

# Emerging Issues in India's Higher Education During Pandemic Scenario

A. Marimuthu <sup>1</sup>, T. Balaji <sup>2</sup>

<sup>1</sup> Assistant Professor, P.G. and Research Dept. of Economics, Govt. Arts College, Melur, India

<sup>2</sup> Assistant Professor, P.G. Dept. of Computer Science, Govt. Arts College, Melur, India

**Abstract** - The pandemic is expected to have enormous economic consequences, and it makes a devastating impact on global education. The spread of pandemic Covid-19 has drastically disrupted every aspects of human life including education. It has created an unprecedented test on education. Many educational institution campuses around the world are closed and teaching-learning has moved online. The Covid-19 pandemic is not only a global health problem but also has severe impacts on human and social life, including employment, education, agriculture and the other spheres of the world economy. In India, all academic activities were suspended after the announcement of the University Grants Commission (UGC) on 19 March to postpone examinations in all universities until the end of March. All the central universities like the University of Hyderabad announced to defer all academic activities and close their hostels and even private universities. As Covid-19 has influenced global higher education, the universities across the world have been responding to Covid-19 in different ways. This paper aims to explore the issues of social justice in the context of digitalization of India's Higher education after Covid-19 pandemic period. It is reported that only 5 percent higher education institutions in India could shift to online instruction with minimal on-campus presence and most higher education institutions have made the transition to online mode. This paper intends to critically focus the emerging issues related to the impact of the Covid-19 pandemic in India's higher education and the immediate shift of education to the online mode of teaching and learning. The paper is based on analysis with careful consideration of e quality of information sources.

**Index Terms** - HEIs, UGC, MHRD, GDP, IUCs and CEC

## I. INTRODUCTION

According to UNESCO around 1.3 billion learners across the world were not able to attend school or university as of March 23, 2020 and current UNESCO statistics has prescribed this figure at over 1.5 billion.

Both students and teachers are under the pressure of not losing the academic time and they are trying to re-design the teaching-learning techniques by changing it to an online mode, which is the only possible alternative at the moment. The Hindu (April 14, 2020) states that online learning is an amalgamation of various pedagogical models instead of anyone single model, as it is a specialized learning science that includes delivery of content, behavioral analytics, learning psychology and assessments. This enables to measure the learning progress of individuals and therefore, a 'hand-stitched' mechanism of delivery is the need of the hour.

The focus is not on delivering the content but ensuring effective opportunities for learning. The shift is, thus, from a teacher-centric approach to a learner-centric one. The aim is always to would the learners in such a manner that they are able to understand concepts better, think effectively and apply them practically. Thus, it becomes extremely essential for facilitators to further orient themselves to become efficient disseminators of knowledge on digital platforms.

In India, the first affected case of Covid-19 was detected on 30 January 2020 in the state of Kerala and the affected had a travel history from Wuhan, Chin. According to the UNESCO report, Covid-19 has affected nearly 68% of total world's student population as per the data taken during the first week of June 2020. Outbreak of Covid-19 has impacted about 1.2 billion students and youths across the globe by the closure of school and universities. Several other countries have also implemented localized closures which impacted millions of additional learners. In India, more than 32 crores of students have been affected by various restrictions and the nationwide lockdown was announced for Covid-19 (Wikipedia). Most Governments around the world have temporarily closed educational institutions in an attempt to control

the spread of the pandemic Covid-19. This worldwide closure has impacted drastically on the world's student population.

## II. OBJECTIVES

The paper intends to critically understand the issues related to the impact of the Covid-19 pandemic on higher education, the sudden shift of education to the online mode of teaching and learning and the opportunities and challenges of online mode of education. The present study is focused on the following objectives:

- To study the impact of Covid-19 on higher education sector
- To enlighten various emerging approaches of India for higher education
- To enlist post Covid-19 trends of HEIs
- To focus on the crisis of higher Education
- To enlighten various measures taken by Govt. of India for education sector during this pandemic.
- To highlight various positive impacts of COVID-19 on education
- To enlist some negative impacts of COVID-19
- To offer some effective suggestions for continuing education during the pandemic situation

## III. METHODOLOGY

Various reports of national and international agencies on Covid-19 pandemic have been searched to collect data for the current study. As it is not possible to go outside for data collection due to lockdown, information are collected from different authentic websites, journals and e-contents relating to the impact of Covid-19 on higher educational system of India.

## IV. CHALLENGES AND FAVOURABLE CIRCUMSTANCES OF COVID-19 ON HIGHER EDUCATION

Usually, this is the time young students write entrance exams, consider which colleges to apply in India or make plans for studies abroad. But there's nothing usual about the time today. The Covid-19 pandemic has shocked the world. The pressure on students and higher education institutions is high. Schools and universities have been closed and exams are postponed. Classrooms are going virtual and

admissions for the upcoming academic year are fraught with confusion. According to UNESCO over 320 million students in Indian schools and colleges are currently impacted.

### A. The Method of Online learning

Yet in a developing country like India with vast disparity in socio-economic backgrounds of students and the quality of educational institutions, the shift has not been easy. The digital divide has been further widened the gap and urgent attention is needed from both public and private sector players, as the crisis continues. Good teachers, refreshed curricula and effective tools will ensure students stay involved and active in the learning process.

### B. Barrier to Study Abroad

As per reports, India is the second-largest source of international students in the world. This usual exodus is likely to transform—at least in the immediate few years—to an influx into Indian institutions as given travel restrictions and health risks.

This means that crores of rupees and resources spent in foreign education could potentially be retained in the country, as more students look towards options at home. While international institutions might bear the brunt of the change, it is a remarkable opportunity for India to enhance its capacities and offer quality education at par with global standards.

### C. The Effects of an Attenuation Global Economy

As unemployment is predicted to increase and the financial capacity of Indian homes comes under stress, the country can expect a drop in enrolments and challenges with tuition fees. Public institutions too, may be under threat of reduced funding. On the flipside, the pandemic could also prompt reform in fee structures and creation of more cost-effective programmes.

### D. Emerging of New learning process

Digital learning is leading the charge as a mainstay, and many new trends have been picking up momentum across the globe. Multidisciplinary and modular pedagogy that afford transferable skills and customized learning will succeed. Post-pandemic times could see a blend of e-learning and mainstream face-to-face teaching with a boost from traditional universities and the education sector.

### E. New Global Collaboration as an Initiative

Opportunities for student mobility and practical exposure through exchange programmes, internships, participation in conferences, and more could likely be off the table for some time. Innovative new forms of collaboration and alternative paradigms are needed to drive learning, research and teaching. Sharing of knowledge between institutions globally through joint-teaching, virtual guest lectures, etc. could give students an enriched global perspective in these difficult times.

#### V. EFFECT OF COVID-19 ON HIGHER EDUCATION IN INDIA

The spread of pandemic Covid-19 has definitely upset each part of human life including training. It has made an extraordinary test on training. In numerous instructive organizations around the globe, grounds are shut and educating learning has moved on the web. Internationalization has eased back down significantly. In India, around 32 crore students halted to move schools/universities and every instructive action finished. Regardless of every one of these difficulties, the Higher Education Institutions (HEIs) have responded emphatically and figured out how to guarantee the congruity of instructing learning, exploration and administration to the general public with certain devices and methods during the pandemic. A few estimates taken by HEIs and instructive specialists of India to offer consistent instructive types of assistance during the emergency are examined. Due to Covid-19 pandemic, numerous new methods of learning, new points of view, new patterns rise and the equivalent may proceed, as we proceed to another tomorrow.

The Covid-19 pandemic encouraged the whole society on how need is the mother of development by permitting instructive organizations to embrace internet learning and present a virtual learning society. The pandemic has been guiding the instruction area to forward with mechanical development and headways. The pandemic has essentially upset the advanced education segment. An enormous number of Indian understudies who have tried out numerous Universities abroad, particularly in most noticeably awful influenced nations are currently leaving those nations and if the circumstance continues, over the long haul, there will be a critical decrease in the interest of worldwide advanced education moreover.

The ongoing pandemic has made an open door for change in instructive methodologies and presentation of virtual training in all degrees of training. As we don't have a clue how long the pandemic circumstance will proceed, a steady move towards the web/virtual training is the interest of the current emergency. UGC (University Grants Commission) and MHRD (Ministry of Human Resource Development) of have taken numerous virtual stages with online vaults, digital books and other web-based educating/learning materials. A mix of the conventional innovations (radio, TV, landline telephones) with portable/web advancements to a solitary stage with all vaults would upgrade better openness and adaptability to training. This would include redesigning the administration stage to empower it to meet the necessary volume of instructive requests of understudies. All specialist organizations should be assembled to give legitimate access to the instructive help stages to the burdened gatherings of populace moreover. Virtual training is the most favoured method of instruction during this season of emergency because of the flare-up of Covid-19. The post-Covid-19 instruction is by all accounts training with broadly acknowledged on the web/virtual instruction which may be an equal arrangement of instruction. The effects are:

- The corona virus (Covid-19) crisis and the resulting lockdowns have affected nearly every sector of the global economy, but some have been toppled. One of these is travel and tourism; another is the higher education sector
- Even as lockdowns ease, campus life will not return to normal. Although domestic applications may remain high, international students will be scarce, while many institutions now intend to do at least some of their teaching online.
- Higher education institutions face multiple hits on their income as a result of the corona virus crisis, including the probable loss of foreign students
- With jobs scarce, domestic student applications will remain steady in the short term, but campus life will not return to normal. Institutions will be under even more pressure to offer value for money.
- This shift would expose the sector with more external competition and only the most prestigious institutions likely to retain market share. Fixed costs will remain high.

- The long-term implications of the corona virus crisis could be far-reaching. With finances shaken by the crisis, some institutions may no longer be viable, while others will need to rethink their business model entirely

## VI. CRISIS OF HIGHER EDUCATION

The corona virus pandemic and resulting lockdowns have affected nearly every sector of the global economy, but some have been upended. One of these is the higher education sector. Students have gone home, staffing has been reduced, and many academics are now working from home. Even as lockdowns ease, campus life will not return to normal. Although domestic applications may remain high, international students will be scarce, while many institutions now intend to do at least some of their teaching online. The long-term implications could be far-reaching. The finances shaken by the crisis of India's higher education in GDP percentage is shown in the Table I:

TABLE I: CRISIS OF INDIA'S HIGHER EDUCATION IN GDP PERCENTAGE

Crisis of Higher Education in India			
Year	GDP (%)	Year	GDP (%)
2000	4	2013	6.2
2001	5	2014	6.3
2002	4	2015	6.6
2003	8	2016	8
2004	8	2017	7.8
2005	8	2018	7.6
2006	8	2019	5.2
2007	7	2020	4
2008	3	2021	6.4
2009	8.2	2022	6.2
2010	8.8	2023	5.8
2011	5.5	2024	6
2012	5.8	-	-

Crisis of India's higher education in GDP Percentage is shown in the following figure 1:

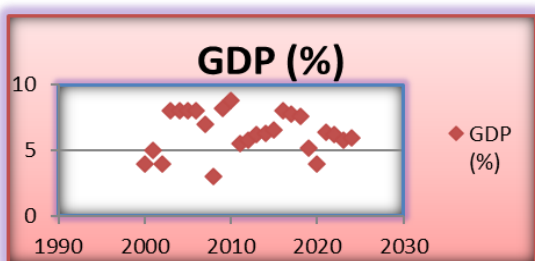


Figure 1: Crisis of India's higher education in GDP Percentage

Pandemic Covid-19 has severely affected the total educational system of India as well as the globe but some of the most impacted areas of higher education of India. The total students sector affected Covid-19 is shown in the following Table II:

Table II: Total Students Affected Covid-19 in India

Total Students Affected Covid-19 in India	
Sector	Affected (%)
Preprimary	5.5
Primary	35
Secondary	36
Higher Education	23.5

The institutions got closed with cease of educational activities and created many challenges for the stake holders. So, the various activities like admission, examinations, entrance tests, competitive examinations conducted by various boards/schools/colleges/ universities are postponed. Many entrance tests for higher study got cancelled which created a great challenge in the life of a student of higher education. The primary challenge was to continue teaching learning process when students, faculties and staff could no longer be physically presenting the campuses. The percentage of total education sector affected Covid-19 in India is shown in the following figure 2:

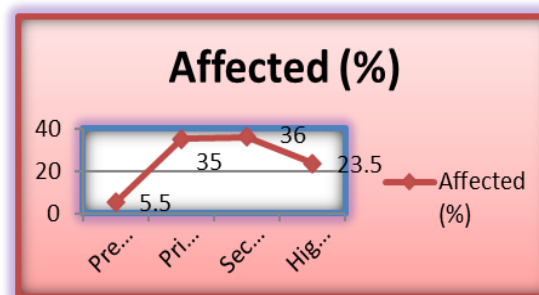


Figure 2: Percentage of Total Education Sector Affected in Covid-19

## VII. IMPACT ON HIGHER EDUCATION

Pandemic Covid-19 has severely affected the total educational system of India as well as the globe but some of the most impacted areas of higher education of India are as pointed below.

### A. New Vision for Educational System

The various activities like admission, examinations, entrance tests, competitive examinations conducted by various boards/schools/colleges/ universities are postponed. The primary challenge is to continue teaching learning process when students, faculties and staff could no longer be physically present on the campuses. Covid-19 has accelerated the adoption of digital technologies to deliver education. It encouraged all the teachers and students to become more expertise knowledge. The HEIs have started conducting orientation programmes, induction meetings and counseling classes with the help of different e-conferencing tools like Google Meet, Skype, Youtube live, Facebook live, WebEx etc. to provide support services to the students.

This initiative has taken to create an effective virtual environment of teaching learning and to create motivation among students for online activities. The teachers and students have improved the use of electronic media for sharing information by making use of WhatsApp, Google drive, Telegram, Twitter etc. Students are advised to submit the scanned copies of the assignments to the institution through email. Institutions have also started receiving internship reports and projects through email during the lockdown of Covid-19.

#### B. An Innovative Research Thinking

Some joint research works or project works are made complicated to complete. Some scientific laboratory testing/research works could not be conducted. If we look at the positive side, academicians have got much time to improve their theoretical research work. Academicians have got acquainted with technological methods and improved their research. Webinars and e-conferences have become normal methods for sharing expertise among students and academicians around the globe with similar issues. They have enhanced their technical skill and could get the scope for publishing articles in journals and publishing books in this free time.

#### C. The Problem in Assessment Part

The cancellation of assessments has negative impact on students' learning. Many institutions have been managing the internal assessments through online mode using different digital tools but the postponement of the external assessments, has a direct impact on the educational and occupational future of

students' life. This uncertainty has created anxiety among students, as they are stuck in the same grade/class without promotion. Similarly, many students who had appeared final/board examinations would suffer a lot, as by the time they get their certificates, it might be too late for them to apply for the forthcoming academic year in other countries due to lockdown.

#### D. Slowdown in Job Opportunities

In India, there is no recruitment in Govt. sector and fresh graduates are in pressure of fearing withdrawal of job offers from corporate sectors because of the pandemic situation. Many students may lose their jobs from India and overseas. The passed out students may not get their job outside India due to various restrictions caused by Covid-19. All these facts imply towards increase of unemployment rate due to this pandemic.

### VIII. DIGITAL INITIATIVES OF UGC & MHRD FOR HIGHER EDUCATION DURING COVID-19

The University Grants Commission or UGC, national higher education regulator, has last week released a list of initiatives of the MHRD, UGC and its Inter University Centres (IUCs) - Information and Library Network (INFLIBNET) and Consortium for Educational Communication (CEC) and by using which, the academic community can utilise their time, as the country is in a lockdown due to the corona virus outbreak. The initiatives include SWAYAM, MOOCs etc. These resources, which are in the form of digital platforms, can be accessed by the teachers, students and researchers in Universities and Colleges for broadening their horizon of learning. Following is the list of some of the initiatives along with their access links:

#### A. SWAYAM Online Courses

The <https://storage.googleapis.com/uniquecourses/online.html> provides access to the best teaching learning resources which were earlier delivered on the SWAYAM Platform may be now viewed by any learner at free of cost without any registration. Students/learners who registered on SWAYAM ([swayam.gov.in](http://swayam.gov.in)) in January 2020 semester can continue their learning as usual.

#### B. UG/PG MOOCs

The [https://ugcmoocs.inflibnet.ac.in/ugcmoocs/moocs\\_courses.php](https://ugcmoocs.inflibnet.ac.in/ugcmoocs/moocs_courses.php) hosts learning material of the SWAYAM UG and PG (Non-Technology) archived courses.

#### C. e-PG Pathshala

The <https://epgp.inflibnet.ac.in> hosts high quality, curriculum-based, interactive e-content containing 23,000 modules in 70 Post Graduate disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences.

#### D. Gyandarshan

The (<http://www.ignouonline.ac.in/gyandarshan/>) is a web based TV channel devoted to educational and developmental needs for Open and Distance Learners. A web-based TV channel have been devoted to educational and developmental needs of the society

#### E. Gyandhara

The (<http://ignouonline.ac.in/Gyandhara/>) is an internet audio counseling service offered by IGNOU. It is a web radio where students can listen to the live discussions by the teachers and experts on the topic of the day and they can interact with them through telephone, e-mail ([gyandhara@ignou.ac.in](mailto:gyandhara@ignou.ac.in)) and through chat mode.

#### F. e-Content Courseware in UG Subjects

The e-content courseware related to 87 Undergraduate courses with about 24,110 e-content modules is available on the CEC website at <https://cec.nic.in>.

#### G. SWAYAMPRAKHA

The <https://www.swayamprabha.gov.in/> is a group of 32 DTH channels providing high quality educational curriculum based course contents covering diverse disciplines such as arts, science, commerce, performing arts, social sciences and humanities subjects, engineering, technology, law, medicine, agriculture etc to all teachers, students and citizens interested in lifelong learning across the country. These channels are free to air and can also be accessed through your cable operator.

#### H. CEC-UGC YouTube channel

The <http://www.youtube.com/user/cecedusat> provides access to unlimited educational curriculum based lectures absolutely free.

#### I. National Digital Library

The <https://ndl.iitkgp.ac.in/> is a digital repository of a vast amount of academic content in different formats and provides interface support for leading Indian languages for all academic levels including researchers and life-long learners, all disciplines, all popular forms of access devices and differently-abled learners.

#### J. Shodhganga

The <https://shodhganaa.inflibnet.ac.in> is a digital repository platform of 2,60,000 Indian Electronic Theses and Dissertations for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access.

#### K. e-Shodh Sindhu

The <https://ess.inflibnet.ac.in/> provides current as well as archival access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under I2(B) and 2(f) Sections of the UGC Act.

#### L. VIDWAN

The <https://vidwan.inflibnet.ac.in/> is a database of experts. It provides information about experts to peers, prospective collaborators, funding agencies, policy makers and research scholar in the country. It is hoped, that these ICT initiatives, which cover a broad range of subjects and courses prepared by experts, will provide an excellent learning experience to all of us. For any queries or clarifications UGC, INFLIBNET and CEC may be contacted at [eresource.inflibnet@gmail.com](mailto:eresource.inflibnet@gmail.com) and [eresource.cec@gmail.com](mailto:eresource.cec@gmail.com) respectively. The UGC has said in a statement.

#### M. National Educational Alliance for Technology (NEAT)

The (<https://neat.aicte-india.org/>) is an initiative for developing the skills of learners in latest technologies through a Public-Private partnership model between the Government (through its implementing agency AICTE) and the Education Technology companies of India. It brings out the best technological products in education pedagogy on a single platform for the convenience of learners.

#### N. SAKSHAT

The (<https://sakshat.ac.in/>) is one Stop Education Portal for addressing all the education and learning related needs of students, scholars, teachers and lifelong learners. The portal provides the latest news, press releases, achievements etc related to Ministry of HRD. Hence, one can visit SAKSHAT to know the world of online learning.

#### IX. NEGATIVE IMPACT OF COVID-19 ON HIGHER 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 pointed below:

##### A. Educational Activity Hampered

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

##### B. Impact on Employment

Most of the recruitments have got postponed, due to COVID-19. Placements of students may also be affected with the companies delaying the on board of students. Unemployment rate is expected to be increased due to this pandemic. In India, there is no recruitment in Govt. sector and fresh graduates have got fear withdrawal of their job offers from private sectors because of the current situation. The Centre for Monitoring Indian Economy's estimates on unemployment shot up from 8.4% in mid-March to 23% in early April and the urban unemployment rate to 30.9%. When the unemployment increases, then the education gradually decreases as people struggle for food rather than education.

##### C. Unprepared Teachers/Students for Online Education

Not all teachers/students are good at online teaching/education or at least not all of them have been ready for this sudden transition from face-to-face learning through online learning. Most of the teachers are just conducting lectures on video platforms such as

Zoom, Google meet etc. which may not be real online learning without any dedicated online learning platform.

##### D. Reduced Global Employment Opportunity

Some may lose their jobs from other countries and the passed out students may not get their job outside India, due to restrictions caused by COVID-19. Many Indians might have returned home after losing their jobs in overseas due to COVID-19. Hence, the fresh students who are likely to enter the job market shortly may face difficulty in getting suitable employment. Many students who have already got jobs through campus interviews may not be able to join in their jobs, due to lockdown. The Indians who have been doing their jobs abroad may lose their jobs. Recent graduates in India also fear for withdrawal of job offers from corporate sectors because of movement restriction in the current pandemic situation

##### E. Increased Responsibility of Parents to Educate their Wards

Some educated parents are able to guide but some may not have the adequate level of education to teach children in the house.

##### F. Loss of Nutrition Due to School Closure

Mid day meals is a school meal programme of the Government of India and it is designed to provide nutritional food to school-age children nationwide. The closure of schools has serious implications on the daily nutrition of students, as the mid-day meal schemes have temporarily been shut. Various studies have pointed out that mid-day meals are also an important contributing factor for increased enrolments in the schools

##### G. Access to Digital World

As many students have limited or no internet access and many students may not be able to afford computer, laptop or supporting mobile phones in their homes, the online teaching-learning may create a digital divide among students. The lockdown has hit the poor students very hard in India as most of them are unable to explore online learning according to various reports. Thus, the online teaching-learning method during pandemic COVID-19 may enhance the gap between rich/poor and urban/rural.

#### H. Access to Global Education

The pandemic has significantly disrupted the higher education sector. A large number of Indian students who have enrolled in many Universities abroad, especially in worst affected countries are now leaving those countries and if the situation persists, in the long run, there will be a significant decline in the demand of international higher education.

#### I. Payment of Schools, Colleges fee got Delayed

During this lockdown, most of the parents have been facing unemployment situation. Hence, they may not be able to pay the fee for that particular time periods and thus may affect the private institutes.

this would be barely sufficient. Recharging or going for bigger data packs may be affordable for students from privileged backgrounds. This would affect students from economically weaker backgrounds, since with the lockdown, many of these students' parents have lost their jobs and hence, making it has become even more difficult for them.

Digital education may well be the way of the future, but that is a future where all the groundwork has been laid, and no student is negatively affected. In today's India, online education is not really feasible, even if it is a measure adopted by the education system as a temporary method of coping with the pandemic.

### X. PRACTICAL ISSUES IN ONLINE HIGHER EDUCATION IN INDIA

In order for me to discuss the feasibility of online education in India, it is very simple to discuss practical issues from my own personal experience, namely in terms of the institution.

- So far, the impact of moving online (since March 2020) has been minimal. Teachers have used Google Classrooms for the online submission of assignments and other tasks to be completed for internal assessment, but the completion of the term's syllabus has not taken place. This is mainly due to the fact that prior to the pandemic, the institution itself has not taken measures to educate the professors or students on the modalities of online education.
- There is no dedicated IT cell in the college to provide technical support. It would be useful, if such a cell exists so that the experts could create a centralized hub for students and teachers to visit in order to access notes, library books or resources of any sort. Even after two months of lockdown, there is no such expertise in College, and the situation in other institutions is likely to be there is no different.
- Even if the above could be taken care of, there is the matter of feasibility. It is simply not possible for all the students in a class to own personal computers or a Smartphone.
- There are issues related to proper internet connection. Students typically survive on a daily ration of 2 GB data or less. With online education,

### X. SUGGESTIONS

- Policy should be adopted by Government/educational institutions to provide free internet and free digital gadgets to all the learners in order to encourage online learning as a result of which people would get engaged and remain safe during pandemic
- The quality of programmes may differ across different online learning platforms. Therefore, establishment of quality assurance mechanisms and quality benchmark for online learning programmes must be developed and offered by HEIs in India keeping in view of rapid growth of the online learning platforms
- Academic assessment of the students may be done through online mode or through quizzes and small projects
- During this pandemic, the HEIs should focus more on virtual educational activities including television, radio and web-based education
- Indian traditional knowledge is well known for its scientific innovations, values and benefits
- To develop sustainable technologies and this knowledge system in different fields should be integrated with a present-day mainstream higher education system.

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.



- Immediate measures are required to reduce the effects of the pandemic on job offers, internship programs and research projects.
- Many online learning platforms offer multiple programmes on the same subjects with different levels of certifications, methodology and assessment parameters. So, the quality of programmes may differ across different online learning platforms. Therefore, establishment of quality assurance mechanisms and quality benchmark for online learning programmes must be developed and offered by Higher Education Institutions (HEIs) in India keeping in view of rapid growth of the online learning platforms
- Across the globe, Indian traditional knowledge is well known for its scientific innovations, values and benefits to develop sustainable technologies and this knowledge system in different fields should be integrated with a present-day mainstream higher education system.
- Government and educational institutes should plan to continue the educational activities maintaining social distancing. 30-40% students and teachers may attend schools/colleges in two shifts per day to carry out educational activities by obeying the guidelines of COVID-19.
- At current times, access to technology and internet are urgent requirements. Hence, the digital capabilities and the required infrastructure must reach the remotest and poorest communities to facilitate the students to continue their education during the pandemics. There is a need to deploy public funds to fix the internet gap and ensure that the students continue to learn digitally. The state governments/private organizations should come up with ideas to address this issue of digital education.
- Some significant issues associated with distance learning strategies like the availability and access to digital devices with internet connectivity, the need for safe learning spaces, creating capabilities for teachers, families and students to operate and navigate digital devices, and engaging lesson plans for disabled students and other marginalized groups should be addressed by Govt. and the stakeholders.

## XI. CONCLUSION

As online classes have been used as an alternative to regular classes under the circumstances of the Covid19 pandemic, internet and technology services should be considered as a necessity and not a luxury. Access to online libraries, books and journals should be created to promote learning that is happening remotely. As it is not known how long the pandemic situation will continue, a gradual move towards the online/virtual education is the demand of the current crisis. UGC and MHRD have launched many virtual platforms with online depositories, e-books and other online teaching/learning materials. Combination of the traditional technologies (radio, TV, landline phones) with mobile/web technologies to a single platform with all depositories would enhance better accessibility and flexibility to education. This would involve upgrading the service platform to enable to meet the required volume of educational demands of students. All service providers need to be mobilized to provide proper access to the educational service platforms to the disadvantaged groups of population also. Virtual education is the most preferred mode of education at this time of crisis, due to the outbreak of Covid-19.

COVID-19 has impacted immensely on the education sector of India. Though it has created many challenges, various opportunities are also evolved. The Indian Govt. and different stakeholders of education have explored the possibility of Open and Distance learning (ODL) by adopting different digital technologies to cope up with the present crisis of COVID-19. India is not fully equipped to make education reach all the corners of the nation via digital platforms. The students who aren't privileged like the others will suffer, due to the present choice of digital platforms. But, universities and the government of India are relentlessly trying to come up with a solution to resolve this problem. The priority should be to utilize digital technology wonder to create an advantageous position for millions of young students in India. It is the need of the hour for the educational institutions to strengthen their knowledge and Information Technology infrastructure to be ready for facing COVID-19 like situations.

## REFERENCES

- [1] Pravat Kumar Jena, "Impact of Covid-19 on higher education in India", International Journal of Advanced Education and Research, Vol. 5, Issue 3, pp. 77-81, 2020.
- [2] DNS Kumar, "Impact of COVID-19 on Higher Education", International Journal for Innovative Research Vol. 20, Issue 5, pp. 80-91, 2020.
- [3] Pravat Ku Jena, "Challenges and Opportunities created by Covid-19 for ODL", A case study of IGNOU, International Journal for Innovative Research in Multidisciplinary, Vol. 6(5), pp. 217-222, 2020.
- [4] Pravat Ku Jena, "Impact of Pandemic COVID-19 on Education in India", Purakala Case Study, Vol. 6, pp.142-149, 2020
- [5] MHRD Notice, "COVID-19 Stay Safe: Digital Initiatives", Vol. 25, 2020
- [6] MHRD Online, "Online Learning Resources of MHRD", Vol. 6, 2020
- [7] UGC Academic-Calendar Notice, "UGC Guidelines on Examinations and Academic Calendar in view of COVID-19 Pandemic", No. 5, 2020.
- [8] Pravat Ku Jena, "Online Learning during Lockdown Period for Covid-19 in India", International Journal of Multidisciplinary Educational Research, Vol. 5(8), pp. 82-92, 2020.
- [9] Sandhya Ramesh, "Covid-19 to Never go away and become Endemic- like HIV, Malaria and Measles", Vol. 2, 2020.
- [10] Crawford, J., Henderson, K. B., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. A., & Lam, S., "COVID-19 Higher Education Intra-period Digital Pedagogy Responses, Journal of Applied Learning & Teaching, Vol. 3(1), pp. 1-20, 2020
- [11] The Indian Express, "Digital Divide May Turn Shift to Online Classes Operational Nightmare", Warn Experts, June 8, 2020.
- [12] McCarthy, N., "COVID-19's Staggering Impact on Global Education". The World Economic Forum COVID Action Platform, July 23, pp. 220-280, 2020
- [13] Tripathi, S. K., & Amann, W. C., "COVID-19 and Higher Education: Learning to Unlearn to Create Education for the Future", United Nation Journal, Vol. 23, 2020

[14] Sarkar, A., "Online Classes during lockdown in Bengal", Journal of Education and Research, Vol. 23, 2020.

[15] MILLER, M. D., "Online Learning: In Minds Online: Teaching Effectively with Technology", Harvard University Press, pp. 19-41, 2014

#### AUTHOR PROFILES



Dr. A. MARIMUTHU received post graduate degree M.A. (Economics) in 1995 from Madurai Kamaraj University, Madurai and P.G.D.C.A. post graduate diploma in 2000 from Madurai Kamaraj University, Madurai and Ph.D. (Economics) in 2002 from Madurai Kamaraj University, Madurai. He has 21 years of experience in the field of teaching & research. He has been working as an Assistant Professor in Government Arts College, Melur since 2007. His areas of interest are Environmental Economics and Micro Economics. He has published 25 research papers in reputed international and national journals. As an educationist he has conceptualized and implemented a new curriculum with layered learning, hands on work and research orientation as a part of under graduate education and post graduate education. He is an active member of 'Board of Studies' and various committees of colleges as well as universities in Tamil Nadu



Dr. T. BALAJI received post graduate degree (M.C.A.) in 1999 from Alagappa University, Karaikudi, M.Phil. degree in 2003 from Manonmaniam Sundaranar University, Tirunelveli, M.Tech. degree in 2007 from Manonmaniam Sundaranar University, Tirunelveli and Ph.D. (Computer Science) degree in Madurai Kamaraj University, Madurai. He has 21 years of experience in teaching and research. He has been working as an Assistant Professor at Govt. Arts College, Melur since 2007. His areas of interest are Medical Image Processing, Signal Processing, Remote Sensing and Image Classification. He has published and presented over 24 research papers in international and national journals of repute. As an educationist he has conceptualized and implemented a new curriculum with encrusted learning, energetic work

and exploration project as a part of under graduate education and post graduate education. He is an active member of 'Board of Studies' and various committees of colleges as well as universities in Tamil Nadu