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Press Invite/Release

JMI Researchers invent solar powered Disinfection Tunnel for COVID-19, published in Official Journal of Patent Office, GoI

Researchers at the Department of Mechanical Engineering, Jamia Millia Islamia (JMI) have developed a “Solar Powered Self Generating Disinfection System for Preventing Coronavirus in Remote Places”. The invention has been published in the Official Journal of The Patent Office, Government of India and awaiting grant of patent.

Prof. Mohammad Emran Khan, HoD, Mechanical Engineering and Dr. Osama Khan, Assistant Professor (Contractual), Department of Mechanical Engineering, JMI jointly invented this solar powered disinfection system.

The main objective of the invention is to provide a self-generating disinfection system powered by solar energy in order to prevent COVID -19 or similar diseases in large gathering, public and remote places.

The present invention is based on overcoming the obstacles, procured while employing the disinfection models in remote places where electricity outages are quite common. The proposed system is basically intended for remote or public locations with comprehensive solar potential and comprises of huge population.

The system comprises of solar equipment's (PV modules, charge regulator, inverter and battery system) and electrolytic disinfectant generator integrated with one another. A fine disinfectant mist is generated inside the chamber which eventually removes any harmful infection or bacteria on the incoming person.

The invention is highly suitable for all outdoor applications involving mass gathering, requires only a small area at entrance for the whole setup, simple in construction (no complicated wiring system), eco-friendly in nature, works on renewable energy, non-toxic in nature, has high efficiency in eliminating and suppression of bacterias and viruses, limited quantity of water required for whole operation and reduced overall and working costs in comparison to other disinfectant systems. Hence, the proposed system can be helpful in curbing the current situation of Covid-19 by employment of this system at various public and remote places where accessibility of electricity and chemicals for disinfection is burdensome.

The disinfection system is mainly intended for remote or public places such as, banks, malls, hospitals, marriage halls, party halls, airports, universities, schools, temples, colleges and etc, where the transportation of chemicals and electricity availability for disinfection is scarce, thereby self-generating the mixture with available tap water using the solar energy.

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