

DST supported disinfection system makes N95 Masks, PPE, medical gear reusable and reduces excessive COVID 19 bio-medical waste generation

The system has been validated and tested by the Department of Biosciences & Bioengineering at IIT Bombay

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A N95 Mask/PPE disinfection system developed by Mumbai-based start-up, Indra Water, has been installed at multiple Government hospitals across Maharashtra & Telangana.

The disinfection system called Vajra Kavach is significantly decreasing the cost of combating the pandemic by making PPE, medical, and nonmedical gear reusable and reducing the generation of excessive COVID 19 related bio-medical waste, thereby helping the environment. It is also making personal protective equipment more available, affordable, and accessible.

The product uses a multistage disinfection process with advanced oxidation, corona discharge, and UV-C light spectrum to inactivate the viruses, bacteria, and other microbial strains present on the PPE with more than 99.999% efficiency.

Indra Water, the startup which was initiated with the NIDHI-PRAYAS grant from DST (through SINE- IIT Bombay) for innovations in the water sector, used the Center for Augmenting WAR with COVID-19 Health Crisis (CAWACH) grant of the Department of Science & Technology (DST), Government of India to modify their technology to make it suitable for combating the COVID 19 infection. With support from SINE, IIT Bombay prepared themselves to manufacture and supply 25 disinfection systems per month.

The system has been validated and tested by the Department of Biosciences & Bioengineering at IIT Bombay and has been found to achieve more than 5 LOG (99.999%) inactivation of viruses and bacteria. It is also CSIR - NEERI approved & IP55 certified and is now being installed in hospitals treating COVID 19 patients across India.



Images of Vajra Kavach system being installed at various hospitals

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