

## IITBBS working on anti-viral face shield

Hemanta Pradhan  
@timesgroup.com

**Bhubaneswar:** As a part of its initiative against Covid-19, the IIT Bhubaneswar (IITBBS) is conducting research to come up with a face shield with coating of anti-microbial components on it. The virus will be killed after coming in contact with the unique coating on this face shield.

Normally, frontline health workers, including doctors and nurses, engaged for treatment of Covid-19 patients, use face shields to prevent viral infection. "The existing face shields do not have anti-viral coating. It will be an extra layer of protection for our frontline health workers," said RV Rajakumar, director of IIT Bhubaneswar.

Srikant G, assistant professor of minerals, metallurgical and materials engineering (MMME) school of the national institute, said titanium dioxide (TiO<sub>2</sub>), zinc oxide (ZnO) and reduced graphene oxide (rGO) and other nano particles are used for creating the coating on the face shields. "It is seen that these nano particles have the capacity to kill the germs and viruses," he added. He said the face shield is a first line of protection.



EXTRA PROTECTION

"If a Covid-19 positive person sneezes near a health worker, fine droplets consisting of virus come in contact with the shield and stick on that for several hours. Even the person does not have any idea about the sticking of the virus on the shield. If we apply a coat of nano particles which will kill the virus on the face shields, we can give extra layer of protection to our health workers," he added. Besides Srikant G, others in the research team include school of basic sciences faculty member Niharika Mohapatra and PV Satyam, head of school of MMME.

The school of basic sciences, IIT Bhubaneswar, has prepared an alcohol-based hand sanitiser, which has been prescribed by the World Health Organization (WHO) for preventing the spread of coronavirus. Ashis Biswas and his research group have prepared hand sanitiser.