



## INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Technologies and Expertise available at IITB w.r.t COVID-19

### Areas of expertise

#### Sanitisation approaches

**a. Prof. Sanjay Mahajani:**

- Incinerator for waste disposal

**b. Prof. Ambarish Kunwar**

- Portable UVC Germicidal Unit

**c. Prof. Soumyo Mukherji**

- Has worked on technology to differentiate virus and bacteria. Rapid confirmative categorization of infections in clinical settings as bacterial or viral is frequently challenging due to the vague presentations of diseases and symptomatic similarities.
- Many earlier studies have shown the bactericidal effect of silver nanoparticles which, in the current study has been enhanced by synergistic action of polycationic chitosan stabilizers.
- An impedimetric electro-active polymer (polyaniline) modified paper substrate has been developed for generic differentiation of bacteria and virus based on their interaction with chitosan stabilized silver nanoparticles.
- These characteristic electrical impedance signatures of bacteria and virus, established here, have promising prospects in inexpensive and scalable bedside diagnostic development.

**d. Prof. Sandeep Kumar**

- Incinerator for waste disposal