

**Proposals on Product Development towards Combating COVID 19 Outbreak
An Initiative from IIT Kharagpur**

Category: Personal Protective Care and Equipment

Title: Personal Protective Equipment for Healthcare Workers (Face Shield, Face Mask and Protective Gown)

Expected Outcome:

Face Shield - Low-cost, light-weight, single-use face shield which does not require special equipment and could be made readily by groups of people with little specialized skill.

Face Masks - Entrapping nano to submicron range particles including aerosols during inhalation. There is also an opportunity of further improvement of the face mask in terms of slow release of herbal fragrance and antiviral agents. The face mask may also have inherent bacteriostatic/bactericidal as well as antiviral efficacy.

Protective Gown: This would be very important to have antiviral efficacy on the surface along with easy to wear and easy to seal at the junctions of different parts. This gown of different kind could be used for infected patients with polymer based transparent bags with possible ventilation systems as well.

Expected Timeline: 3 - 6 months

Remarks: Funding requirement - Rs. 16 Lakh

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