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PHYSICAL DISTANCE MANAGEMENT SYSTEM (PDMS) AS A PREVENTIVE
MEASURES IN VIEW OF COVID-19 PANDEMIC IN HIGHER EDUCATION
INSTITUTIONS OF THE WORLD.

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ABSTRACT

At present around 250 million students are undertaking higher education worldwide in the age group 18-23. Entire world is struggling to control the pandemic COVID-19 by various preventive measures as per the WHO guidelines. The problem is worsened since there is no specific vaccine identified as a controlling parameter to COVID-19. The entire world is fearing to get dragged into a recession and its ramification is going have an indelible impact on every sector of human perceptions in the present situation of Lock Down. It's important to protect the young aspiring minds (YAMs) of the entire world through some common mechanism in Higher Education Institutes (HEIs). In present scenario, most of HEI is stuck into this lock down position in most of the nations. The examinations of spring semester in the HEIs is affected and beginning of new academic year 2020-21 is going to get delayed. Thus, there is need to streamline and restructure the academic schedule of coming academic year 2020-21 taking into consideration, the safety of young aspiring Minds. We feel Physical Distance Management System (PDMS) and some preventive measures in the line of guidelines given by WHO to prevent from the spread of COVID-19 Pandemic. It should be implemented across the worldwide HEIs, once the lock down is lifted in respective nation. This will work as a post COVID-19 strategy till the specific vaccine will come out to control this pandemic.

Keywords: WHO, PDMS, COVID-19, HEIs, YAMs.

I. INTRODUCTION

Corona virus disease 2019 (COVID-19) is highly communicable disease first identified in the month of December 2019 in Wuhan, which is the capital of Hubei province of China. The disease is spreading globally ever since the first report, causing the declaration of COVID-19 as pandemic by the World Health Organization (WHO)[1]. Corona virus has very peculiar shape of spiked ball. These spikes have ability to identify and adhere to a protein ACE2 on the surface of human cells. The first step of infection is the one when contours of SARS-CoV-2's spikes stick strongly to ACE2. Corona virus activation on human cell occurred when two halves of spikes are separated; only then can the virus enter a host cell. In SARS-CoV-2, the bridge that connects the two halves and remain in inactive stage, can be easily cut and made activated by an enzyme called furin, which is made by almost most of human cells. This double facilitation of coronavirus makes it more dangerous and so difficult to control the spread of this virus [2].

The problem is compounded since we do not have specific vaccine identified as a controlling parameter to COVID-19. The pandemic COVID-19 is taking a mammoth toll of precious human life across the world with more than 2.7 million people getting infected and nearly 0.2 million deaths reported (Worldwide Scenario of COVID-19). The pandemic COVID-19 is going to affect anything and everything that is visible, but it is going to affect beyond our vision also. The world is fearing to get hauled into a recession and its ramification is going have an indelible impact on each and sector of human perceptions. The YAMs of this world who are studying in the HEI's needs to be protected since they are the future of this planet. The world will either have to wait till the vaccines are available or

we have to devise certain backup plan to cope up with the present situation so that the formal education in the HEI's is brought back to normal.

II. OBSERVATIONS

2.1: Higher education population of YAMs in the entire world.

The proportion of students taking higher education in the entire world is rising every day which is a very good sign for development of science and technology, which is explicitly mentioned in the UNESCO reports [3]. In the year 2020 around 250 Million *young aspiring minds* (YAMs) in the age group of 18-23 years are taking higher education in the entire world and by the year 2030, the population of (YAMs) will rise up to 370 Million. It means that higher education is of great concern since the youth is the future of this planet. But in sight of COVID-19 Pandemic entire HEI's are struggling to overcome this pandemic situation. The article published in University World News projects that the COVID-19 is drastically going to affect around 40 % of the international students who might be altering their plans to study abroad [4]. In order to contain the spread and casualties by COVID-19, several countries are following harsher lockdown, several prospective international students are rethinking about their plans to study abroad [5]. COVID-19 will not affect student's enrolment but also it will deter global collaboration [5]. Internationalization of Indian HE after COVID-19 crisis has brought the Ministry of Human Resource Development of government of India, which has tried to safeguard the YAMs by introducing the online digital education ingenuities of MOOC and SWAYAM, for continued the learning from home during this Pandemic even though, the number of users has been risen exponentially through NPTEL and SWAYAM in India [6].

2.2: Worldwide Impact of Pandemic COVID-19.

Situation in the entire world in view of COVID-19 Pandemic- As per the data generated on 24th April 2020 from the website of worldometer, the countries showing the COVID-19 reported cases more than 10,000 has been shown in the following table. Thus it is clear that all the major leading countries of the continents are devastated due to COVID-19. It also means that almost all the leading institution higher education of the world need to formulate certain plans to revitalize education system [7].

Table-1 Showing Worldwide Scenario of COVID-19;

Name of the Country	Total Cases Affected by COVID-19	Total Deaths
Total	2,734,102	191,189
<i>USA</i>	886,709	50,243
<i>Spain</i>	213,024	22,157
<i>Italy</i>	189,973	25,549
<i>France</i>	158,183	21,856
<i>Germany</i>	153,129	5,575
<i>UK</i>	138,078	18,738
<i>Turkey</i>	101,790	2,491

Name of the Country	Total Cases Affected by COVID-19	Total Deaths
<i>Iran</i>	87,026	5,481
<i>China</i>	82,804	4,632
<i>Russia</i>	68,622	615
<i>Brazil</i>	50,036	3,331
<i>Belgium</i>	42,797	6,490
<i>Canada</i>	42,110	2,147
<i>Netherlands</i>	35,729	4,177
<i>Switzerland</i>	28,496	1,551
<i>India</i>	23,502	722
<i>Portugal</i>	22,353	820
<i>Peru</i>	20,914	572
<i>Ireland</i>	17,607	794
<i>Sweden</i>	16,755	2,021
<i>Austria</i>	15,002	522
<i>Israel</i>	14,882	193
<i>Saudi Arabia</i>	13,930	121
<i>Japan</i>	12,368	328
<i>Chile</i>	11,812	168
<i>Mexico</i>	11,633	1,069
<i>Ecuador</i>	11,183	560

Name of the Country	Total Cases Affected by COVID-19	Total Deaths
Singapore	11,178	12
Pakistan	11,155	237
Poland	10,759	463
S. Korea	10,708	240
Romania	10,096	552
Total:	2,734,102	191,189

(Source - <https://www.worldometers.info/coronavirus/> on 24th April 2020)

III. WHO PRESS RELEASE IN VIEW OF PANDEMIC COVID-19

Ever since the outbreak of COVID-19, the World Health Organization (WHO) has been regularly publishing the daily basis on not only with respect number of new cases, number of deaths etc, being reported in various parts of the world but also emphasize on physical distancing on its website so that a general awareness is spread amongst various parts of the planet. World Health Organization (WHO) pointed out that nearly 2.7 million people have been infected and nearly 0.2 million deaths across the globe. WHO is closely monitoring the situation highlighted that most of the European countries are showing stable or declining trends with respect to death rate. However, it is worrisome since the underdeveloped and developing countries in the Africa, Asia, Southern and Central America are showing explosion being reported on daily basis, because of inadequate infrastructure and medical facilities in these countries. It has been strongly castigated all the people for taking the pandemic COVID-19 lightly since it has been visualized that virus is going to stay with us for a long time [8].

From above, the people across the globe need to be more cautious in totality to follow the WHO guidelines and also need to follow the directions received from health ministry of respective nations.

IV. DISCUSSION

In view of COVID-19 Pandemic because of Novel Corona virus (2019-nCoV), entire world is struggling to control this situation by various preventive measures as per the WHO guidelines. As of now, no Specific pharmacological treatments are available for COVID-19 and no specific vaccine identified as a controlling parameter to COVID-19.

The present paper opines that campus life in HEI s of YAM s need to change with 360 degree, from closed gathering to Physical distancing in the campus and classroom. The Physical distance Management System figure-1(PDMS)as preventive measures to protect our YAMs from COVID-19 Pandemic in worldwide HEIs will go a long way to contain the spread of deadly virus COVID-19.

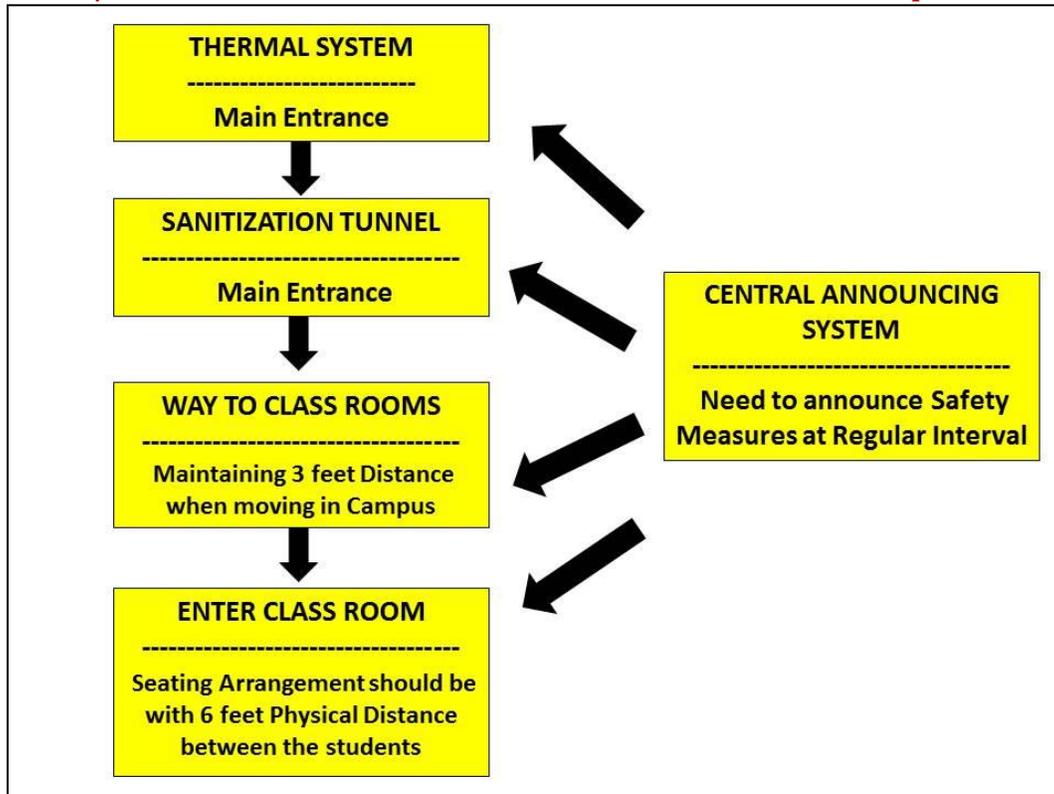


Figure:1: Flowchart showing the Physical Distance Management System (PDMS)

V. CONCLUSIONS

As of now as there is no specific vaccine identified as a controlling parameter to control the Novel Virus COVID-19. Under such circumstances all HEIs in the world need to protect the youth, who are the future of this planet. PDMS Model proposed in this paper along with the preventive measures suggested as per the recommendations of WHO and Ministry of health of respective nation will not only help in a long way to control the further spread of the virus in the HEI's and will also protect our youth.

The physical distance which needs to be maintained as per the guidelines given by the WHO will also needs to be adapted by the students while on or off the campus. The pandemic COVID-19 is also going to change the lifestyle and behavioral pattern in the campus. The students as well as the teachers will have to adapt themselves to the varying ways of dealing in the society till the cure for the COVID-19 is available to each and every one. The HEI's also needs to display the signboards or flex issued by the WHO from time to time in order to control the spread of COVID-19. Even though the students and public in general are aware of maintaining the physical distancing, however it should be the duty of all institutes to place such hoardings of WHO at prominent places so as to avert any additional spread of virus.

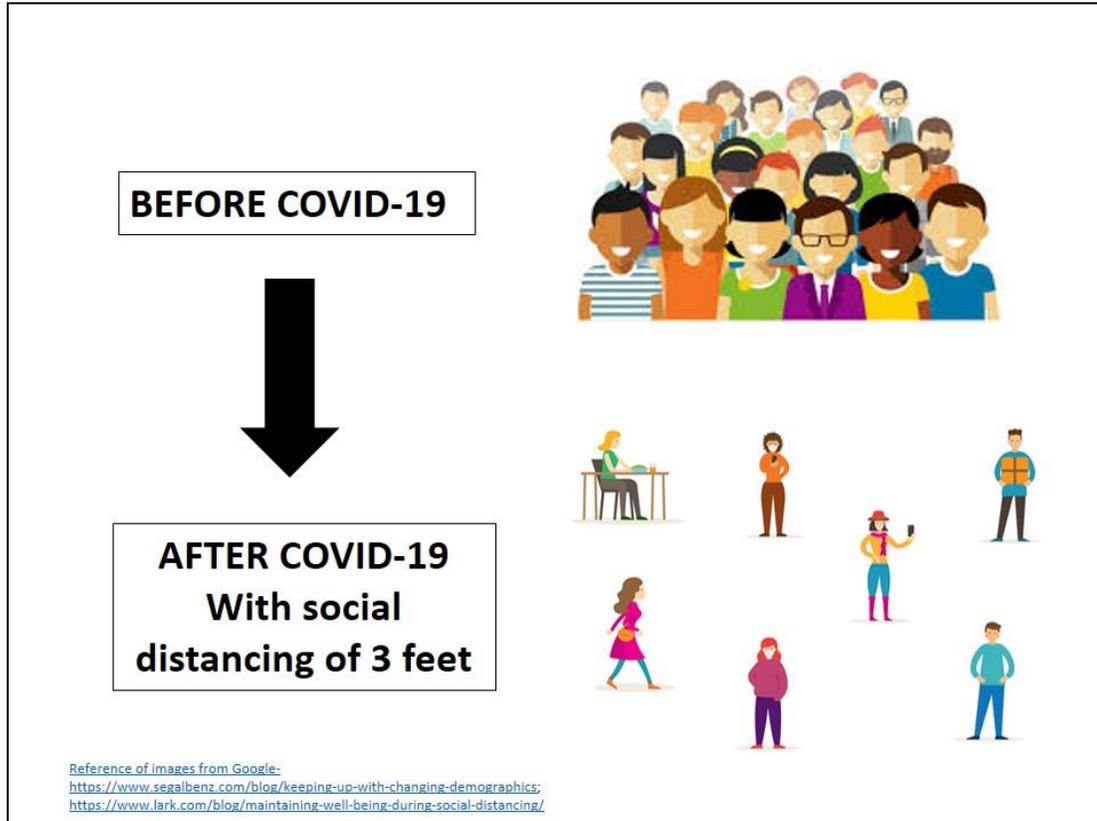


Figure-2 Showing the concept of physical distancing on Campus

(Reference of images from Google-
<https://www.segalbenz.com/blog/keeping-up-with-changing-demographics;>
<https://www.lark.com/blog/maintaining-well-being-during-social-distancing/>)

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