

Covid 19 Infographics (From 20 March to 03 April 2020)




विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY




DST-SERB invites proposals on COVID-19 & related respiratory viral infections under IRHPA (Intensification of Research in High Priority Area) scheme to ramp up national R&D efforts for new antivirals, vaccines, and affordable diagnostics.



Last Date: March 30, 2020

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प्रौद्योगिकी विकास बोर्ड
TECHNOLOGY DEVELOPMENT BOARD
DEPARTMENT OF SCIENCE & TECHNOLOGY

Technology Development Board (TDB), a statutory body of DST invites applications from Indian companies and enterprises to address protection & home-based respiratory intervention for COVID-19 patients.



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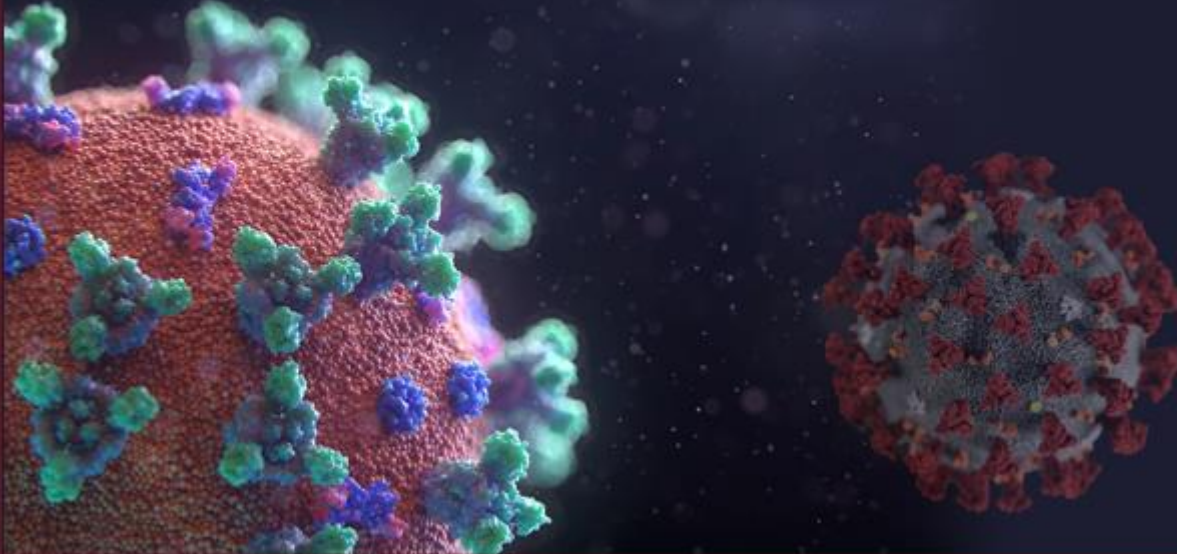
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
DST has set up a COVID 19 Task force for mapping of technologies from R&D labs, academic institutions, startups, and MSMEs to find nearly market-ready solutions in diagnostics, testing, health care delivery solutions & equipment supplies with representatives from DST, DBT, ICMR, MeitY, CSIR, AIM, MSME, Startup India and AICTE.




DST launches nationwide exercise to identify & boost Covid19 solutions with support for R&D, seed fund for market deployable products and help to scale up solutions already in market.



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DST synergising activities by S&T Ministry & its network of scientific bodies across the country to identify and scale up Covid 19 solutions

-  SERB invited R&D proposals under IRHPA scheme specifically designed for Covid-19 & related respiratory viral infection
-  Technology Development Board (TDB) invited proposals of technological solutions to address protection and home-based respiratory interventions for Covid 19 patients
-  Sri Chitra Tirunal Institute of Medical Science and Technology (SCTIMST), Trivandrum has started building 8 different prototypes to address Covid19 health challenges
-  Covid19 Task Force set up by DST for mapping of technologies from R&D labs, academic institutions, startups and MSMEs with representatives from DST, DBT, ICMR, MeitY, CSIR, AIM, MSME, Startup India and AICTE



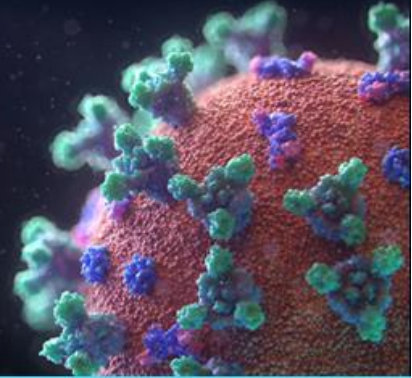
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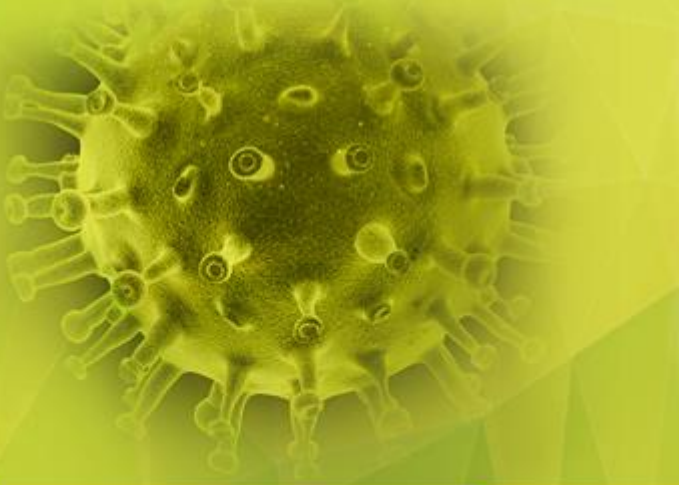
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DST ropes in startups to find urgent solutions to Covid 19 challenges

- DST has seed supported a Pune based Startup under incubation at Scitech Park, University of Pune to augment the deployment of Airon Ioniser Machines at various hospitals in Maharashtra, for reducing the viral load in quarantine areas significantly
- Reaching out to 150+ incubation centres all over the country for mapping novel innovation for Covid 19, encouraging response received from 165 DST incubated startups



As part of DST's efforts to map and boost Covid19 solutions with R&D, seed & scale up support, Pune based Startup under incubation at Scitech Park, University of Pune will deploy Airon Ioniser Machines at various hospitals in Maharashtra, for reducing the viral load in quarantine areas



Technology by Pune based Startup incubatee of Scitech Park will disinfect Maharashtra hospitals in Covid 19 fight

- Technology developed under the NIDHI PRAYAS program initiated by DST
- DST has released Rs 1 crore to manufacture and scale up the product, and 1000 of them will soon be ready for installation in various hospitals in Maharashtra
- The negative ion generator titled Scitech Airon helps to control the virus, bacteria, and fungal infections in a closed environment
- It can clean up the air and disinfect areas exposed to the infection through Covid 19 positive cases and suspects
- It could ensure well being of the staff, doctors, and nurses working in the quarantine facilities by enhancing their disease resistance power and ability to fight the virus
- This is part of DST's efforts to map and boost Covid19 solutions with R&D, seed & scale up support



First set of approved research projects against special DST-SERB R&D calls to combat coronavirus (CoVID-19) and related respiratory infections

Identification of global metabolite biomarkers in CoVID-19 infected patients for targeted therapy.

Dr. Sanjeeva Srivastava,
Department of Biosciences and
Bioengineering,
IIT Bombay

Development of functionalized inanimate surfaces with repurposable multi-targeted viricidal agents/drugs for preventive and cost-effective antiviral applications.

Dr. Nagma Parveen, Department of
Chemistry, IIT Kanpur

Development of antiviral surface coatings to prevent the spread of infections caused by influenza virus.

Dr. Jayanta Haldar,
JNCASR, Bangalore

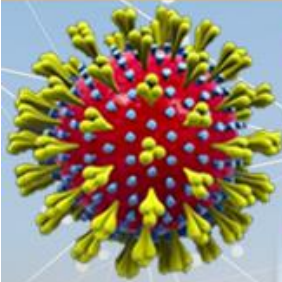
Development of formulations for viral decontamination of inanimate surfaces.

Dr. B. S. Butola, Department of Textile
and Fibre Engineering, IIT Delhi

Antibody-based capture of 2019-nCoV & its inactivation using lipid-based in situ gel.

Dr. Kiran Kondabagil, Department of
Biosciences and Bioengineering,
IIT Bombay

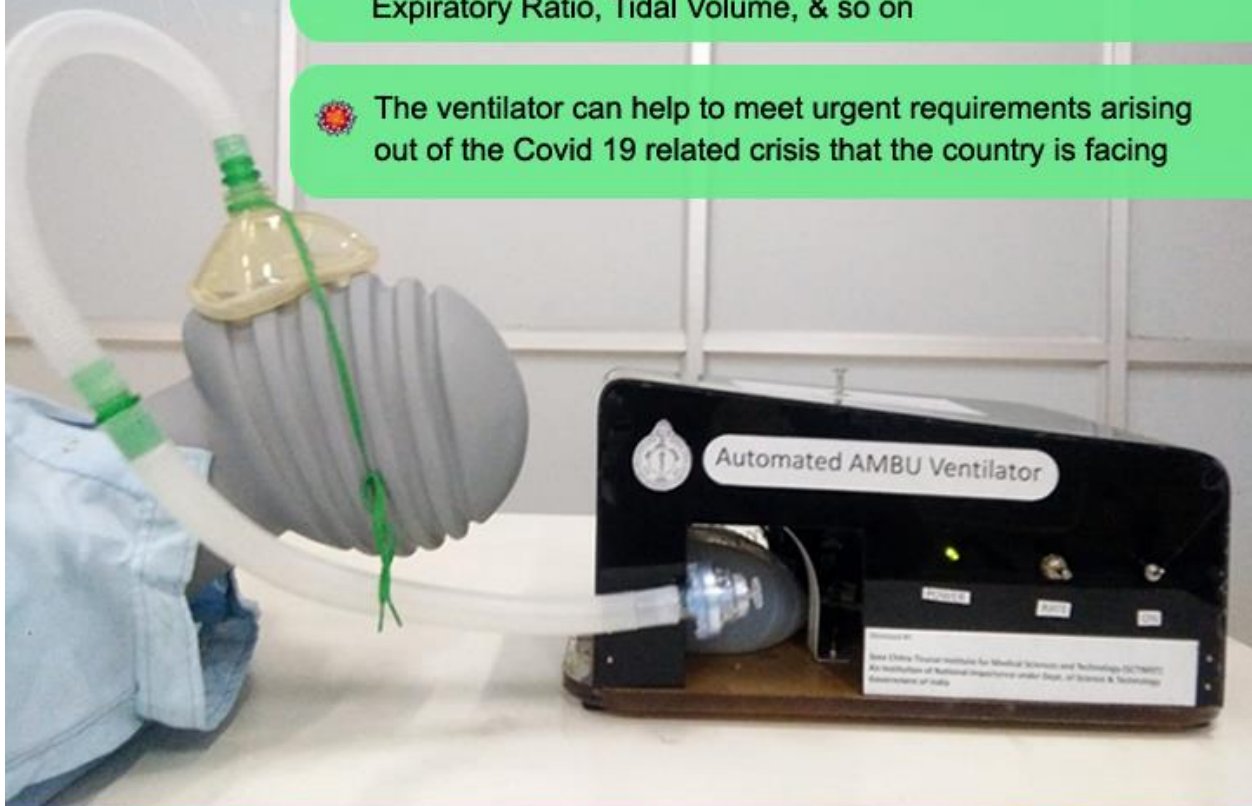
SCTIMST ties up with Wipro 3D to manufacture automated ventilators to meet COVID 19 related crisis



🦠 SCTIMST and Wipro 3D will jointly build up on a prototype of an emergency ventilator system based on Artificial Manual Breathing Unit (AMBU) developed by SCIMST

🦠 This portable & lightweight device enables positive pressure ventilation with a controlled rate of expiration, Inspiratory to Expiratory Ratio, Tidal Volume, & so on

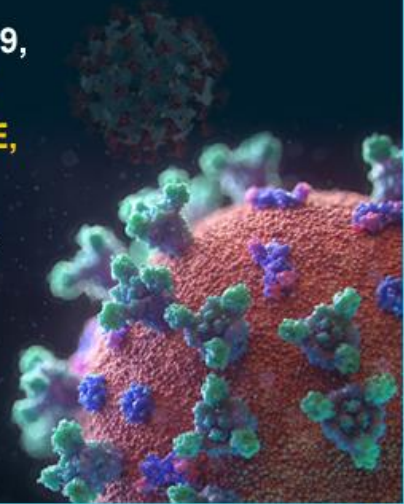
🦠 The ventilator can help to meet urgent requirements arising out of the Covid 19 related crisis that the country is facing



SCTIMST & Wipro 3D are jointly developing automated portable & lightweight ventilators based on **Artificial Manual Breathing Unit (AMBU)** to meet urgent requirements arising out of the **Covid 19** related crisis that the country is facing.



As a rapid response centre to combat COVID 19, DST has set up a **Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH)** at SINE, IIT Bombay to scout, evaluate and support innovations and start-ups with novel, low cost, safe and effective solutions for sanitizers, disinfectants, diagnostics, therapeutics, informatics and effective interventions for the pandemic.



DST sets up rapid response centre at SINE, IIT Bombay to combat COVID-19

- Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) set at a total cost of Rs 56
- The centre will scout, evaluate and support the innovations and start-ups that address COVID-19 challenges
- 50 innovations and startups to be identified for novel, low cost, safe and effective ventilators, respiratory aids, protective gears, solutions for sanitizers, disinfectants, diagnostics, therapeutics, informatics and effective interventions to control COVID-19
- Timely support will be extended to potential startups by way of the requisite financial assistance and fund deployment targeting innovations that are deployable in the market within next 6 months

