

NATIONAL INSTITUTE OF TECHNOLOGY, RAIPUR



ASSIGNMENT ON 5 solution to Covid19 provided by biomedical engineers

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2 INTRODUCTION

With the hugely increased demand for ventilators and other equipment over the time of covid 19 , we've seen the important role that medical technology plays in patient care.

Many people working in engineering have responded to the ongoing crisis by adapting their existing skills and equipment to help fight COVID-19.

When a pandemic like COVID-19 takes hold, biomedical engineers work around the clock to ensure the right systems, equipment and devices are in place. Their expertise becomes a vital link in coordinating supply chains of life-saving medical technology.

3 RAPID COVID TEST

Biomedical engineers at Duke University have devised a test to quickly and easily assess how well a person's neutralizing antibodies fight infection from multiple variants of COVID-19 such as Delta and the newly discovered Omicron variant.

This test could potentially tell doctors how protected a patient is from new variants and those currently circulating in a community or, conversely, which monoclonal antibodies to treat a COVID-19 patient. The test is described online December 3 in the journal Science Advances.

4 PRE SYMPTOMATIC DETECTION OF COVID 19 FROM SMARTWATCH DATA

Consumer wearable devices that continuously measure vital signs have been used to monitor the onset of infectious disease. Here, we show that data from consumer smartwatches can be used for the pre-symptomatic detection of coronavirus disease 2019 (COVID-19)

5 IN MAINTAINING THE PROPERLY WORKING OF BIOMEDICAL EQUIPMENTS IN HOSPITAL

From research of bodily systems and development of medical devices to maintenance of facility networks and instruction on treatment procedures, biomedical engineers keep hospitals, clinics, and care facilities running and helping patients. to take care of all the equipment needed in covid 19 treatment is working properly or not.

6 BIOPRINTING

One of the many processes used in manufacturing is 3D printing. This is a useful tool for engineers, as it allows them to make copies of precise items several times over. In response to the COVID-19 outbreak, many small companies or individuals with access to 3D printers are doing their part to produce additional face masks and visors for healthcare workers, and those working in close proximity to other people.

7 RESEARCH BY BIOMEDICAL ENGINEERS

Biomedical engineers have done lots of research during covid 19 . And lots of research are in still continuation

8 REFERENCE

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