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Mat NO.: 18/ENG06/035

DEPT.: Mechanical Engineering

Date:25th April 2020

ROLES OF AN ENGINEER IN THE CORONAVIRUS PANDEMIC

INTRODUCTION

The 2019 coronavirus disease otherwise known as covid-19 is an infectious disease caused by coronavirus. The Human coronaviruses were first discovered in the 1960s. The earliest ones studied were from human patients with the common cold, which were later named human coronavirus. The epidemic which started in China has now become a pandemic causing many deaths all over the world, it spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. The COVID-19 virus affects different people in different ways. COVID-19 is a respiratory disease and most infected people will develop mild to moderate symptoms and recover without requiring special treatment. People who have underlying medical conditions and those over 60 years old have a higher risk of developing severe disease and death.

CORONAVIRUS IN THE WORLD

The World Health Organization (WHO) on March 11 declared COVID-19 a pandemic, pointing to the over 118,000 cases of the coronavirus illness in over 110 countries and territories around the world and the sustained risk of further global spread.

An epidemic refers to an uptick in the spread of a disease within a specific community. By contrast, the WHO defines a pandemic as global spread of a new disease, though the specific threshold for meeting that criteria is fuzzy. The term is most often applied to new influenza strains, and the CDC says it's used when viruses "are able to infect people easily and spread from person to person in an efficient and sustained way" in multiple regions. The declaration refers to the spread of a disease, rather than the severity of the illness it causes.

CORONAVIRUS IN NIGERIA

On 27 February, Nigeria confirmed its first case in Lagos State, an Italian citizen who works in Nigeria had returned on 25 February from Milan, Italy through the Murtala Mohammed Airport, fell ill on 26 February and was transferred to Lagos State biosecurity facilities for isolation and testing. Since then, corona virus disease has spread. Although, it spread at a slow rate, the numbers have peaked to 1095 with 208 discharged and 32 deaths as at 24th of April. To curb the spread of the Coronavirus disease the government imposed a lock down from 30th of March, therefore all activities shut down. The million-dollar question is **'What should the engineer do?'.**

Roles of an engineer in the coronavirus pandemic

It may sound absurd to say an engineer has a role to play in the coronavirus pandemic, I mean, it relates to health, why should an engineer be involved?, is he/she a medical personnel?. Yes, an engineer has roles to play as it is a sector which has been affected immensely. Dr. Tedros Adhanom Ghebreyesus, WHO director-general, at a media briefing spoke, in his words "This is not just a public health crisis, it is a crisis that will touch every sector,".

Technology has played a great role in health care over the years as huge steps have been taken in technology which has created a prodigious gap between twenty years ago and now, there is a significant improvement in the quality of healthcare. Engineering is important to technology as engineering is technology and the engineer is mandated to solve the problem of humans with technology

During, this period firms have been shut down, although some firms which are crucial to the survival of both humans and the economy, the engineers are not exempted as they are to find new ways to help the health sector work towards putting and end to the pandemic. Technologies have already existed which helps fight the pandemic, some of which includes ventilators, face masks, to mention a few. These technologies have to be improved by the engineers to serve more functionality.

As the saying goes, "Prevention is better than cure", it really is better that cure. If preventive measures can be put in place, it will go a long way curtail the pandemic, in the long run reducing the numbers. Technologies such as automatic doors, voice-controlled systems should be put in place for hospitals and sectors which are exempted from the lockdown imposed. The virus settles on surfaces, and at this point it has not been scientifically proven how long it can last on surface without a host, it is impossible at this time for someone to

disinfect everything he/she touches, so automatic/ voice-controlled systems to curb the spread of the disease.

Also, in every sector there has to be continuity except it is tending to be extinct. Engineer also have to think “What happens after the pandemic?”. This philosophy will instil the will and self-drive to create new things, see the world from different perspectives, think of new ways to solve problem, develop new ideas. Also, “Will there be another pandemic”, very certain there will be another pandemic, “How do we fight it?”. Technologies should be developed so as to curb the next one, because I think we were not ready for this.

CONCLUSION

Engineers have great roles to play in Nigeria, Also the government have roles to play in the engineering sector. I think if schools are well-equipped, we will have less of theory-based engineers and more of practical based engineers, skill-driven and tactical in tackling real life problems, because its not really about knowing what ‘x’and ‘y’ are, but applying them to real life. The Government should also support infant engineering firms with incentives to further improve them.

Health is more important to any living thing; engineers should focus a little more on healthcare development.

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