAL NO.	PLATFORM NAME	CONTENT	LINK
1.	DIKSHA	80,000 e-content items in multiple Indian languages, catering to Grades 1-12. During lockdown accessed nearly 215 million times.	https://diksha.gov.in/
2.	E-PATHSHALA	It has 1886 audios, 2000 videos, 696 e- e-books (e- Pubs) and 504 Flip Books for classes 1st to 12th in different languages	http://epathshala.gov.in/
3.	NATIONAL REPOSITORY OF OPEN EDUCATIONAL RESOURCES (NROER):	Total of 14527 files including 401 collections, 2779 documents, 1345 interactive, 1664 audios, 2586 images and 6153 videos on different languages	http://nroer.gov.in/welcome
4.	SWAYAM	1990 courses covering both school (class IX to XII) And Higher Education (both UG and PG) in all subjects including engineering, humanities and social sciences, law	https://www.swayam.gov.in/
		and management courses	

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5.	SWAYAM PRABHA	32 DTH TV channels Transmitting educational contents on 24/7 basis.cover both school education (class IX to XII) And Higher Education in a wide range of subjects like engineering, vocational courses, teacher training, performing arts, social sciences and humanities subjects, law, medicine, agriculture and many more	https://www.swayamprabha.gov.in/
6.	NISHTHA	An integrated Teacher Training Portal and Mobile App	http://nishtha.ncert.gov.in/
7.	NATIONAL DIGITAL LIBRARY	digital repository of a vast amount of academic content in different formats	https://ndl.iitkgp.ac.in/

VII. POSITIVE IMPACT OF COVID-19 ON EDUCATION

Though the outbreak of COVID-19 has created many negative impacts on education, educational institutions of India have accepted the challenges and trying their best to provide uninterrupted support services to the students during the pandemic. Indian education system got the opportunity to transform from traditional system to a new online normal. The following points must be considered as the positive impacts.

- Move towards Blended Learning: COVID-19 has led to increase in adoption of digital technologies to deliver education. Educational institutions moved towards blended mode of learning. It encouraged all teachers and students to become more technologically advaced. New ways of delivery and assessments of learning opened immense opportunities for a major transformation in the area of curriculum development. It also gives access to large number of learners at the same time.

- Rise in use of Learning Management Systems: Use of learning management systems by educational institutions became a great demand. It opened a great opportunity for the companies those have been developing and strengthening learning management systems for use educational institutions.

- Enhance the use of soft copy of learning material: In lockdown situation students were not able to collect the hard copies of study materials and hence most of the students used of soft copies materials for reference.

- Improvement in collaborative Work- There is a new opportunity where collaborative teaching and learning can take on new forms. Collaborations can also happen among faculty/teachers across the world to benefit from each other.

- Rise in online meetings- The pandemic has created a massive rise in teleconferencing, virtual meetings, webinars and e-conferencing opportunities

- Enhanced Digital Literacy: The pandemic situation forced people to learn and use digital technology and resulted in increasing the digital literacy.

- Improved the use of electronic media for sharing information: Learning materials are shared among the students easily and the related queries are resolved through e-mail, SMS, phone calls and using different social Medias like WhatsApp or Facebook.

- World wide exposure: Educators and learners are getting opportunities to interact with peers from around the world. Learners adapted to an international community.

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- Better time management: Students are able to manage their time more efficiently in online education during pandemics.
- Demand for Open and Distance Learning (ODL): During the pandemic situation most of the students preferred ODL mode as it encourages self- learning providing opportunities to learn from diverse resources and customized learning as per their needs.

VIII. NEGATIVE IMPACT OF COVID-19 ON EDUCATION

Education sector has suffered a lot due to the outbreak of COVID-19. It has created many negative impacts on education and some of them are as following:

- Educational activity hampered: Classes have been suspended and exams at different levels postponed. Different boards have already postponed the annual examinations and entrance tests. Admission process got delayed. Due to long lockdown period, student suffered a loss of nearly 3 months of the full academic year of 2020-21 which is going to further worsen the situation of continuity in education and as the students would face much difficulty in resuming schooling again after a huge gap.

- Impact on employment: Most of the recruitment got postponed due to COVID-19 Placements for students may also be affected with companies delaying the on board of students. Unemployment rate was increased due to this pandemic.

IX. FINDINGS AND ANALYSIS

This study is based on primary data. The data have been collected from students, who are currently pursuing their undergraduate degrees, postgraduate degrees in different colleges and universities and students of class 11th and 12th. The online questionnaire through Google Form was prepared for collecting data among the students, about 110 responses were received. We have done the pilot study to check the validity of questionnaire. The period of study is February, 2021.

The following questions were asked from students:-

A. Do online classes affect their health?
B. Do they have access to a device for learning online?
C. How well could they manage time while learning remotely?
D. How much time do they spend each day on an average on online classes?

It has been observed from Fig-1.1 83.6% students are from UG level, 5% from PG level, 5% from 11th and 12th class and 6.4% from other courses. It has been found from Fig-1.2 that online classes affected 75.5% student's health. It has been observed from Fig-1.3 that 80.9% of the students have access to the device for learning requirements, 15.5% have but it doesn't work properly and 3.6% of the students do not have access to the device.

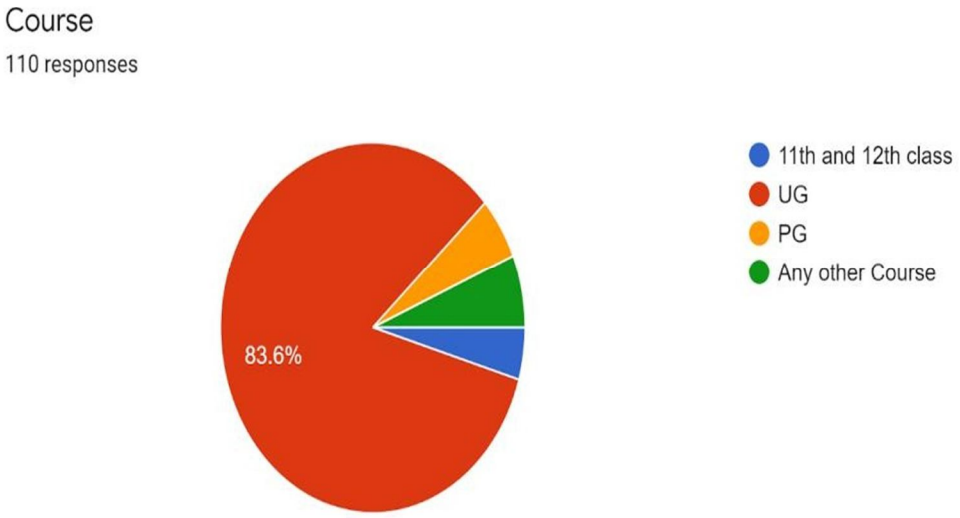


FIGURE-1.1

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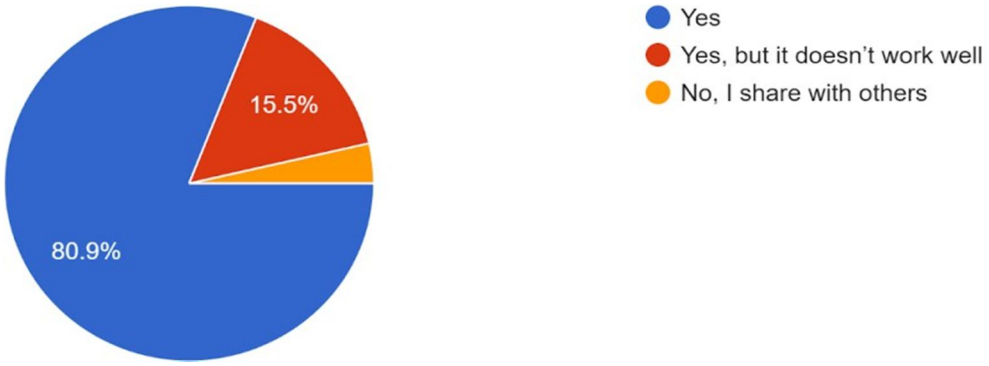


Figure-1.2

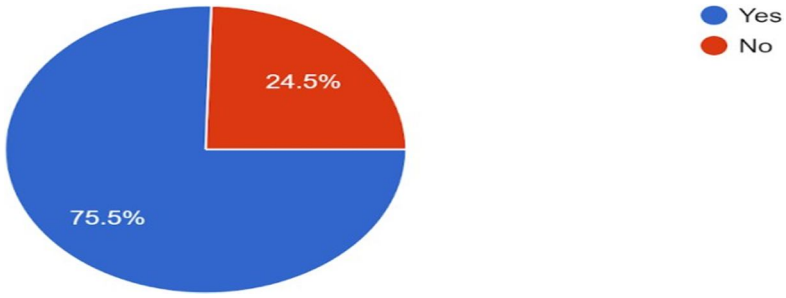


FIG 1.3

X. SUGGESTIONS

A. India should develop creative strategies to ensure that all children must have sustainable access to learning during pandemic COVID-19. The Indian policies must include various individuals from diverse backgrounds including remote regions, marginalized and minority groups for effective delivery.

B. The assistance of power supply, digital skills of teachers and students, internet connectivity aid to explore digital learning, high and low technology solutions in this pandemic situation.

C. Open-source digital learning solutions and Learning Management Software should be adopted so that the teachers can teach online.

D. There is a need to develop inclusive learning solutions particularly for the marginalized and vulnerable people. The people living in the remote areas should be focused upon by proving the knowledge of usage of technology and internet and enabling them in gaining knowledge with the help of distance learning programs.

E. The higher education sector should make strategies for developing demand-supply trends worldwide. They should also need to enhance quality and demand for higher education in India.

F. As online education helps those who are in need. Technological advancements can also help in curing the anxiety and uncertainty that is prevailing in the current time. Measures should be taken to mitigate the effects of the pandemic on job offers, training programs, internship programs, and research works. It not only helps in conducting online programs but also helps in evaluating the performance of students and employees by giving online assignments.

G. The Indian traditional knowledge is notable over the globe for its logical advancements, qualities and advantages to create sustainable technologies and medicines. The various courses under Indian Traditional Knowledge should be incorporated with the present-day standard college degree in order to serve the cause of mankind. During the time of reopening of schools in the post coved, school time allotted per student is an important factor which should be considered.

H. Machine learning and Artificial Intelligence are the emerging technologies in India is predicted to have a tremendous potential in the coming future. We cannot ignore in the period of COVID-19 crisis effective educational practice is needed for the capacity-building of young minds. Central Government and State Government need to take some measures to ensure the overall progress in the country. Time never waits for anyone and this tough time will also pass. Stay safe, stay at home.

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XI. CONCLUSION

Although the world may be shaken, the best way to maintain consistency of education and to improve information is through online learning, which appears to be a powerful tool and a sign of hope in the time of COVID-19. With the option of taking an online class at home or working from home according to your own convenience, now is definitely a time for introspection. The government will have to take tough, though calculative decision about investment in education in the coming time. After all, the today's children are future epidemiologists, physicians, nurses, researchers and specialists in the field of public health. In addition to the academic's concern, the rights of the personnel and the educators should be protected. Now we have to get back to the drawing board and be more careful about the investments in education so that the world can be prepared better to face such demanding situations in the future. Even if the COVID-19 crisis stretches longer, there is an urgent need to take efforts on maximum utilization of online platforms so that students not only complete their degree in this academic year but also to get ready for the future digital oriented environment. The concept of "work from home" has greater relevance in such pandemic situation to reduce spread of COVID-19. India should develop creative strategies to ensure that all children get equal access to online learning during COVID-19 crisis. The Indian policies must include various individuals from diverse backgrounds including remote regions, marginalized and minority groups for effective delivery of education. As online practice is benefitting the students immensely, it can be continued after the lockdown. Further detailed statistical study may be undertaken to explore the impact of COVID-19 on education system of India.

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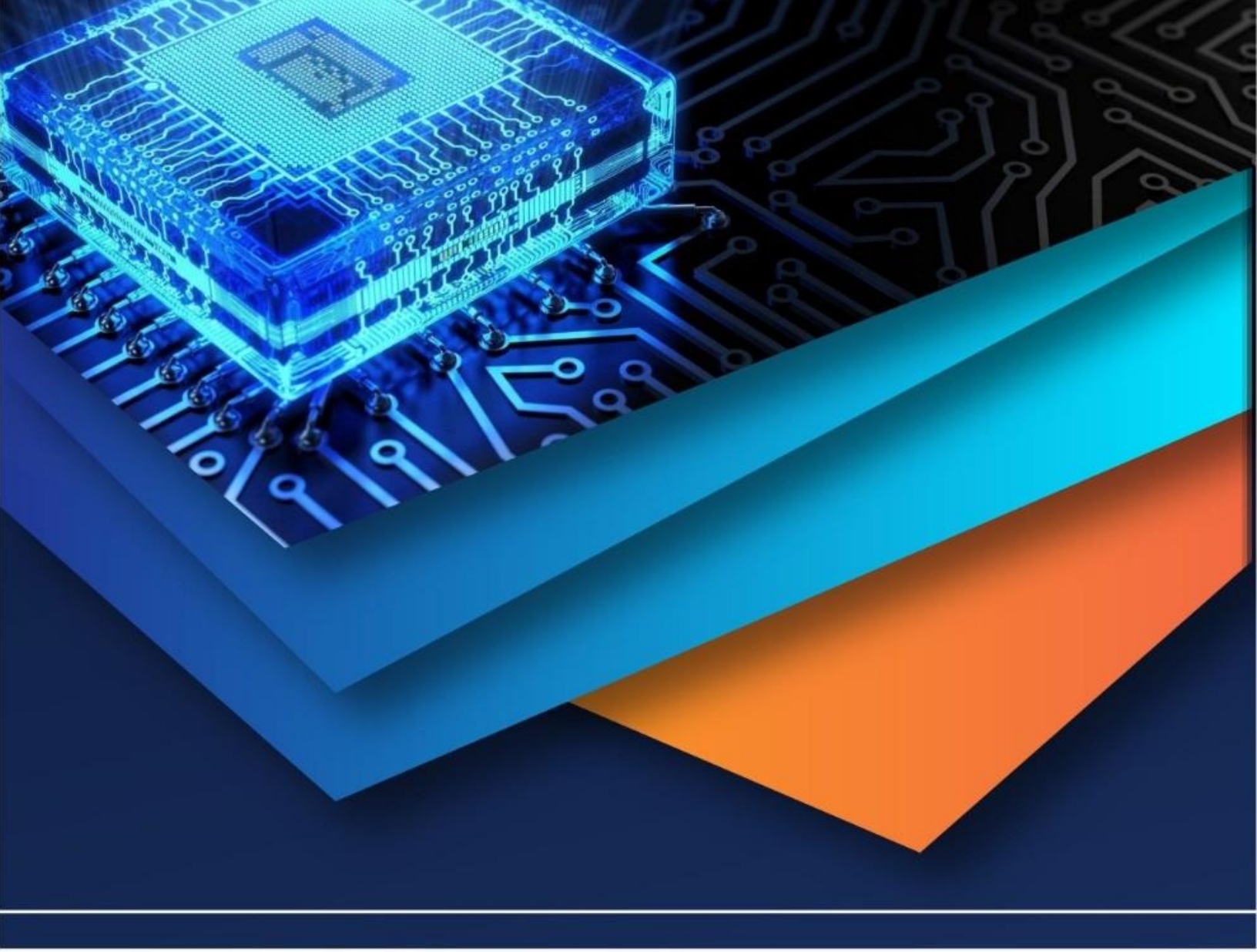
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