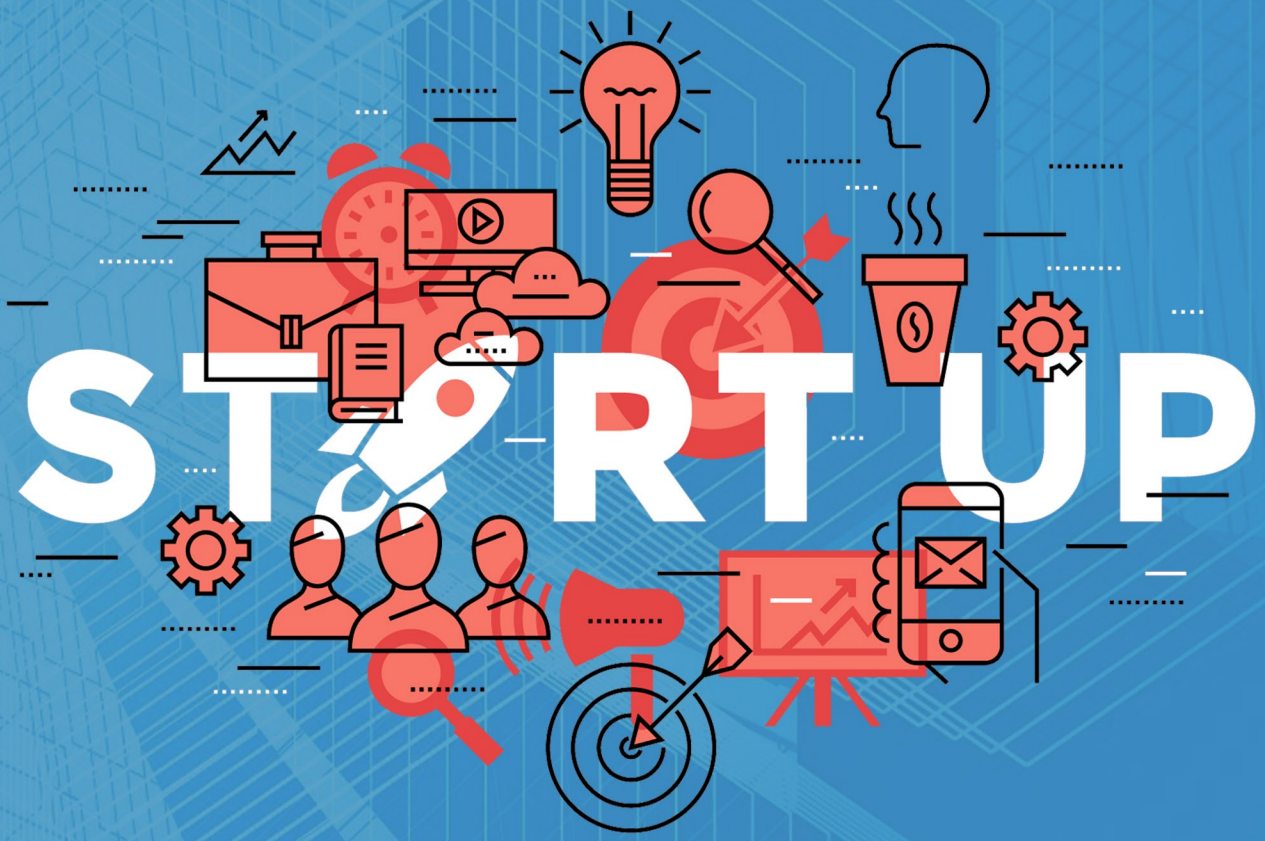
SCIENCE & TECHNOLOGY EFFORTS IN INDIA ON COVID-19

Exclusive Edition on Startup Ecosystem

15th January 2021

VOL. III ISSUE 12



Compiled by
VIGYAN PRASAR
An Autonomous Organisation
of Department of Science &
Technology, Government of India

सबका साथ, सबका विकास, सबका विश्वास
Sabka Saath, Sabka Vikas, Sabka Vishwas

सत्यमेव जयते

डॉ हर्ष वर्धन
Dr Harsh Vardhan

स्वास्थ्य एवं परिवार कल्याण, विज्ञान और प्रौद्योगिकी व पृथ्वी विज्ञान मंत्री, भारत सरकार
Union Minister for Health & Family Welfare, Science & Technology and Earth Sciences Government of India

FOREWORD

The 2019 Novel Coronavirus (SARS-CoV-2) has spread rapidly throughout the world and has assumed the proportion of a Pandemic. Given the lack of an efficacious vaccine as well as non-availability of suitable chemotherapeutic interventions, mankind is experiencing an unprecedented existential crisis.

2. The Ministry of Science and Technology and the Ministry of Health & Family Welfare, with their various departments, are contributing in various ways towards the national R&D efforts for developing solutions to combat COVID-19. The Department of Science & Technology under the Ministry has launched a nationwide exercise to map and boost development of COVID-19 solutions with R&D, seed capital and scale-up support. All academic and research institutions are being reoriented to focus on the development of diagnostics, vaccines, antivirals, disease models and other R&D to enable a cure for this dreadful disease. Around 15 labs of Council of Scientific & Industrial Research (CSIR), under the Department of Scientific & Industrial Research, across the country are working in close partnership with major private sector Industries, PSUs, MSMEs and other Government departments to develop solutions for COVID-19. The Department of Biotechnology (DBT) under the Ministry has also formed a consortium to support the development of Medical equipment, Diagnostics, Therapeutics, Drugs and Vaccines to meet the Healthcare Challenges. Indian Council of Medical Research (ICMR), under the Ministry of Health & Family Welfare has already isolated the virus strain successfully, which is a first step towards vaccine research. Similarly, various other organizations under Ministry of Human Resource & Development, Ministry of Defence, Ministry of Chemicals & Fertilizers, etc. are also contributing substantively to our R&D efforts. The private sector has also come forward in a big way to supplement these efforts.

3. With a view to spreading awareness about the S&T efforts of the Government of India as well as private sector in finding solutions for COVID-19, Vigyan Prasar - an autonomous institution under Ministry of Science & Technology and engaged in large-scale science communication and popularization activities - has compiled all initiatives being undertaken in this field.

4. This document "Science & Technology Efforts on COVID-19 in India" shall serve as a ready-reckoner for policy makers, scientists, researchers, scholars and other stakeholders who might be interested in understanding and keeping themselves abreast with the latest S&T efforts being made to develop solutions to combat COVID19.

(Dr. Harsh Vardhan)

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PREFACE

Hon'ble Prime Minister of India announced the Startup India initiative on 15th August 2015. The flagship initiative was aimed to build a robust ecosystem for nurturing innovation and startups in the country that would drive sustainable economic growth and generate enormous scale employment opportunities. The global macroeconomic outlook for the last year has been adversely affected by COVID-19 pandemic, which has impacted most countries in the world across continents. The pandemic has cast its shadow across various economic activities with dislocation in global production, supply chains and trade. As the world continues to grapple with the impacts of COVID-19, nearly every industry has been impacted in one form or another due to both macro and microeconomic effects. While diverse in its constituents, the startup ecosystem, despite experiencing a momentary paradigm shift, enacted at jet speed and tirelessly worked in harmony with various stakeholders – and for better or worse, this has produced many new scenarios.

Developing a resilient business is about identifying what the business can't afford to lose and planning for preventing loss if a disaster occurs. Building up on this strategy, startups galvanised the pandemic crises as opportunities and built upon the established infrastructure during the dire need. Continuing its efforts, since the early days of the pandemic outbreak, Vigyan Prasar has been publishing the measures initiated towards combating the pandemic, in the shape of a newsletter by focusing on science and safety. The first edition of 2021 encompasses the initiatives and efforts put together by various startups, built up within the ecosystem. These research-driven and technology-based interventions have been initiated on war footing to fight out the pandemic outburst. Various modules have been generated that may be applied to develop realistic models of rational and communication strategy for navigating between the twin dangers of pandemic and infodemic of misinformation.

The coronavirus has also revealed something profound about the way societies should treat knowledge. Something good might come from the misery of the pandemic year 2020. It should include a new social contract fit for the 21st century. We sincerely anticipate that Vigyan Prasar's initiative shall be a handy guide to scientists, researchers, scholars, industries, and entrepreneurship, especially those interested in exploring various aspects of COVID-19 and contributing to making the nation Aatmanirbhar.

Vigyan Prasar
New Delhi

15 Jan 2021

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The e-newsletter is being published on a regular basis by collating all the inputs received till the preceding day of the release.

The older issues of e-newsletter are available in the Archival Section at https://vigyanprasar.gov.in/covid19-newsletters/

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***Note:** The efforts covered in the edition contain the initiatives taken by the various start-ups in last one year, post outbreak of COVID-19 Pandemic. These initiatives by start-ups are outcome of the continuous perseverance of building a robust entrepreneurship ecosystem. The initiatives received supports from various Ministries, Departments and Funding Agencies of Union and State Governments as well as through various flagship schemes, like Digital India, Swastha Bharat, Swachh Bharat, and so on. Several initiatives are the outcome of developing incubatees through technical and business incubators.*

FUNDING GRANTS

National Startup Awards 2021 seek to recognize and reward outstanding start-ups

Startup India is a flagship initiative that aims to build a strong eco-system for nurturing innovation and Start-ups in the country that will drive sustainable economic growth and generate large-scale employment opportunities.

The National Startup Awards 2021 seek to recognize and reward outstanding start-ups and ecosystem enablers that are contributing to economic dynamism by spurring innovation and injecting competition. It is for the start-ups that are building innovative products/solutions, scalable enterprises, with high potential of employment generation or wealth creation, and demonstrating measurable social impact. The measure of success will not only be the financial gains for the investors but also the contribution to the social good.

The Indian start-up ecosystem has showcased unprecedented resilience and zest for innovation, which has been playing an important role in propelling the nation's socio-economic growth trajectory. NSA 2021 also aims to cover flagship schemes launched by the Government of India through innovations in corresponding areas, thereby solving community problems at large. Consideration is also being given to champion sectors identified by the Government of India with a focus on improving India's manufacturing capabilities towards the mission of an "Atmanirbhar Bharat."

The recognized entities will benefit from such recognition, not only in terms of being able to attract more business, financing, partnerships, and talent, but also will be enabled to serve as a role model for other entities, budding entrepreneurs, and to inspire them to be purposeful and responsible about their socio-economic impact.

Under 15 sectors awards will be conferred: Agriculture, Animal Husbandry, Drinking water, Education & Skill Development, Energy, Enterprise Systems, Environment, FinTech, Food Processing, Health & Wellness, Industry 4.0, Security, Space, and Transport & Travel.



Last date to apply: 31st January 2021

Website link:
https://www.startupindia.gov.in/awards
https://pib.gov.in/PressReleseDetailm.aspx?PRID=1682658

Government organising 'Prarambh' – Startup India International Summit

Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India will be organising 'Prarambh' - Startup India International Summit – during 15-16 January 2021, in a virtual format.

Prarambh is expected to bring together top policy makers, industry, academia, investors, start-ups and all stakeholders from across the globe. In addition to deliberating on good practices from best of the ecosystems across the world, the sessions of the Summit are designed to showcase the spread and depth of entrepreneurship based on innovation in India. The idea is to attain attention of global capital for start-ups in India, mobilize domestic capital, provide opportunities for accessing international markets to our start-ups and evolve enabling policy provisions.

The first day of the Summit has been devoted to host dignitaries and stakeholders from BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) member States. The day will witness participation of renowned stakeholders from start-up communities of BIMSTEC member states engaging in multilateral discussions and showcasing best of their innovations.

Startup India was launched on 16th January 2016 by Hon'ble Prime Minister of India Shri Narendra Modi, with an objective to build a strong ecosystem for nurturing innovation and start-ups in the country that will drive sustainable economic growth and generate large scale employment opportunities. The Indian start-up ecosystem today is counted among the world's largest start-up ecosystems and is growing at an unprecedented rate, contributing to the innovation-driven growth for the Indian economy. The Summit also celebrates 5 years of launch of Startup India initiative which has played a pivotal role in spurring the spirit of entrepreneurship in every corner of the country.

The two-day long virtual summit will bring together over 200 marquee speakers from around the world and India; facilitate discussions on technologies, innovation, robust policies, and initiatives; enable government and international organisations to share their views and set on fire the minds of young Indian entrepreneurs, driving them to solve the problems and challenges that matter, not just for India but also for the entire world.



The objective is to encourage and inspire the youth for innovation and entrepreneurship, exchange knowledge on best practices on nurturing start-up ecosystems, develop capacities of entrepreneurial ecosystem, mobilize global and domestic capital for investments into start-ups, provide opportunities to start-ups for entering domestic (private and public) and international markets, showcasing high-quality, high technology and frugal innovations from India and enable ease of doing business for start-ups and investors.

Website link
https://www.theprarambh.in/index.html

Action COVID-19 Team (ACT)

A grant of Rs. 100 Crores was created by India's start-up community to give wings to ideas that could combat COVID-19 with immediate impact. Action COVID-19 Team (ACT) is seeking capital-efficient, scalable solutions from NGOs and innovative start-ups which need an initial seed grant to fight the spread of the pandemic.



Website Link:
https://actgrants.in/

United States–India Science and Technology Endowment Fund (COVID-19 Ignition Grants)

The United States–India Science & Technology Endowment Fund (USISTEF) seeks to support and foster joint applied R&D to generate public good through the commercialization of technology developed through sustained partnerships between U.S. and Indian researchers and entrepreneurs. The current global crisis underscores the importance and relevance of USISTEF activities.

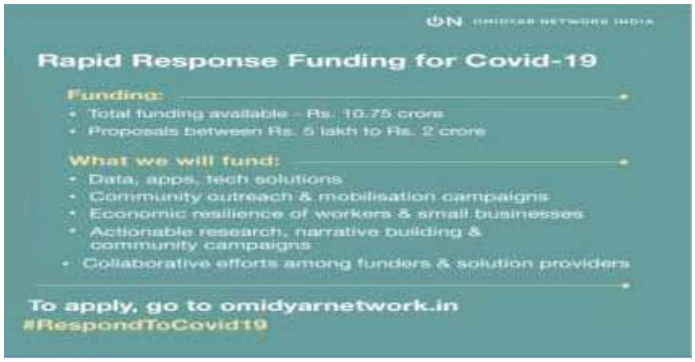
USISTEF would select and support promising joint U.S. – India S&T-based entrepreneurial initiatives that address the "development and implementation of new technologies, tools, and systems to address COVID-19-related challenges including monitoring, diagnosis, health and safety, public outreach, information and communication." These initiatives can originate from government, academic, nongovernmental or commercial entities and any combination thereof, provided they focus on applied R&D and have commercial potential. USISTEF would also consider proposals related to technologies/products that can be re-purposed to address COVID-19 in the current scenario. USISTEF encourages projects that demonstrate a high degree of innovation leveraging advances in science and technology.



Website Link:
https://www.iusstf.org/assets/sitesfile/image/counselling/announcement_1677132591.pdf

Omidyar Network India Rapid Response Funding for COVID-19

Omidyar Network India has announced a call for proposals for rapid response funding to tackle the challenges posed by the COVID-19 situation and the consequent socio-economic impact. They are committing Rs. 7.5 Crore ($1 million) to this initiative. They are also pursuing partnerships with other funders to crowd in funding, by matching contributions to some/all of the proposals approved under this initiative. Wadhwani Foundation is a partner in this initiative.



Website Link:
https://www.omidyarnetwork.in/blog/omidyar-network-india-announces-rapid-response-funding-for-COVID-19-commits-rs-7-5-crore-us-1-million-towards-solutions-focussed-on-next-half-billion

Bexley Advisors COVID-19 Action Fund (BACoAF)

The Bexley Advisors COVID-19 Action Fund is designed as a bridge to capital for innovators on the frontlines of the pandemic, who are creating solutions for the biggest challenge that have confronted the nation. The Fund collects entries on a rolling basis and shares them with participating VCs and investors every week.

BEXLEY
Covid-19 Action Fund

Website Link:
https://www.bexleyadvisors.com/bacoaf

SIDBI Assistance to Facilitate Emergency (SAFE) Grant

Responsive to the need of the hour to fight Coronavirus from all fronts, Small Industries Development Bank of India (SIDBI), the principal financial institution engaged in the promotion, financing and development of Micro and Small Enterprises (MSEs), has launched SIDBI Assistance to Facilitate Emergency (SAFE) response against Coronavirus scheme. It is a financial assistance programme for MSEs, which are engaged in the manufacturing of products or offer services related to fighting the novel coronavirus pandemic.

MSEs engaged in manufacturing of hand sanitizers, masks, gloves, head gear, body suits, shoecovers, ventilators, goggles, testing labs etc. can avail loans up to Rs. 50 Lac at a fixed interest rate of 5 per cent for maximum loan repayment tenure of 5 years. These are collateral



free loans and may be sanctioned within 48 hours of applying and submission of documents.

Website Link:
https://sidbi.in/files/pressrelease/Press-Release_SIDBI-launches-SAFE-(SIDBI-Assistance-to-Facilitate-Emergency-response-against-Corona-Virus)-scheme.pdf

SIDBI SAFE PLUS Grant

SIDBI Safe Plus is for providing emergency working capital to MSMEs which are producing goods and services directly related to fighting coronavirus, against specific orders from the government/ government agencies. All existing MSMEs – whether SIDBI's existing customers or new SIDBI

SAFE-PLUS

SIDBI Assistance to Facilitate Emergency response against corona virus - Plus

Loan at 5% within 48 hours

customers can apply for this. Items covered within this scheme are Permitted drugs, Ventilators, N95 or higher masks, Eye protection (visor/goggles), Protective Gowns/Aprons, Shoe covers, IV Fluid – DNS, IV Fluid – Dextrose, IV Sets, IV Cannula, ICU Beds, Cardiac monitors, Syringe pumps, Portable x ray machines, Endotracheal tube, Suction tube, Oxygen cylinders, Rubber Sheets, testing labs, etc.

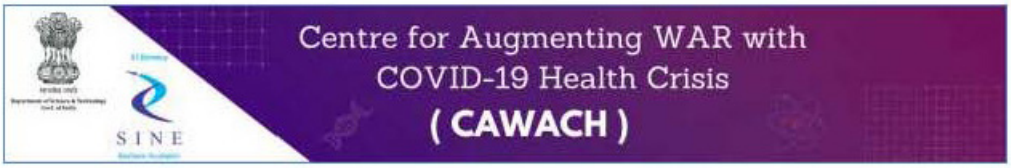
Website Link:
https://sidbi.in/files/banners/SAFE%20PLus%20-%20One%20Pager.pdf

DST CAWACH Grant

The Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) is an initiative by National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology (DST), Government of India. Given the impact of COVID-19 globally and in India, the need of the hour is to support R&D efforts in this direction and end any further damage to the economy. DST is supporting innovations offering comprehensive solutions through the start-up-ecosystem.

DST has nominated Society for Innovation and Entrepreneurship (SINE), IIT Bombay to implement CAWACH to source and support start-ups having solutions to fight COVID-19 pandemic by way of funding.

CAWACH supports innovations in the areas of diagnostics, devices, informatics including bio-informatics and information management systems, any intervention for the control of COVID-19 and/or start-up ideas to address/mitigate various challenges faced by the country/society due to severe impact of COVID-19.



Website Link:
https://isba.in/cawach/

SIDBI CSAS Grant



COVID-19 pandemic has impacted the entire economy and the start-up ecosystem is no exception. SIDBI recognizes the operational and financial challenges being faced by the start-ups and endeavours to provide financial assistance and stability via its scheme viz. COVID-19 Startup Assistance Scheme (CSAS). This scheme will provide assistance to innovative start-ups that have demonstrated ability to adapt to economic impact from COVID-19 and ensured its employees' safety and financial stability.

CSAS aims to provide assistance to start-ups that will directly benefit from the scheme. The objective of the Scheme is to provide quick working capital in the next 45 to 90 days to the start-ups. Therefore, for a faster processing a Recommendation Committee comprising of 5 members (3 from SIDBI and its nominees and 2 from Venture Capital Industry) will be created.

The Scheme will be launched throughout the country, for Government-defined start-ups, based on the eligibility criteria detailed in the Scheme.

Website Link:
https://sidbi.in/files/announcements/SIDBI_CSAS-Scheme_Details.pdf

Facilitation of Innovation and Regulation for Start-ups and innovators (FIRST HUB) Grant Scheme

To promote government initiatives on Start-up India and Make in India, BIRAC, a Public Sector Undertaking of Department of Biotechnology, Government of India has set up a facilitation unit which will act as FIRST HUB to address the queries of Start-ups, Entrepreneurs, Researchers, Academicians, Incubation Centres, SMEs etc. BIRAC, through its various programmes, is already facilitating research and innovation, and to complete the 360 degree start-up facilitation, setting up of FIRST HUB is envisaged.

First Hub will be open on every first Friday of the month at BIRAC office from 3:00 pm to 5:00 pm. Officers from DBT, BIRAC, ICMR, CDSCO, BIS, NIB and other relevant government organisation will be available for taking queries related to regulatory pathways and regulation, funding opportunities, mentorship, investment opportunities, market access, industry-academia partnerships, and intellectual property.

Website Link:
https://birac.nic.in/desc_new.php?id=427

Innovation Challenge for Video Conferencing Solution by Ministry of Electronics & Information Technology

Government of India is taking all necessary steps to ensure that we are prepared well to face the challenge and threat posed by the pandemic of Coronavirus. The outbreak has led to the unprecedented enforcement of lockdown throughout the country. The concept of Work From Home (WFH), which was till now mostly synonymous with IT industry, has become a household term. With Organisations having asked employees to WFH, video conferencing has become an integral part of the daily life.

Ministry of Electronics and Information Technology (MeitY) announced an Innovation Challenge for Development of a Video Conferencing Solution under the Digital India Programme. The challenge was conducted in three stages: Stage-1 (Ideation); Stage-2 (Prototype) and Stage 3 (Solution Building).



Website Link:
https://startups.meitystartuphub.in/public/application/inc/5e92ec1269e3401cd7bc6db7

COVID-19 Innovations Deployment Accelerator by C-CAMP



C-CAMP has launched C-CAMP COVID-19 Innovations Deployment Accelerator or C-CIDA on 26th March, 2020 to help accelerate COVID-19 innovations stuck in last-mile issues. The initiative by C-CAMP has now been joined by multiple partners: UNHIE, Social Alpha, XYNTEO India2022, MedTechConnect, India Health Fund, AIC CCMB, CCMB, PATH, Action COVID-19 Team, and ACT. It is India's biggest non-governmental funding mobilization effort in wake of the pandemic. It is led by Indian start-ups and industry and 91Springboard. The assessment criteria will include readiness for deployment, scientific validity, feasibility, and impact.

Website Link:
https://www.ccamp.res.in/COVID-19-innovations-deployment-accelerator

My Gov: COVID-19 Solution Challenge

Government of India is taking all necessary steps to ensure that we are prepared well to face the challenge and threat posed by the pandemic of COVID 19. The most important factor in preventing the spread of the Virus locally is to empower the citizens with the right information and taking precautions as per the advisories being issued by Ministry of Health & Family Welfare.

In order to involve the community in the fight against the Virus, My Gov wants solutions to help fight #Coronavirus. Submitted solutions will be evaluated for adoption and those selected will be suitably rewarded.

Website Link:
https://innovate.mygov.in/COVID19/#tab1

Kerala Startup Mission: Break Corona





Kerala Startup Mission is seeking ideas and solutions that have been proven or used in some other scenario, i.e., product/projects with a PoC and have potential usage in the fight against Coronavirus only to be submitted. The categories are Ideas to support COVID-19 Patients, Ideas to support Quarantine COVID-19 patients, Ideas to arrest Community Outbreak (If it happens), Ideas for effective Logistics & Distribution (Food/Medicine/ Grocery), Ideas to support vulnerable people (aged/ infants), Ideas to support system during Shutdown, Hardware (Temporary medical items or substitutes or any hardware product that can be useful during the time of crisis), Ideas that support during economic slowdown if happens, Do It Yourself (DIY) Projects (Creating masks, sanitizers, gloves, etc.), Any other ideas/solutions which support prevention of COVID-19, and Ideas to create Employment opportunities during lockdown.

Website Link:
https://breakcorona.in/

T-HUB: COVID-19 Innovation Challenge

Qcity, and Telangana IT&C (Emerging Tech) are partnering with T-Hub to access the student ecosystem for the COVID-19 Innovation Challenge, which is a ideation programme aiming to empower student innovators to get mentorship from renowned subject matter experts, transforming ideas into business propositions under the aegis of T-Hub and CCMB (The Centre for Cellular & Molecular Biology).



Website Link:
https://t-hub.co/COVID-19-innovation-challenge/

Student Open Innovation Challenge by Government of Gujarat

Gujarat Government has initiated series of initiatives to support Innovators and Start-ups with an aim to nurture end–to-end ecosystem in the State. Its Education Department is making persistent efforts towards achieving the goal and developed Student Start-up and Innovation Policy (SSIP) covering entire academia in the state. Through this policy, various flagship programmes have been launched involving best innovation and start-up pedagogies from across the world. The core belief behind these programmes is around the fact that, given a platform, young minds across universities are capable of applying their creative minds to become problem solver and innovators. Gujarat Government's previous programmes like Smart Gujarat for New India Hackathon, Summer Innovation Challenge and others have showcased innovative ideas being conceived and developed by students, alumni, innovators and start-ups. To take such missions ahead, SSIP is going to launch "Student Open Innovation Challenge" which will create a unique environment across academia in the State. Through this programme they are aiming to involve innovative teams in short- to medium-term and develop innovative solutions.



Website Link:
http://ssipgujarat.in/soic/soic.php

Call for partnership by Atal Innovation Mission for deployment of innovative solutions

Atal Innovation Mission (AIM) encourages all organisations, MSMEs, and industry players, to share with them resources that can help in speedy scaling up and deployment of innovative

solutions. These may include resources such as idle capacity available for manufacturing, testing labs, CSR funds, infrastructure, logistics, mentoring support, access to investor networks, etc. Those who are interested in this can fill their details in the Google form on following links:

Website Link:
https://bit.ly/3isN9Er

CSR Funding – Initiative by Atal Innovation Mission to deal with COVID-19 crises

Corporate Social Responsibility (CSR) is the funding and grants process under which Non-Profit Organisations (NGOs) can get financial and other support from the corporate sector. Under the Companies Act, 2013 it is a mandatory provision to provide a contribution of 2 per cent of the average net profits of companies. In case any firm or any organisation is intending to contribute their CSR funds, they can contact on incubator-aim@gov.in with the subject line "CSR funding". It is the initiative by Atal Innovation Mission (AIM) to deal with COVID-19 crises.

Website Link:
https://aim.gov.in/aim-COVID.php

AIC – Pinnacle Hackathon for inviting solution against COVID-19

AIC-Pinnacle in partnership with Garage48 had organized an online hackathon, inviting Non-Medical Solutions from the Quarantined Minds of Young India against COVID-19. The intent of this hackathon is to develop ideas that are prototypeable in 48-hours and could help solve the crisis and give India an edge in the post-crisis words.



Website Link:
http://hackacause.in/

AMTZ supporting manufacturing of ventilators, PCR-based & serology-based COVID diagnostic kits

Andhra Pradesh Medtech Zone (AMTZ), a parent company of AIC-AMTZ MEDI VALLEY, had provided support for large scale manufacturing of ventilators, PCR-based and serology-based COVID diagnostic kits through its proposals on Public Private Partnership Mode. AMTZ is a medical devices manufacturing park near Vishakapatnam in Andhra Pradesh, set up by the Government of Andhra Pradesh.

Website Link:
https://amtz.in/

Atal Incubation Centre (AIC) – Jyothy Institute of Technology Foundation Challenge

Atal Incubation Centre – Jyothy Institute of Technology Foundation (AIC-JITF) as an incubation centre supported by AIM, NITI Aayog, Govt. of India had announced a COVID-19 challenge with focus areas on PPE equipment, N-95 masks, and Sanitization/Sterilization Diagnostics. Those who are interested for this challenge may apply to the following link:

Website Link:
https://docs.google.com/forms/d/1K5zPoKfGiJZ-5HksoDWAftXyQEVjxuvlI3LU91v7YFo/viewform?edit_requested=true

Government launched grand challenge for developing COVID-19 vaccine intelligence network

As the world moves closer to COVID-19 vaccine availability, governments and healthcare organizations will require developing flexible technology solutions/platforms across the entire gamut of vaccine inventory management, administration, appointment scheduling, notifications, outcome monitoring, and other necessary support for a frictionless distribution of billions of doses of vaccines around the country.

The Electronic Vaccine Intelligence Network (eVIN) system, which provides real-time information on vaccine stocks and storage temperatures across all cold chain points in the country, is being enhanced to address the needs for distribution and tracking of COVID-19 vaccine.

The CoWIN (COVID Vaccine Intelligence Network) system will be a subset of COVID India Portal which provides end-to-end management of COVID-19. Now governments and healthcare organizations also need to think beyond this and devise cost effective mechanisms using emerging technologies including AI and ML to manage COVID-19, to check for better monitoring of vaccinated patients and public in general.

To harness the talent and innovative ideas of new start-ups/new technology specialists, a Grand Challenge is organised in phase-wise manner. On this line of thought, Phase-I of this challenge envisages to strengthen the CoWIN Network. This initiative may be further extended to Phase II to find solutions with respect to different aspects of COVID-19 in the future.



Website link:
https://app.thebizplanner.com/public/application/inc/5fc1e1535a3c7671a744dba0

Government of Jharkhand launched COVID Hackathon 2020

COVIDTHON 2020 was an online hackathon in public interest with special focus on containment of Coronavirus disease (COVID-19) with intent to develop following 3 interlinked components:

- A quarantine management app (QMA) for citizens at risk identified by the administration,
- An effort management app/web portal for administration (state, district, sub district and medical officer levels) and
- A general citizen app for risk assessment, reporting of cases and crowdsourcing of data.



Website link:
https://startupindia.gov.in/content/sih/en/ams-application/challenge.html?applicationId=5e707435e4b007bcd458d56b

A national level 48-hour online ideation hackathon to discover solutions to fight against Corona

InnovatioCuris Foundation of Healthcare & Excellence (ICFHE), under the aegis of the Ministry of Human Resource Development Innovation Cell, All India Council for Technical Education and FORGE Accelerator, hosted a national level 48-hour virtual/online ideation hackathon to discover ideas from thousands of innovators, researchers, scientists, and educators from across India. They joined hands as a true community during these uncertain and challenging times to discover solutions that can help the nation rise as one in the fight against COVID-19.



Website link:
https://www.icfhe.in/covid-19-online-hackathon/

Indian tech community collaborates to build projects to help fight COVID-19 crisis through Coronathon

COVID-19 poses a grave danger to India because of our high population density and abysmally low number of hospital beds per 100 people. It is encouraging to see the Indian government take necessary steps such as lockdown and Indian corporates switch to Work From Home.

On March 22nd 2020, Indian tech community came together and collaborated to build projects that can help other Indians during the COVID-19 pandemic. Over a period of 4 weeks, they launched more than 40 projects and many of them had a positive impact on fighting COVID-19 in India.

Website link:
https://coronathon.in/

COVID-19 Shri Shakti Challenge

MyGov had launched COVID-19 Solution Challenge on its platform which has seen a very encouraging response from start-ups, entrepreneurs and individuals proposing technology solutions in the fields of bioinformatics, datasets, Apps for diagnosis, etc. that can be leveraged for strengthening the fight against COVID-19.

In order to support and promote women, entrepreneurs and women-led start-ups and also to provide solutions by entrepreneurs impacting a large number of women, UN Women has proposed to partner with MyGov COVID-19 Solution Challenge. Accordingly, MyGov has launched COVID-19 Shri Shakti Challenge as an additional reward and support for women entrepreneurs and solutions by entrepreneurs that can impact a large number of women.

Total prize money of Rs. 22,50,000 has been committed by UN Women towards COVID-19 Shri Shakti Challenge, under their program WeEmpowerAsia, supported by the European Union.

Only women entrepreneurs and entrepreneurs with solutions impacting a large number of women were eligible for the prizes sponsored by the UN Women. In case of a tie on scores,

women entrepreneurs of start-ups led by women will get preference; the participants should be Citizens of India and only organisations or entities registered in India would be eligible for COVID-19 Shri Shakti Challenge.



Website link:
https://innovate.mygov.in/shrishakti/

COVID-19 Solution Challenge

Government of India is taking all necessary steps to ensure that we are prepared well to face the challenge and threat posed by the pandemic of COVID-19 – the Coronavirus. The most important factor in preventing the spread of the Virus is to empower the citizens with the right information and taking precautions as per the advisories being issued by Ministry of Health & Family Welfare. Further, we are also getting inputs with regard to individuals and companies who have developed technologies and innovative solutions, Bioinformatics, datasets, Apps for diagnosis etc. that can be leveraged for strengthening the fight against Corona.

In order to involve the community in the fight against the Virus, Government encouraged individuals and companies to find solutions to help fight #Coronavirus.



Website link:
https://innovate.mygov.in/covid19/#tab1

Submit solutions for COVID-19 challenges

Department for Promotion of Industry and Internal Trade (DPIIT) with Startup India is scouting for innovative technologies and solutions for precautionary as well as treatment-related interventions. They had built a one-stop repository of innovative solutions for ready access by the government and the private sector for further development and deployment.

The Challenge was open to all the start-ups, companies, innovators etc. whose innovation can plug the gap between the demand and supply of essential medical items to fight the COVID-19 outbreak as well as an innovative tech for applications such as motion tracking, geofencing, fake news detection, etc.



Website link:
https://startupindia.gov.in/content/sih/en/ams-application/challenge.html?applicationId=5e79126ee4b055bfaea9ef66

Scope of the Hack the Crisis – INDIA Online Hackathon Innovation Challenge



Ministry of Electronics and Information Technology (MeitY) in association with FICCI FLO Pune, Robotex International announced in April 2020 'Hack the Crisis – India Online hackathon' with special focus on containment of coronavirus (COVID-19) with the intent to develop solutions to deal with its aftermath. The intent of this hackathon was to develop ideas that were prototypeable in 48-hours which could help solve the crisis and give India an edge in the post-crisis world.

Website link:
https://www.meity.gov.in/writereaddata/files/Hack_the_crisis_India_%26_MeitY.pdf

Hack the Crisis – INDIA Online Hackathon – awarded to various start-ups

Ministry of Electronics and Information Technology (MeitY) in association with FICCI FLO Pune, Robotex International announced in April 2020 'Hack the Crisis – India Online hackathon' with special focus on containment of coronavirus (COVID-19) with the intent to develop solutions to deal with its aftermath. Here are the details how Indians united to tackle the COVID-19 crisis and challenges of a post-pandemic world. The following technologies have been recognised to be awarded:

- Autonomous UV Disinfection Robot: ANSCER Robotics;
- Portable and Affordable Ventilator with Assist Control Mode for Novel Coronavirus Victims (PAVAN);
- ASHA, an App, connecting people with psychologists digitally and categorising mental health concerns due to the pandemic;
- AI-powered digital hospital & coronavirus laboratory: COVID Care;
- Look Out App to help the government sustainably reallocate resources;
- Remotely operable and scalable mechanical ventilator: Big Bang Boom Solutions;
- Humans AI, a Data Labelling App, as a means of steady income;
- Virus Tracking and Surveillance System through an App, FALCON.

Website link:
https://www.meity.gov.in/writereaddata/files/MEITY%20DOC_5.5.20_v4.pdf

Ministry of MSME supported start-ups in manufacturing and supply of items related to COVID-19

In view of the COVID-19 and initial nationwide compulsory lockdowns, many businesses and start-ups came to a halt. However, to meet the life-sustaining needs and other items catering to the medical and pharmaceutical needs of the nation, Ministry of Micro, Small and Medium Enterprises, Government of India, extended supports and permissions to the start-ups working in the field of manufacturing or supply of items related to use in COVID-19. The list of items can be seen at the link: http://jan-sampark.nic.in/campaigns/2020/26-Mar/MSME/index.html.

Website Link:
https://www.startupsvscovid.com/other-support/recxUE3TxdbKYdW2M

NASSCOM submitted a compilation of technological solutions to combat COVID-19 to the Government

The National Association of Software and Service Companies (NASSCOM) is the premier trade body and chamber of commerce of the Tech industry in India and comprises over 2800 member companies including both Indian and multinational organisations that have a presence in India. Its membership spans across the entire spectrum of the industry from start-ups to multinationals and from products to services, Global Service Centres to Engineering firms. During the times of COVID-19, the organization tried putting together a detailed submission on all solutions that the industry is already working on to combat COVID-19. The submissions were collated and requested from all private and public companies working on a tech solution for fighting the pandemic.

Contact info: sucheta@nasscom.in

Website Link:
https://www.startupsvscovid.com/other-support/recGtB6wValRAgGHK

BIRAC collaborated with Kalam Institute of Health Technology for facilitating testing and standardization of medical devices

Biotechnology Industry Research Assistance Council (BIRAC) has collaborated with Kalam Institute of Health Technology (KIHT) to facilitate Start-ups, Entrepreneurs, Researchers, Academicians, Incubation Centres, SMEs etc. in testing and standardization of medical devices. KIHT has empanelled a set of laboratories which helps in testing to comply with applicable standards like Electromagnetic Interference (IEC 60601 series), Electromagnetic Compatibility (IEC 60601-1-2 series), Electrical safety testing, Biocompatibility (ISO 10993), Good Manufacturing Practices (ISO 13485), Software testing (IEC 62304), Material testing (Relevant ASTM Standards), and Radiation protection (IEC 60601-1-3). In addition, Rapid Prototyping and Health technology Assessment services are also available. If required, start-ups may also apply for voluntary NIPUN certificate. The cost of tests varies depending on parameters, duration of testing, testing chamber configurations and number of units required to be tested. The testing charges are subsidized for BIRAC-referred start-ups to an extent of 40%-70%.

Website Link:
https://birac.nic.in/desc_new.php?id=426

Vrkush Ecosystem put forward COVID Accelerator for start-ups to build resilience in tough times

To extend the support to all innovations happening across the country, Vrkush Ecosystem have put forward a COVID Accelerator for start-ups/innovators working to solve the challenges

caused by this pandemic. This accelerator is a part of World Economic Forum Global Shapers Covid Task Force.

Vrkush ecosystem would provide accelerated support to an innovator/start-up who has developed a working prototype, so that they get the innovation out to the masses. They will be supported with Government Access, Testing or Manufacturing Support, and Funding Opportunities.

Website link:
https://www.startupsvscovid.com/programs/recpw9zlksVZvFPzE

Break Corona - Ideas and Solutions to fight against coronavirus



Kerala Startup Mission, on behalf of the Government of Kerala, called for innovative ideas and solutions to defend and hunt down the Global Pandemic from the Avengers around us.

Kerala Startup Mission are seeking ideas and solutions that have been proven or used in some other scenario, i.e., product/projects with a PoC/and have potential usage in the fight against Coronavirus only to be submitted. Students, innovators and start-ups can take part in this mission.

The categories under this mission are: Ideas to support COVID-19 Patients; to support Quarantine COVID-19 patients; to arrest Community Outbreak; for effective Logistics & Distribution; to support vulnerable people; to support system during Shutdown; support during economic slowdown if happens; do It Yourself (DIY) Projects (Creating masks, sanitizers, gloves, etc.); and to create Employment opportunities during lockdown.

Website link:
https://breakcorona.in/
https://www.startupsvscovid.com/programs/reczI2VN0ddO0ygg0

The Leap: Solutions for Humanity

Bridge for Billions launched a sponsored online incubation programme to support early-stage founders to develop solutions that will improve people's lives during the COVID-19 outbreak.

Bridge for Billions is a digital ecosystem of entrepreneurship programmes that provides the right tools and guidance to early-stage entrepreneurs to develop their companies through a learn-by-doing methodology. All early-stage founders with projects had applied to online incubation program under eight broad categories.

Website link:
https://www.bridgeforbillions.org/the-leap-solutions-for-humanity-entrepreneurs/
https://www.startupsvscovid.com/programs/recuMCXnf1Kti4RPe

UNDP in partnership with Hackster.io announced the COVID-19 detect and protect challenge

The COVID-19 Detect and Protect Challenge is a joint innovation challenge launched in mid-April by the United Nations Development Programme (UNDP) and Hackster.io. It is an opportunity to find and apply the best and brightest of humanity, wherever it may be found.

The innovation challenge provided innovators, makers, and developers globally an opportunity to identify open-source, low-tech, and inexpensive hardware solutions to support developing countries in tackling and recovering from COVID-19.

This challenge has three priority actions:

- Design replicable, low-cost tools to aid in coronavirus detection;
- Reduce the disease's impact on economies of these vulnerable areas; and
- Flatten the curve in communities with preventive solutions.

Website link:
https://www.hackster.io/contests/UNDPCOVID19
https://www.startupsvscovid.com/programs/recdxQzSA5EDXQmsS

DPIIT in collaboration with CII invited solution to digitize national Kirana ecosystem

There is a mandate from the Government to ensure adequate supply of essential goods to consumers during the lockdown period due to the COVID-19 situation. The Government has also instructed pharmacy and grocery stores to remain open through the lockdown period and to provide home delivery of essential food supplies and medicines.

To solve the challenge of providing essential goods to the Indian citizens during the COVID-19 situation, the Department for Promotion of Industry & Internal Trade along with the Confederation of All India Traders is synergizing the efforts of various companies and start-ups working in supply chain to help the local Kirana stores take orders online and ensure last-mile contactless delivery.

In this regard, an Expression of Interest (EOI) via an application form is invited from all companies who specialize in IT Solutions and Logistical support solutions among others with a broader reach/network across the country to come forward and strengthen this delivery mechanism.



Website link:
https://startupindia.gov.in/content/sih/en/ams-application/challenge.html?applicationId=5ea181f8e4b0363cb6335eea
https://www.startupsvscovid.com/programs/recdEb0HdOCqO859s

Plug and Play Announces Launch of COVID-19 Startup Accelerator

Plug and Play have launched a global COVID-19 accelerator dedicated to scaling the world's most promising start-ups who can help address the coronavirus pandemic. The programme focuses on existing technologies that can achieve massive scale across three tracks: healthcare, enterprise, and supply chain.



Website link:
https://www.plugandplaytechcenter.com/covid-19/
https://www.startupsvscovid.com/programs/recc24JskCrIvTK66

CoVIDathon built privacy-centric solutions for CoVID-19 using AI & Blockchain technologies

The Decentralized AI Alliance, under leadership of SingularityNET and Ocean Protocol, is bringing together global AI and blockchain projects and developers to create intelligent decentralized tools to combat COVID-19 and to reduce risks from future infectious outbreaks. Hackathon participants are invited to contribute to multiple tracks.

The goal is to unite in the fight against COVID-19. Together we can develop and launch open-source code using AI and/or blockchain to combat COVID-19, reduce risks from future infectious outbreaks, and cope with the COVID-19 pandemic situation.



Website link:
https://covidathon.devpost.com/?ref_content=default&ref_feature=challenge&ref_medium=discover
https://www.startupsvscovid.com/programs/recanfewfVnnxRTTk

WorldV3 announced Call for Proposals to solve challenges faced during pandemic

WorldV3 announced Call for Proposals to solve challenges faced during pandemic. World v3 is a platform to solve challenges faced due to COVID-19 pandemic, starting with generating more ideas like for start-ups, the government, and the public.

Website link:
https://www.startupsvscovid.com/programs/recZMUA6APYPqKxfA

Invest India Business Immunity Platform launched to helping businesses withstand COVID-19

As the world is currently looking at a serious healthcare challenge caused by the pandemic COVID-19, Invest India with its innovation programmes Start-up India and AGNIi (Accelerating Growth of New India's Innovations) is scouting for innovative technologies and solutions for precautionary as well as treatment-related interventions. Invest India is building a one-stop repository of innovative solutions for ready access by the government and the private sector for further development and deployment.

Invest India, India's national Investment Promotion and Facilitation Agency, under the Ministry of Commerce and Industry, has launched The Invest India Business Immunity Platform (BIP). The platform, hosted on the Invest India website, is designed as a comprehensive resource to help businesses and investors get real-time updates on India's active response to COVID-19.

This dynamic and constantly updating platform keeps a regular track on developments with respect to the virus, provides latest information on various central and state government initiatives, gives access to special provisions, and answers and resolves queries through emails and on WhatsApp. BIP is the active platform for business issue redressal, operating 24/7, with



a team of dedicated sector experts and responding to queries at the earliest. Invest India has also announced a partnership with SIDBI (Small Industries Development Bank of India) for responding and resolving queries for MSMEs.

Website link:
https://www.startupsvscovid.com/programs/recW5nhhTKZ6BiKRl
https://www.investindia.gov.in/bip

DBT India Alliance invites applications for Team Science Grants

DBT India Alliance had invited applications for Team Science Grants. Team Science Grants will fund team of researchers who bring together complementary skills, knowledge, and resources to address an important health challenge for India. These grants will also fund high-risk, high-reward research work.

Website link:
https://www.indiaalliance.org/team-science-grants
https://www.startupsvscovid.com/programs/recVSOecpxrzpYdPx

Hacker Earth announced hackCOVID

Hacker Earth invited the global community of data scientists, entrepreneurs, social workers, designers, and engineers to join hands and serve society during this crisis. Hacker Earth invited developers across the globe to build prototypes that will help industries mitigate and administer the Coronavirus outbreak and its implications.



Website link:
https://www.hackerearth.com/challenges/hackathon/hackerearth-hackcovid/
https://www.startupsvscovid.com/programs/rec5PGp5kHXBI5oCq

SAMHAR-COVID19 – supercomputing using AI, ML, healthcare analytics-based research for combating COVID-19

C-DAC has launched SAMHAR-COVID19 in partnership with National Supercomputing Mission (NSM) Consortia Members, Startups and Industries, to build a Rapid Supercomputing System and Research Community for India to fight COVID-19. It is proposed to create a Consortium of researchers as virtual 'Rapid Researchers Task Force (RRTF), SAMHAR-COVID19.' The initiative is partnered and co-supported by Ministry of Electronics and Information Technology (MeitY).



Website link:
https://samhar-covid19hackathon.cdac.in/#time-section
https://www.startupsvscovid.com/programs/recAxrEQRFnK8Wxu2

Discovery by Innovative Solutions: A Call by Startup India

COVID-19 has forced us to up our innovation game to deal with the pandemic. Startup India has invited an application form for all companies that is making products not regulated by the CDSCO, they must comply on a voluntary basis with the following to be at par with internationally accepted safety standards that is ISO 13485 and CDSCO's Essential Principle Checklist.

Website link:
https://www.startupindia.gov.in/content/sih/en/covid-19_resource_section.html
https://www.startupsvscovid.com/programs/recTqXkI4VHIt62GV

UNHIE and Social Alpha announced program for start-ups to fight COVID-19 challenge

Social Alpha in partnership with United Nation's Health Innovation Exchange (UNHIE) has launched a program to support the impactful solutions to fight COVID-19 challenge by innovators and start-ups. The applications may include technologically innovative solutions towards:

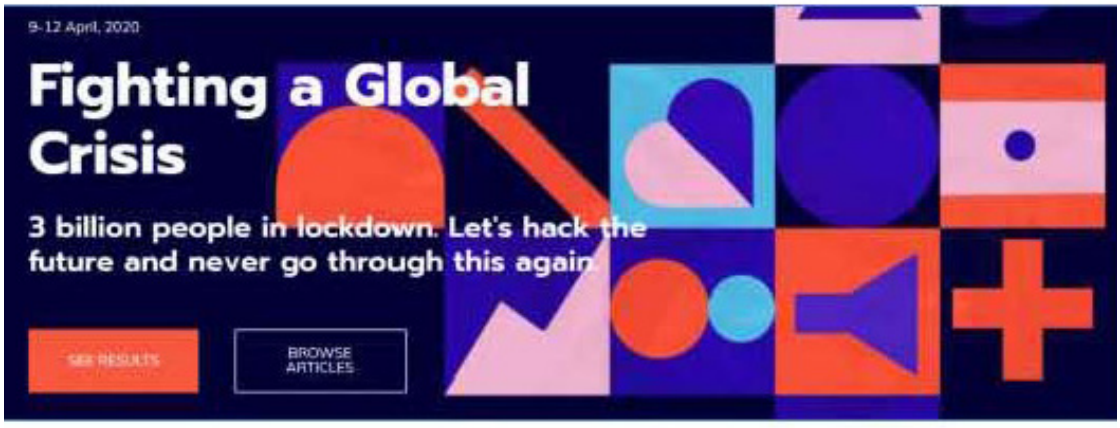
1. Mobile health technologies for screening and homecare;
2. Diagnostic kits and point-of-care tests;
3. Protective gear and sterilization innovations for care providers;
4. Digital triaging and risk stratifying systems;
5. Low-cost ventilators and oxygen therapy units;

6. AI systems to assist critical care;
7. Supply chain innovations;
8. Volunteerism and service innovations; and
9. Scalable plug-and-play isolation units, treatment tents.

Website link:
https://www.startupsvscovid.com/programs/recTfPUMjdGwruWOj

The Global Hack movement

The Global Hack is a global initiative which unites the Hack the Crisis movement and the 40+ hackathons organized in the frames of this movement. This is truly a global effort and movement involving communities and organizers from all over the world. The Global Hack happened during 9-12 April and was created to fight out the problems we are facing globally in the midst of the crisis as well as creating solutions for the post-crisis world.



Website link:
https://theglobalhack.com/

MIT Solve Health Security & Pandemics Challenge 2020

MIT Solve 2020 Challenge is seeking tech innovations that can slow and track the spread of an emerging outbreak, for example by improving individual hygiene, developing low-cost rapid diagnostics, analysing data that informs decision making, and providing tools that support and protect health workers.

MIT Solve's Health Security & Pandemics Challenge 2020 is also seeking solutions that focus on preventative and mitigation measures that strengthen access to affordable primary healthcare systems, enhance disease surveillance systems, and improve healthcare supply chains.



Website link:
https://solve.mit.edu/challenges/health-security-pandemics

InspireMe accelerator Program for disruptive healthcare start-ups focusing on COVID-19

InspireMe accelerator Program provided access to capital and strategic advice to accelerate the learning curve of the start-up journey. It is an intensive online three-month program with an investment up to $100k. It includes Product Validation; achieving product-market fit; developing a successful Branding and digital strategy marketing plan, and sales strategy; Access to industry partnerships with technology companies like IBM, Microsoft etc. and fundraising support; advise on Legal and regulatory services, Tax planning, Compliance services; Free partner offerings like Cloud services and software packages.

The program is looking for disruptive healthcare start-ups focusing on COVID-19 in the following areas: Tests/diagnostics, treatments and vaccines, equipment for hospitals, ways to reduce transmission, monitoring and data infrastructure and tools for Research and Development.

Website link:
http://mobelization.com/
https://www.startupsvscovid.com/programs/recQBRJcmol54UBYG

NASA announced Space Apps COVID-19 Challenge

National Aeronautics and Space Administration (NASA), the European Space Agency, the Japan Aerospace Exploration Agency, the Canadian Space Agency (CSA), and the National Centre for Space Studies have launched a special, all-virtual spin-off of NASA's Space Apps Challenge.

NASA's Space Apps COVID-19 challenge is a virtual, international hackathon with the goal of using Earth Observation data to better understand the societal and environmental impacts of COVID-19.



Website link:
https://covid19.spaceappschallenge.org/
https://www.startupsvscovid.com/programs/recOcd7scHA2gEEjr

Black & Veatch initiated COVID-19 Response Accelerator

The Black & Veatch COVID-19 Response Accelerator is designed for growing companies looking to scale emerging solutions to save lives and help communities cope and protect the economy.

Website link:
https://bv.com/ignite
https://www.startupsvscovid.com/programs/recJKKlArGQCwO7Ia

The Resiliency Challenge: Helping communities and colleges cope with the COVID-19 crisis

The Resiliency Challenge is a nine-week, virtual hackathon, with three-week sprint challenges aimed at catalysing student innovation in response to the unprecedented situation facing colleges and communities in the wake of the coronavirus pandemic. The goal is to bring the talents of the university technology community together with subject matter experts to envision, design, develop, and deliver solutions to help communities, students, and colleges cope with the challenges of the current COVID-19 crisis.



Website link:

https://theresiliencychallenge.devpost.com/?ref_content=default&ref_feature=challenge&ref_medium=discover

https://www.startupsvscovid.com/programs/recBdpZtBtI6Mt6HR

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RESEARCH & TECHNOLOGIES

Acculi Labs brings mobile app for detection & risk assessment of COVID-19-infected individuals

The Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) is an initiative by National Science & Technology Entrepreneurship Development Board (NSTEDB), DST, Government of India.

Given the impact of COVID-19 globally and in India, the need of the hour is to support R&D efforts in this direction and end any further damage to the economy. DST is supporting innovations offering comprehensive solutions through the start-up ecosystem.

CAWACH is supporting market-ready innovations in the areas of diagnostics, devices, informatics including bio-informatics and information management systems, any intervention for the control of COVID-19 and/or start-up ideas to address/mitigate various challenges faced by the country/society due to severe impact of COVID-19.

Novel methods to supplement the early detection of the disease and risk assessment of infected population to prioritise the conventional testing queue through mass screening are crucial challenges that the COVID-19 pandemic has thrown up. Combating the crisis needs technological solutions that can carry this out rapidly while minimizing risk for healthcare professionals.

CAWACH selected Bangalore-based start-up Acculi Labs, that had 'Lyfas' a clinical-grade, non-invasive, digital functional biomarker smartphone tool for screening, early detection, root cause analysis, acute event risk assessment, and prognosis and home monitoring of chronic diseases. It repurposed this technology to develop a COVID risk assessment profile called Lyfas COVID score.

The new technology was developed with support from the DST. It will detect the possible infection in an asymptomatic individual to prioritise the conventional testing queue as well as carry out risk assessment of an asymptomatic individual to become symptomatic and risk assessment of a symptomatic individual for recovery.

In March 2020, DST collaborated to support technologies that are solving problems associated with COVID-19. Acculi Labs was selected after several rounds of screening for a solution towards mass screening. Its product, Lyfas, has received a grant of Rs. 30 lakh from DST and is now virtually supported by IIT Madras, Healthcare Technology Innovation Centre (HTIC), MedTech Incubator.

Lyfas is an Android application in which if someone keeps the index finger on the rear phone camera of a mobile phone for 5 minutes, the app captures the capillary pulse and blood volume change and derives 95 biomarkers with proprietary algorithms and signal processing techniques. It uses the power of smartphone processor and smartphone sensors to capture bunch of body signals. The signals are subsequently processed on the principle of Photoplethysmography (PPG), Photo Chromatography (PCG), Arterial Photoplethysmography (APPG), mobile spirometry, and Pulse Rate Variability (PRV).

Lyfas then provides cardio-respiratory, cardio-vascular, hematology, hemorheology, neurology-based parameters that are capable of tracking minute pathophysiological changes in the body. These changes are further profiled into organ system-wide response.

The technology is focused on population screening, monitoring of quarantined individuals, and surveillance at the community spreading phase. It has been proved to detect asymptomatic individuals with an accuracy of 92%, specificity of 90% and sensitivity of 92% in a study conducted with Medanta Medicity Hospital.

Witnessing the success of the study, Medanta ethics committee has approved for a larger population study. This study is currently registered in *Clinical Trials Registry - India (CTRI)* and is acknowledged by World Health Organisation (WHO). While Aarogya Setu works on contact tracing where one has to enter your symptoms, Lyfas is a proper medical screening test which purely depends upon test result.

Start-ups offering medical equipment catering to doctor's needs in the new normal

Can medical equipment be designed in a manner that can keep doctors safe and cater to unique emergency requirements of the COVID-19 crisis?

Several start-ups supported by the DST are showing the way with stethoscopes that doctors can use without touching the patient, oxygen concentrator that can help the hospitals generate their in-house oxygen, and portable and app-controlled IoT-based ventilator system.

Several Indian medical devices manufacturers and indigenous automation companies took up the pandemic as a challenge and came up with innovative designs of ventilators, portable respiratory aids or devices for contactless diagnosis and monitoring of the patients.

DST, through its CAWACH initiative scouted, evaluated, and supported promising ventilator, respiratory aids, and other vital medical equipment from five companies who have now taken their products to deployment stage.

Ayu Devices, incubated at Society for Innovation and Entrepreneurship (SINE), IIT Bombay in 2017, has developed a digital stethoscope that can help doctors listen to heart and lungs sounds while keeping at a safe distance from the patients. The device identifies abnormal sounds and helps diagnose patients. It is designed as a wireless module to enhance the Bluetooth range and help it to be controlled from a distance. While existing digital stethoscope uses smartphone's Bluetooth, their device works with an additional Bluetooth module to increase the range and consistency in the data. It is also fitted with filters to remove external noise for clear sound making it usable in Indian clinical settings where there is lot of background noise in OPDs. This has enabled doctors to listen to chest sounds while covered in PPEs which is not possible with conventional stethoscope.







They are further scaling up the manufacturing to cater to the increasing need and have successfully commercialised the stethoscope for the telemedicine segment.

A portable Oxygen Concentrator by Ambala-based **WALNUT MEDICAL** helps hospitals generate oxygen in-house. It is an intelligent, closed-loop system which monitors oxygen level and gives enough oxygen to the patient as per the patient's need. This is the first oxygen concentrator made in India and is fitted with automated oxygen flow technology which will prevent patients suffering from hyperoxia.



Walnut Medical Pvt. Ltd.

DST's support helped them push their endeavour forward with 5-litre and 10-litre oxygen concentrator models and oximeter as well. Manufacturing of oxygen concentrators requires huge moulds and the support helped them invest on quality moulds to compete against products from Japan, USA and China. IIT Delhi incubation team worked with them to help the technology see the light of the day.

Walnut Medical will be donating 50 Oxygen Concentrators to SC, ST and Government hospitals and then launch the product in the market.



Nocca Robotics Pvt. Ltd.

Pune-based **Nocca Robotics** has developed a ventilator which operates in both invasive and non-invasive, pressure-controlled mode and solar-powered with low-wattage requirement. It works with medical airline and oxygen as well as ambient air and oxygen and has App-based control and IoT-enabled system.

A smart ventilation system has been offered by Hyderabad-based **Aerobiosys Technologies**. It is portable, cost-effective, IoT-enabled and powered by lithium ion batteries. It operates uninterrupted for 5 hours and is both invasive and non-invasive, with a smartphone app to control the device. The system displays real-time information of the breath pattern and other critical lung parameters. It can attach to an oxygen cylinder and can operate on its own in ambient air.



Aerobiosys Technologies Pvt. Ltd.

Catering to heart diseases, Pune-based **Jeevtronics** has developed a device called defibrillator that restores normal heartbeat by sending an electric pulse or shock to the heart. It is used to prevent or correct an arrhythmia, a heartbeat that is uneven or that is too slow or too fast. They have developed dual-powered defibrillator (grid plus hand cranked), as well as a battery-less defibrillator for sudden cardiac arrest.


Jeevtronics Pvt. Ltd.

SINE, IIT Bombay is the implementation partner for the CAWACH programme. Other eight incubation centres from different zones of India and the Indian STEPs and Incubators Association participated in call for applications, review, and the selection process. The supporting Satellite centres are FITT-IIT Delhi, SIIC-IIT Kanpur, HTIC-IIT Madras, Venture Centre, Pune, IKP Knowledge Park, Hyderabad, and KIIT-TBI, Bhubaneswar.

New age sustainable disinfectants and sanitizers may bring relief from chemical ones with side effects

The days of suffering from dry, itching hands due to rinsing them multiple times with chemical disinfectants and soap as protection against contact infection of COVID-19 may soon be over. A number of start-ups based in different parts of India are now armed with a range of sustainable alternatives to conventional chemical-based decontaminants that can disinfect surfaces and even microcavities.

They also include technologies for disinfection of the biomedical waste generated at hospitals and the use of novel nanomaterials and chemical process innovations for long-lasting and safe sterilization of the recurrent use surfaces.

Safe disinfection and sanitization technologies have come from a total of 10 companies supported for disinfectants and sanitizers under CAWACH, an initiative by the National Science & Technology Entrepreneurship Development Board (NSTEDB), DST, implemented by Society for Innovation and Entrepreneurship (SINE), IIT Bombay.



Mumbai-based start-up **Inphlox Water Systems**, with expertise in treating complex polluted water and wastewater, modified their technology to design and develop a system for space and equipment disinfection to fight COVID-19 contamination titled VAJRA. The VAJRA KE Series uses a disinfection system consisting of a multistage disinfection process by incorporating electrostatic discharge that generates ozone and the powerful sterilizing effects of UVC light spectrum. VAJRA Kavach-E (KE) uses advanced oxidation, electrostatic discharge, and UVC light spectrum to inactivate the viruses, bacteria, and other microbial strains present on the PPE. This saves costs by making the PPE, medical, and nonmedical gears reusable.

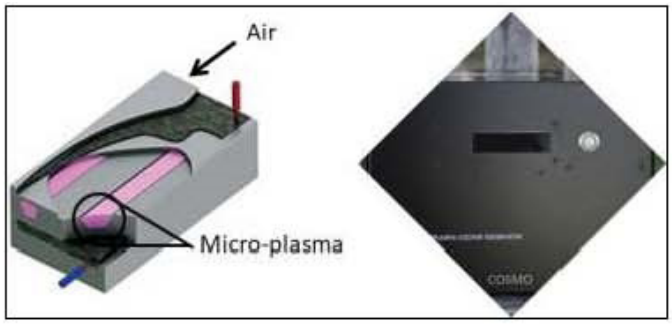


Inphlox Water Systems, which started with the NIDHI-PRAYAS grant from DST (through SINE- IIT Bombay) for innovations in the water sector, used the CAWACH grant from DST to modify their technology to make it suitable for combating the COVID-19 infection. They prepared themselves for manufacturing 25 space disinfection systems per month, streamlined the production, supply chain, and logistics to scale up the manufacturing capacity by 25% with each passing month thereon. At present, they are coordinating with IIT Bombay's and CCMB's (Hyderabad) virology labs for further testing of these systems. The start-up is ready with commercial product versions and is working on improving product certifications so that specialized labs can also use their solutions.



Coimbatore-based **Eta Purification** offers advanced sterilization solutions is using environmentally-sound microcavity plasma technology. This novel technology in which the disinfectant is produced directly from air or oxygen offers a sustainable alternative to conventional chemical-based decontamination.

The COSMO (Complete Sterilization by Microplasma Oxidation) system can rapidly disinfect COVID-19-infected areas, including quarantine facilities, ambulatory care, and equipment surfaces. This innovative micro-plasma sterilization system offers compact and scalable modular units which are robust, flexible, and energy-efficient.



The disinfectant is produced on-site, thereby eliminating the transport, storage, and handling of hazardous chemicals. These decontamination systems are 10 times less than the conventional system of equivalent capacity, making it suitable for resource constraint environments. Their advanced sterilization systems surpass hypochlorite and other traditional disinfectants in its ability to neutralize multi-drug resistant pathogens. The company has already provided customized solutions to hospitals and healthcare settings to sterilize selective critical care areas.

They have also taken this innovation to vulnerable communities. Presently their advanced integrated micro-plasma oxidation system for rapid sterilization has been fully developed and tested rigorously for commercial use.

A mechanical hand sanitizing dispenser machine which quantifies the steps of hand sanitization through touchless, real-time monitoring via dashboard is offered by Chennai based start-up **MicroGO.**

Weinnovate Biosolutions from Pune has developed silver nanoparticles-based non-alcoholic liquid sanitizer. Their technology pending for patent also inhibits the RNA replication activity – preventing spread of the virus and blocks surface glycoproteins – making the virus ineffective.

An instant microwave-based handheld steriliser ATULYA and a microwave-assisted cold sterilization device OPTIMASER for hazardous biomedical waste disinfection and making linen and PPE reusable is the offering from Lucknow-based **Maser Technology.**

OPTIMASER is microwave-assisted cold sterilisation superior technological advancement over the conventional Autoclave. It allows for disinfection and sterilisation of the PPE kits and the masks in order to ensure the 100 reusabilities, also ensuring the cost-effectiveness of the same. ATULYA is an instant microwave-based handheld sterilizer which offers the cutting edge over the UV tube-based steriliser, sanitising sprays and all the possible methods of sterilisation and protection.

Incubators like SINE-IIT Bombay; FITT-IIT Delhi; SIIC-IIT Kanpur; HTIC-IIT Madras; Venture Centre-Pune; IKP Knowledge Park-Hyderabad; and KIIT-TBI, Bhubaneswar provided timely services on evaluation, advice on technical progress, guided the start-ups to follow all necessary guidelines, signing of MoUs and would be tracking their performance also.

COVID-19 detection kits from start-ups through CAWACH initiative

India will soon have the option of choosing from several COVID-19 rapid detection technologies that start-ups are working on currently.

A technology to conduct rapid molecular tests at small clinics, points-of-entry like airports, or small laboratories, a lab on palm platform for Rapid Antibody Test and a test kit with a reader-enabling direct antigen testing in suspected COVID samples are some of them.

The technologies developed by some start-ups have been repurposed and extended for COVID-19 with support from the CAWACH initiative by National Science & Technology

Entrepreneurship Development Board (NSTEDB), DST, implemented by Society for Innovation and Entrepreneurship (SINE), IIT Bombay.

Among 51 companies shortlisted for developing various COVID-19 solutions, 10 have been supported for manufacturing and wide-scale deployment of diagnostic kits and therapy solutions. Most of the technologies are under validation from ICMR and can be made functional once the validation and approval processes are completed and are granted.



OmiX Research and Diagnostics Laboratories extended their OmiX-AMP platform making it suitable for carrying out low-cost molecular COVID-19 tests rapidly with the help of a technology called Loop-mediated isothermal amplification (LAMP), with support from DST. The LAMP tests are run in a colour detection device with in-built machine learning algorithms that correctly identify samples as positives or negatives. It can be deployed in small clinics, points of entry like airports, or small laboratories.

The OmiX-AMP platform and five of the LAMP-based, easy-to-use kits are currently under validation by ICMR. The LAMP technique offers a simpler and easier alternative to RT-PCR in molecular testing and allows deployment of the more accurate molecular testing widely.

The single-tube kits come pre-loaded with all the reagents that are stable in room temperature. The device and in-built machine learning algorithm further provides a low-cost detection system (less than Rs. 50,000) with automated identification of positive and negative cases.

A lab-on-palm platform called 'anuPath' by **PathShodh Healthcare,** incubated in 2015, at the Society for Innovation and & Development, IISc Bangalore, has been repurposed for COVID-19 Rapid Antibody Test.

PathShodh, a one-of-its-kind unique solution, uses an electronic reader in conjunction with disposable test strips, thus eliminating human errors in interpreting results. It is a total antibody test (both IgM and IgG) unlike most of the tests which are only IgG tests. It is a quantitative test, as opposed to the qualitative tests available in the market, which is very important in assessing the immunity level. The limit of detection goes down to 10 nanomolar concentration. The test results can be linked to Aadhar number and Aarogya Setu app.



They have received the CDSCO Test License for manufacturing. The test assay has been fully validated on COVID-19 recombinant antibodies spiked in blood samples. Initial results on actual patient samples have been very encouraging and more tests will be completed soon.

Prantae Solutions OPC has developed a test kit with a reader-enabled direct antigen testing in suspected COVID-19 samples. It is based on the technology called Localized Surface Plasmon Resonance Enhancement which enables quantifiable measurement of proteins at less than 100pg concentrations. The technology is a rapid alternate to RT-PCR and can be deployed at Point-of-Care locations.

The COVID-19 Detection KIT V2.0 **Huwel** contains three ready-to-use Oligo mix for detection of Coronavirus, along with Reverse Transcriptase Enzyme for single-tube RT qPCR amplification having a shelf life of about a year.

Chimera Translational Research Fraternity has developed a technology for delivering a standardised therapeutic dosage of plasma for treatment of COVID-19 patients so that just the right amount of dose is administered to the patient. The Lyophilised - COVID Antibody Rich Product (L-CARP) they have developed provides a safe therapy and avoids transmission of infections by a strategic donor with the help of a screening process. They have developed a bank of L-CARP, to avoid the delay and hassle of finding, screening and withdrawing the plasma at the last minute.

Incubators like SINE IIT Bombay, FITT-IIT Delhi, SIIC-IIT Kanpur, HTIC-IIT Madras, Venture Centre-Pune, IKP Knowledge Park-Hyderabad, and KIIT-TBI, Bhubaneswar provided timely advice on technical progress, guided the start-ups to follow all necessary guidelines, signing of MoUs and so on.

Technology-based start-ups played crucial role in converting India from importer to second largest manufacturer of PPEs

A range of low-cost innovative technologies developed and scaled up by start-ups from different corners of the country played a crucial role in India emerging globally as a the second largest Personal Protective Equipment (PPE) manufacturer in the world's battle against COVID-19.

PPEs like masks and face shields, especially those used by the medical professionals as protection from infection, as they tackle the health emergency is a crucial shield in the battle against COVID-19. India had been importing PPEs at the start of the pandemic, but a range of technologies like affordable mask making machines, low-cost masks, reusable anti-viral and anti-bacterial masks, and safety masks specifically designed for health workers by start-ups helped the country to turn the tables and start exporting them.

Many of these start-ups were supported by the DST under the CAWACH initiative by National Science & Technology Entrepreneurship Development Board (NSTEDB).

Saral Design Solutions a Mumbai-based company that had earlier developed the world's first fully automatic sanitary napkin making machine to produce these essentials locally, repurposed their machine to make 3-ply surgical masks.



Saral Design Solutions Pvt. Ltd.

The fully automatic 3-ply mask making machine called SWACHH enables production of mask locally and hence obviates the necessity of transportation. It produces high quality South India Textile Research Association (SITRA)-certified masks with Spunmelt (SSMMS)-based filter and nose wire at very low cost and employs local people in the process.

Mahindra Group took the machine to their plant and started manufacturing masks during the lockdown and leveraged its supply chain to meet the urgent requirement of masks. This was a classic example of start-up–corporate collaboration that combined the agility and innovation of start-up that was scaled up by corporates to cater to the needs of the time.

About 1.4 million masks produced by their innovation have been donated as part of CSR as well as through crowd-funding campaigns to frontline workers such as doctors, police, nurses and district health departments. One of the machines has been set up in Bhiwani, Haryana, with the help of DST CAWACH grant. Masks produced from this machine are being distributed to frontline workers in areas surrounding states of Haryana.

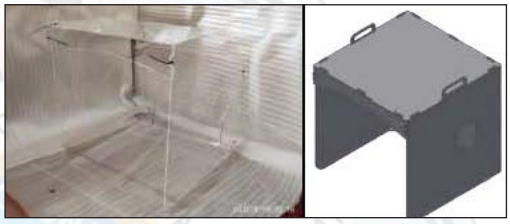
Printalytix Private Limited from Bengaluru has developed three products for protection against infection -- protective face shields, contactless door opener, and intubation boxes. In association with HTIC-IITM, Chennai the company has accelerated the production of these and achieved the scale to meet the market requirements and upgrading affordability, quality and functionality of products. The CAWACH funding and association with HTIC-IITM has helped the company validate their products' design and accelerate manufacturing in large volumes using existing MSME network and supply chain and successful deployment among the target user base.



FACE SHIELD



CONTACTLESS STYLUS

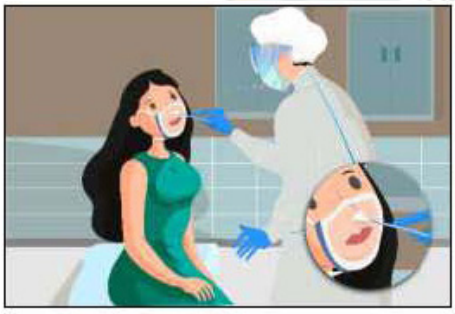


INTUBATION BOX

Nasal or oral swabs needed to test COVID-19 patients are collected in open air or using telephone booth model during the COVID-19 pandemic. Open-air sample collection exposes healthcare practitioners, their immediate work environment, and PPE kits to harmful virus-carrying droplets. On the other hand, telephone booth type model is not suitable for all clinical settings. To help medical professionals collect oral swabs without infecting themselves, **Comofi Medtech** has developed the NT-Mask which is a transparent N95 mask with special access point that provides contactless nasal or oral swabs collection.



The start-up scaled its NT-Mask production in two months and is currently manufacturing 1000 masks per day. The mask complies with required parameters like splash resistance pressure, breathability, and bacterial filtration efficiency. It has been tested and validated by NABCB-accredited lab.





Nanoclean Global based in New Delhi has developed Nasomask, N95/FFP2-grade face mask using nanofibers which is highly efficient against contagious viruses. It has high breathability and negligible breathing resistance.

The start-ups have been hand-held at different stages by SINE IIT Bombay which is the implementation partner for the CAWACH programme. In addition, other eight incubation centres, Indian STEPs and incubators as well as supporting satellite centres identified from different zones across India like FITT-IIT Delhi, SIIC-IIT Kanpur, HTIC-IIT Madras, Venture Centre-Pune, IKP Knowledge Park-Hyderabad, and KIIT-TBI, Bhubaneswar have lent a helping hand to the start-ups at different stages.



Atal Innovation Mission working Group identifying start-up solutions for addressing COVID-19 crises

In order to mitigate the impact of COVID-19, Atal Innovation Mission (AIM) is facilitating an inter-ministerial working group of the Government of India for identifying start-up solutions that can address the current COVID-19 crisis. This group includes representatives from various government ministries/departments such as Department of Science and Technology, Department for Promotion of Industry and Internal Trade, Department of Biotechnology, Startup India, Principal Scientific Advisor's office among others.

Website Link:
https://aim.gov.in/aim-COVID.php

Replicatron Research Labs Pvt Ltd. designed 3D Printed COVID-19 mask with disposable filter

The team of Replicatron Research Labs deigned a 3D Printed COVID-19 mask with disposable filter. The filter which is currently being used inside the mask is having a pore size of 8 microns (surgical mask will have a pore size of 26-50 microns) which filters the virus particles.

Website Link:
http://www.replicatron3d.in/

AMTZ developed TECHRx APP to help all innovators

Andhra Pradesh Medtech Zone (AMTZ), a parent company of AIC-AMTZ MEDI VALLEY, in its efforts to pace in curbing shortage of ventilators, COVID-19 targeted products, had developed TECHRx APP to help all innovators, start-ups and manufacturers to connect with Electronic Spares, Components and Machinery suppliers. AMTZ is a medical devices manufacturing park near Vishakapatnam in Andhra Pradesh, set up by the Government of Andhra Pradesh.

Website Link:
https://play.google.com/store/apps/details?id=com.covid.components

AIC-Raise 3D Printing Devices to support healthcare

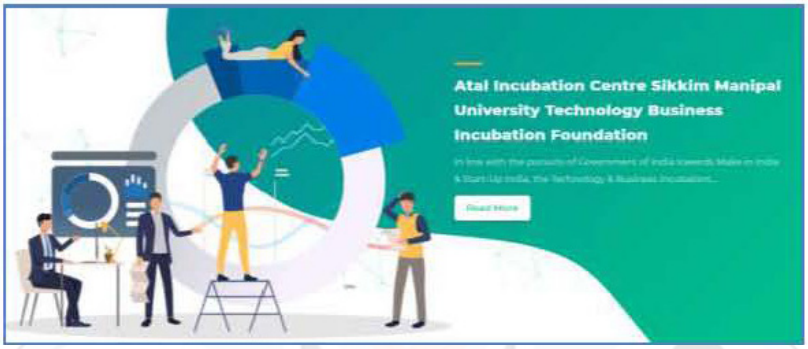
Healthcare workers are on the frontlines of the COVID-19 pandemic. AIC Raise (supported by Atal Innovation Mission) designed 3D printed devices to support healthcare workers to overcome the COVID-19 situation.



Website Link:
https://aicraise.com/facemask3dprint/

AIC–SMUTBI 3D Printing mask

AIC-SMU Technology Business Incubation Foundation (AIC-SMUTBI), which is supported by Atal Innovation Mission, made 3D printed mask as an intervention to the acute shortage of mask. The mask can be converted to N95 standards with the filters being replaced with 0.3 microns fibre/materials.



Website Link:
http://www.smutbi.com/

Rises Analytics Solutions AI-enabled diagnostic decision making support

Rises Analytics Solutions is a start-up that provides AI-enabled diagnostic decision making support for pulmonary diseases. Its algorithm studies medical imaging and pathological data to instantaneously generate indicative analysis. In a situation such as COVID-19 pandemic, such a solution gives crucial support to government and healthcare agencies in carrying mass level testing and diagnosis.

Website Link:
https://rises.io/

GermiBAN designed by NEO Inventronix

GermiBAN is a device that kills virus and other germs by sterilising, sanitising and disinfecting any room of size varying from 900 sqft to 1000 sqft. It also neutralises gases like NOx and SOx that cause air pollution and act as Air Purifier, Sanitiser and Steriliser. The device is also active in killing Coronavirus in the air thereby stopping the spread. GermiBAN™ offers quick sterilization for Hospitals, Bio Hazard Zones, Operation Theatres, ICUs, NICUs, Buses, Railway compartments, Courier service warehouses, as well as in assisted living and extended care facilities.



Website Link:
http://neoinventronix.com/products.html

AI Highway developed a pre-screening and triage tool (beta stage) for COVID-19

AI Highway, incubated at EIC IISC had developed a pre-screening and triage tool (beta stage) for COVID-19 to help self-monitoring and patients-at-home isolation, so that there is no rush to clinics, hospitals and avoid panic. They have developed this tool based on age, travel, clinical signs/symptoms, co-morbid conditions, contact history plus case fatality rates so far.



Website Link:
https://aisteth.aihighway.org/

CoSara developed diagnostic kit for COVID-19

CoSara Diagnostics Private Limited, a Joint Venture of a subsidiary of Ambalal Sarabhai Enterprises Limited and Co-Diagnostics, Inc., Salt Lake City, Utah, USA has developed a diagnostic kit for COVID-19, which already has approval from the US Food and Drug Administration (FDA). In India, the firm has received a research test licence from the Central Drugs Standard Control Organisation (CDSCO) and is in the process of obtaining a full-fledged manufacturing licence.

Website Link:
https://codiagnostics.com/products/diagnostic-solutions/logix-smart-COVID19/

Peptris Technologies developed AI/ML-based computational platform to accelerate the process of finding novel drugs

Peptris Technologies had developed AI/ML-based computational platform to accelerate the process of finding novel drugs. Pharma R&D efficiency is decreasing steadily, while the cost of new drug discovery is increasing exponentially. Vast amounts of structured data are being generated by the use of high throughput technologies in drug discovery/development. This unique platform technology is not specific to any target and aims to address a wide range of problems from predicting individual properties to analyse system interactions, including scenarios involving novel targets.

Website Link:
https://www.peptris.com/#technology

'Saans' designed by Coeo Labs

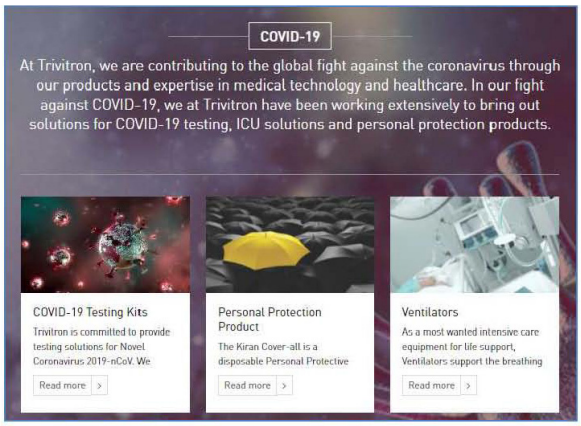
All neonatal transport CPAP machines (including bubble CPAPs) currently require electrical power or compressed gases to function - neither of which is easily available in low-resource settings.

Coeo Labs' product Saans is designed to provide CPAP in resource-constrained settings by following key functions: Multi-Power mode including manual, needs minimum skill, aligned with various transport mode in the India, user-determined Oxygen, Air mixture, and passive humidification.

Website Link:
https://www.coeo.in/i/construction

Trivitron Healthcare fights against Coronavirus

Trivitron Healthcare, a medical technology company is contributing to the global fight against the Coronavirus through its products and expertise in medical technology and healthcare. Trivitron has been working extensively to bring out solutions for COVID-19 testing kits, ICU solutions and personal protection products and Ventilators.



Website Link:
https://www.trivitron.com/

Thermaissance technology for killing coronavirus

Thermaissance is a line of functional and smart clothing exclusively created for patients and hospital staff that provides them with much needed protection, privacy and comfort. The clothing is made of smart fabric, is anti-bacterial treated, and provides with easy accessibility/ wearability. These products are made using Thermaissance's nano technology that has been proven to inactivate more than 99.99% coronavirus. Thermaissance technology successfully kills 99.99% of gram-positive and gram-negative bacteria.



Website Link:
https://www.thermaissance.com/

Jiyyo Patient Care Coordination Platform

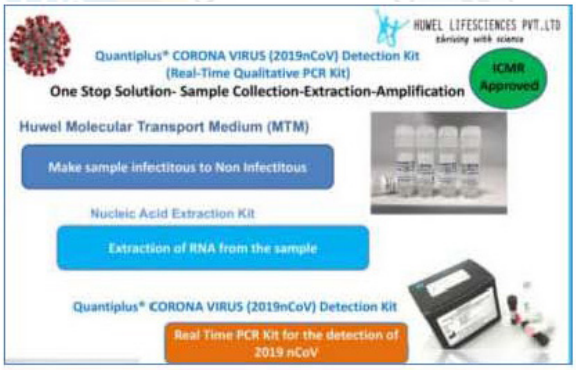
Jiyyo is an AI-enabled Patient Care Coordination Platform (mobile/web) which focuses on TeleMedicine and Networking features for doctor-doctor, patient-doctor, patient-chemist, and hospital-doctor interactions.



Website Link:
https://www.jiyyo.com/

Quantiplus Coronavirus made by Huwel Life Sciences

Huwel Life Sciences designed Quantiplus Coronavirus (2019-nCoV), Real-Time RT-PCR Kit that is used for the qualitative detection of a novel coronavirus in upper respiratory tract specimens (nasopharyngeal extracts, deep cough sputum, etc.) and lower respiratory tract specimens (alveoli irrigation fluid, etc.) by real-time PCR systems. Huwel Lifesciences Pvt. Ltd. is a high-end molecular diagnostics kit manufacturer which enables reference labs and hospitals to provide reliable and high-quality diagnostics services to clinicians.



Website Link:
http://www.huwellifesciences.in/

Face shield manufactured by Rut3 Engineering Pvt Ltd

Rut3 Engineering Pvt. Ltd, a start-up of incubator AIC – Pinnacle is assisting in manufacturing, packaging and distribution of face shield. Rapid printing and distribution of face shields is filling out the gap in the market supply of masks. Rut3 Engineering Private Limited is an Indian non-Government Company that is majorly manufacturing machinery and equipment s and currently involved in active operations.






Website Link:
https://www.aic-pinnacle.org/

NionAI Labs has developed a design of low cost ventilator with wireless control



NionAI has developed a design of Low cost ventilator with wireless control. It uses a BVM bag and PEEP valve. BVM Bag is compressed using a mechanical setup and equipped with sensors that read air pressure, volume, and air flow rate. The compression rate and air pressure is maintained by a microcomputer and can be adjusted as per the patients' requirement.

Website Link:
https://www.nionlabs.com/

'From the originals' innovated unique and original products aimed to safeguard from COVID-19

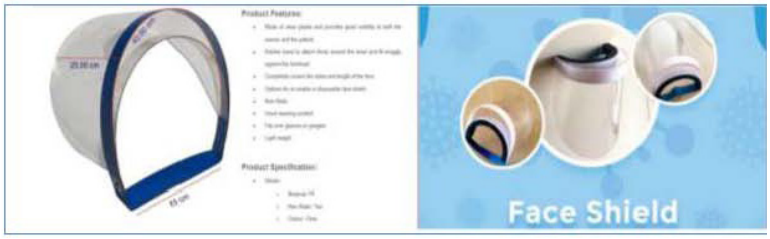
'From the Originals' is created with the idea of innovating something unique and original which is non-existing in the world. The face shield is an essential item of COVID-19 protection kit. The Team made face shields with comfortable cotton cushion headband and stretchable elastic band closure which makes them reusable, washable and durable.



Website Link:
https://fromtheoriginals.com/

Fountlab Solutions Pvt Ltd made face shield

Contamination of mucous membranes of the eyes, nose and mouth is likely in a scenario of droplets generated by cough, sneeze of an infected person or aerosol generating procedures carried out in a clinical setting. Touching the eyes/nose/mouth with the contaminated hand inadvertently is another likely scenario. Hence, protection of the mucous membranes of the eyes/nose/mouth by using face shields is an integral part of the standard and contact precautions. To curb this situation, Fountlab Solutions Pvt. Ltd had made face shield. It is lightweight and provides protection from direct exposure to unhealthy surroundings. The face shields can be worn with or without glasses or goggles.



Website Link:
https://www.aic-pinnacle.org/wp-content/uploads/2020/04/FountLab-Solutions-Covid-19-Project.pdf

Machbee in collaboration with iCube Design Studio and RIOD Logic Pvt Ltd developed 'Jeeva Vaayu' ventilator

Machbee, in collaboration with iCube Design Studio and RIOD Logic Pvt Ltd, had developed 'Jeeva Vaayu' ventilator which utilizes an automated Ambu bag mechanism and provides a solution to solve all the problems of emergency ventilators besides meeting the rising demand for high efficiency respirators. The product not only acts as respirator but also monitors the patient's respiratory parameters such as pressure, volume control, airflow with backup battery mechanisms.



Minister for Agriculture V.S. Sunil Kumar handing over the ventilator to the Ernakulam General Hospital on Saturday.

Website Link:
https://riod.in/

Caller Desk Voice communication platform

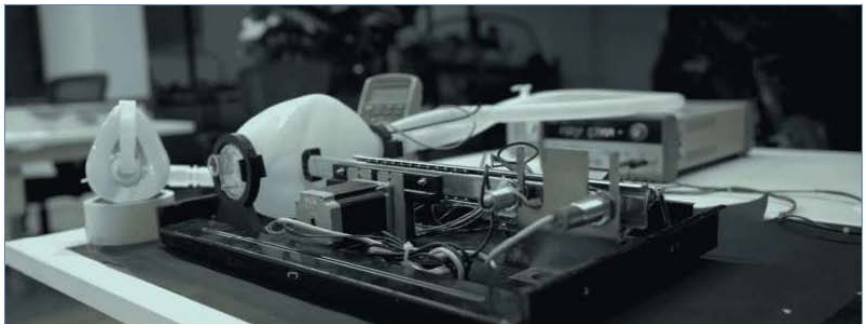
Caller Desk is a cloud-based voice communication platform for businesses so that in this COVID-19 situation, companies can track all its business-related incoming and outgoing calls which are specially handled by the employees. The team can add notes of all calls and track follow-up actions and customer feedback. Also, it can be used for dedicated virtual call centre solution as well to handle health-related queries.



Website Link:
https://callerdesk.io/

JK Data Systems develops ventilator JK MV 101

JK Data Systems has released a ventilator named JK MV 101 with all electronic features for less than Rs. 25000. The device can monitor control of the tidal volume, breath per minute and inspiration-expiration ratio adjustments. It is also enhanced with pressure, flow and oxygen monitoring systems.



Website Link:
https://aicraise.com/ventilator/

Arago Electric Pvt. Ltd. creates GPS and Bluetooth tracking system

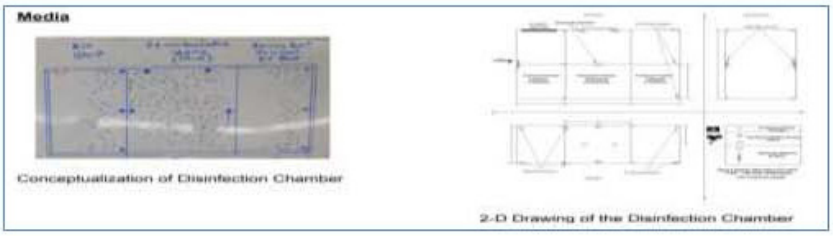
Arago Electric Pvt. Ltd. is a product-driven company working on the design and development of electric vehicle components which include the motor, motor controller, power converter and vehicle telemetry module. The movement of infected people needs to be monitored during the quarantine period and alert the officials in case of evasion and track them at the earliest. Arago Electric created a GPS and Bluetooth tracking system with Geo-fencing for these people limiting their movement to the house. They also had a mechanism to track the person in case of evasion and alert the local officials to take appropriate action at the earliest.



Website Link:
http://www.aragoelectric.in/

Autogrid Mobility initiatives for COVID-19

Autogrid Mobility Pvt Ltd, incubate of AIC-Pinnacle, modified the entire smart mobility scenario with frugal software and hardware solutions for being powered on a single platform. During the lockdowns, it has been observed that people mostly assemble at shops for essentials and hospitals. These are the places where shopkeepers and medical staff like doctors and nurses interact with more than 25 individuals every day. Even if one of the individuals arriving at these places is infected, it can result in the staff getting infected and then it may pass on to the other individuals who visit the place to buy essentials or to seek medical aid. To make sure that these locations do not become the next epicentre for spreading the virus, Autogrid Mobility proposed that there should be walk-through modular decontamination chambers with three different sections for walking.



Website Link:
https://www.aic-pinnacle.org/wp-content/uploads/2020/04/Autogrid-Mobility-COVID-19-Project.pdf

Adivid Technologies Pvt Ltd develops Online Vehicle e-Pass System

Adivid Technologies has developed an Online Vehicle e-Pass System for vehicles moving for essential services (medical, food, government, transportation etc.) or emergencies. Citizens can call their respective SP/CP office or contact nearby police station to share the details (Name, Vehicle number, reason). The Police will send the ePass with a validity date, which citizens have to paste on their vehicles while moving.

Website Link:
https://adivid.com/

Safetap providing vital information regarding COVID-19 pandemic

Safetap is working in partnership with share60minutes to provide vital information regarding the COVID-19 pandemic and the resource provided by the government of Rajasthan and Government of India. The Web portal includes dynamically updated contact details and information about NGOs, civil societies as well as individuals working in this situation.

Website Link:
http://share60minutes.org/safetap/

Piltover Technologies and Manipal University Jaipur collaborating to develop assistive technologies to reinforce the fight against the COVID-19 outbreak

Piltover Technologies and Manipal University Jaipur are collaborating to develop assistive technologies to reinforce the fight against the COVID-19 outbreak. The team is working on an array of products to facilitate health professionals and officials working on the ground. The range of 3D printed products include Bolstered face shields, Bi-Directional one way valve and Venturi splitter for ventilators, comfort headbands for masks for prolonged use.



Website Link:
https://www.piltovertechnologies.com/covid-19/index.php

Autodrive Technologies offers solutions to alert about people not wearing masks

With strong expertise in Machine Learning and Computer Vision, Autodrive Technologies Pvt Ltd offers camera-based smart solutions. As confirmed cases of COVID-19 continue to rise, WHO is recommending everyone to wear a face mask whenever going outside. Face masks can help prevent the spread of the disease and protect someone from getting sick. To improve adherence to facemask guidelines, Autodrive Technologies designed a camera that alerts the concerned person for those people who are not wearing face masks. The camera will be very useful for delivery vehicles, offices, malls etc.



Website Link:
https://www.autodrivetech.com/

Grasp Bionics & builds Bionic devices to bring in a positive change in the lives of people

Grasp Bionics designs and builds bionic devices to bring in a positive change in the lives of people by providing appropriate and affordable solutions. To tackle with the COVID-19 problem, Grasp Bionics developed two products: A UVC-based sterilization unit which can be kept at offices/ homes for sterilizing inanimate objects like keys, wallets, glasses etc. and Anti-touch band that prevents one from touching their face accidentally.



Website Link:
http://graspbionics.com/about.html

Geospatial analysis and location intelligence by Vasundharaa Geo Technologies Pvt. Ltd.

Vasundharaa Geo Technologies is providing geospatial analysis and location intelligence to the Municipal Corporations of Pune, Solapur and Ulhasnagar under the Cities COVID19 Response. Data of hospital capacity and daily location details of active cases are analysed with respect to the city and its resources and critical insights are provided through the predictive models to the stakeholders for crisis mitigation.

Website Link:
http://www.dharaatech.in/

COVID-19 Health Technologies from Indian Institute of Technology (IIT) Kharagpur

Today the COVID-19 cases have crossed 8000 and therefore the need for eHealth technologies is crucial in a country with more than billion people under home quarantine. Four alumni starts-ups from Indian Institute of Technology (IIT) Kharagpur have developed technologies to offer assistance towards surveillance, mass-scale sanitization and automatization of dissemination of official information related to novel coronavirus.



Website Link:
https://kgpchronicle.iitkgp.ac.in/alumni-innovate-COVID-19-health-technologies/

IIT Delhi-incubated start-up launches antimicrobial water storage containers 'AqCure'

Mixing traditional science with nanotechnology, IIT Delhi-incubated start-up Nanosafe Solutions has developed a range of antimicrobial, i.e., antiviral, antibacterial and antifungal water storage containers and launched it as "AqCure", which is based on the inherent antimicrobial properties of copper. AqCure is a patented technology in which active nano-copper is released in a sustainable manner from a polymer matrix. The released copper makes the outer and inner surface of the container antimicrobial, reducing transmission of microbes upon direct contact, and making the stored water microbiologically safe.



Website Link:
https://home.iitd.ac.in/press-antim.php

IIT Delhi start-ups E-TEX and Clensta launch antiviral protection kit for masses

With an ambition to provide protective cover to people, two IIT Delhi-incubated start-ups E-TEX and Clensta have teamed up and launched a complete antiviral protection kit for masses at an affordable price on the occasion of Mahatma Gandhi's 151st Birth Anniversary.



The antiviral kit, unveiled by Prof V. Ramgopal Rao, Director, IIT Delhi, consists of a novel Clensta protection lotion and hand sanitiser; E-TEX Kawach Antiviral T-Shirt, and Kawach Mask.

Website Link:
https://home.iitd.ac.in/startup-etex.php

Mapping Infections: RAMJA GENOSENSOR

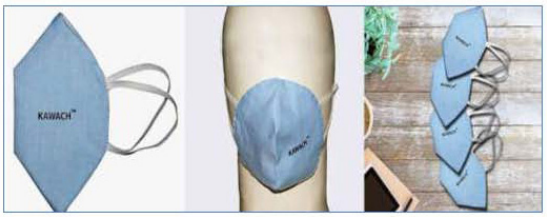
RAMJA GENOSENSOR is a med-tech start-up on creating a state-of-art-technology for an early detection of infection. The team consist of 5-10 people, all from diverse field. The start-up has received BIRAC and Pfizer grant and is currently incubating at Foundation for Innovation and technology transfer (FITT), IIT Delhi. It has also been incubated at NEXUS, American Center at US embassy. For COVID-19 they are developing nano spray, which will be anti-bacterial, antiviral and anti-fungal.



Website Link:
https://home.iitd.ac.in/startup-ramja.php

An affordable mask to protect from COVID-19

ETEX, a Smart Textile start-up incubated at IIT Delhi, is working towards innovative engineering solutions for healthcare. Being the first mover in the wearable e-textile market in the country, ETEX aims on fulfilling the need of functional and advanced textile solutions to solve the real lifestyle issues related to pain management, posture correction, health monitoring and protection (against pollution, COVID-19, etc.).



Website Link:
https://home.iitd.ac.in/startup-kawach.php

Managing crowd becomes hi-tech through SCS Technology, developed by 'Be Bound India'

To manage crowd, Be Bound India Private Limited, a Delhi-based start-up, developed SCS technology. The technology utilizes seamless connectivity service by BSNL, by which Government Android Apps will be able to send Push Notifications to consumers who do not have an active internet connection or even if they are in an area with poor data network coverage.

Website link:
https://bit.ly/3qz85wa

Detect Technologies develops Noctua M to monitor large and dynamic crowds

Noctua M is an effective solution to monitor large and dynamic crowds which was developed by Detect Technologies Private Limited, a Chennai-based start-up. It comprises of visual camera and smart megaphone and provides a live feed to the client which helps in live monitoring of people. With the help of a smart megaphone, the client can access the speaker on the drone through the access given by a mobile phone with one tap on the call icon. While the drone surveillance is live, alerts/ messages can be passed on to the people under surveillance with the help of the smart megaphone. Noctua M solution can also be equipped with thermal cameras which help in monitoring people at low-light conditions. Accessing the work areas from the desk in any day/night conditions to pass on the alerts is made easy with Noctua M.



Website link:
https://www.detecttechnologies.com/

AI-powered, Cloud-connected Thermal Scanning of Human Body developed by Faclon Labs

Mumbai-based start-up, Faclon Labs Pvt Ltd, has developed an AI-powered thermal screening solution to effectively measure human body temperature without any manual intervention. It is a very powerful yet compact 4G-LTE and Wi-Fi-enabled device which automatically captures thermal snapshots of every individual passing in front of it. It automatically creates alarms when it detects any feverish person. It is equipped with AI-enabled facial tracking for accurate

localization and tracking of people's temperature. It is also integrated with Faclon IoT platform I/O Sense for further visualization and data analytics. The visual data will help in further analysis to verify the social distancing norms and inspection of safety kit like gloves, masks, etc. Using I/O Sense different historical temperature data trends can be generated. It also provides facilities of dashboard visualizations and can generate different data reports and system-generated alerts.



Website link:
https://faclon.com/

Technodom Pvt Ltd develops KNOWCOVID-19

Technodom Pvt Ltd, a Telangana-based start-up, has developed an application called KNOWCOVID-19. The main aim of this PWA app is to collect the data of the suspected and confirmed people and share it with the health department. The app is based on the COVID-19 symptoms questionnaire for Individual users and volunteers. The users have to answer the COVID-19 questionnaire daily. Based on inputs the tool would analyse the user's health condition and report to the health department automatically, if needed. The health department can access the data in their dashboards, and they can filter suspected or confirmed cases immediately or after 14 days to take proper action to give the proper care to those individuals.

Website link:
https://www.fiuhit.com/

Patented Hermes Advance Screening & Data Gathering Technology to Control COVID-19 developed by Technotronics Global Security Solution

Technotronics Global Security Solution Pvt Ltd, a Maharashtra-based start-up has made their own patented low-cost, intelligent, highly efficient rapid screening and data gathering technology with the following features:

Uses AI Machine learning - Alert system of Spread; Tracks the movement of suspects, infected, quarantine and backtracking; Low cost; Available for both Mobile and non-mobile-based users; Self-Test for home quarantined; Readily deployable and high Level of accuracy; API for data recording of positives from Approved Test kits worldwide; Live monitoring and GEO fencing; Resource Utilization; Multiple reports based on age, sex, city, building, country, etc. and more.

Contact Info: vijay@ttsecure.com

Website link:
https://ttsecure.com/

Yobny Tech develops QueueOne, a virtual queuing platform

Yobny Tech, a Rajasthan-based start-up, developed QueueOne, which provides tools to create and manage virtual queues. In the current pandemic situation, this can save lives as it helps achieve social distancing. The product is SaaS- and IoT-based solution and it can help manage people's movement and avoid the crowd. The product is



deployed in Apollo Hospital (Shishadripuram), Blossom Hospital Pilots - Big Bazar, Brand Factory, and Metro Retail.

Website link:
https://yobny.com/#vip-spot-queue

CargoFL Maztar Platform by Innoctive Technologies to conduct COVID-19 awareness training sessions

CargoFL Maztar Platform provides an App and Tech platform that can be used to screen COVID-19 symptoms and conduct COVID-19 awareness training sessions. The platform has been developed by Innoctive Technologies Pvt Ltd, a Pune-based start-up, working in the domain of AI-driven logistics technology ecosystem. The Pune Public Transport Bus Service, Pune Mahanagar Parivahan Mahamandal Limited (PMPML), is committed to providing its more than 10,000 low-income distribution employees, that is, drivers, conductors, cleaners, sweepers, etc., a corona live symptom reporting (case reporting) facility, timely updates, circulars and SOPs during this Corona pandemic. They are looking for an app for their employees that can help report corona symptoms, reach out to available doctors online, get treated proactively for symptoms, understand quarantine requirements, be able to float important updates and SOPs to their employees and also come up with a Real-Time Corona Readiness Indicator for PMPML.

Website link:
https://cargofl.com/

Techgropse develops mobile applications and web panels using Map, Location, and Bluetooth

Noida-based start-up Techgropse Pvt Ltd has developed mobile applications and web panels using Map, Location, and Bluetooth. This shall solve the problem to officials who can easily manage the quarantine and isolated people and suspects. The data can be shown on a map and can send alerts to aware people to stay away from that area.

Website link:
https://techgropse.com/

Vectorform Software develops Transmission Risk Assessment Tool

Vectorform Software Private Limited, a Hyderabad-based start-up, developed application/tool which is mainly designed for government officials to keep a complete track of the people who have been suggested to quarantine themselves. The Government officials will ask people who might be in contact with people either tested positive for COVID-19 or got in contact with them to download and install the application to track their movements and health vitals. An easy to use the app and effective and detail dashboard for tracking passengers from abroad and secondary people with possible infection The application can also help in defining the Geofencing of the quarantined person and alert the authorities if any movement happens beyond that area. Also, along with health monitoring, essential help to them via this app can also be provided.

Website link:
https://bit.ly/35QMZli

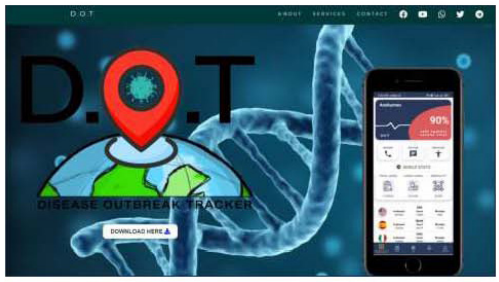
Moving Wallas develops platform for tracking people movement

Chennai-based start-up Moving Walls developed a technology platform on the theme of Geofencing that allows identifying the movement of people at scale and provides inputs on ensuring movement control nationwide.

Website link:
https://www.movingwalls.com/

N3xverse develops Disease Outbreak Tracker

N3xverse Private Limited, a Bhubaneshwar-based start-up, developed Disease Outbreak Tracker (DOT) which will be the biggest platform for any disease outbreak. Officials can directly chat and know the status around India, can update info based on colour code for on the level of risk zones, directly talk with people having or suspecting the presence of the virus in the body and share news, views, and videos in the app to spread awareness and info on the movement of virus on-field in the app and upload list of people being infected and people under supervision. Civilians can know the status of the virus spread in the dashboard, get news feed and videos directly from officials involved in the operation to check/stop Virus outbreak/spread, info on Risk Zones in different states, know your heroes fighting in the frontline, check the list of infections and deceased and their activities to know if you are safe, Chatbot to know the virus or report for any case and get emergency helpline numbers of different areas for reporting or help.



Website link:
https://www.coronatrackerindia.in/

COVID-19 Patient Tracking and Geofencing Solution with Sensegiz COIN

With the COIN, the start-up Sensegiz Technologies Pvt Ltd., Karnataka creates a large, ultra-low power proprietary mesh network of sensor nodes with connectivity to the cloud via Wi-Fi. Each sensor node communicates with every other tiny sensor node as well as with the cloud. It has analytics and machine learning happening at the edge as well as on the cloud platform. One can also create Geofence to trigger an alert when the patient enters or leaves the designated area. The total time spent can also be monitored in various zones. All the alerts can be sent via SMS and email to the concerned person if a person leaves the quarantine area.



Website link:
https://sensegiz.com/covid-19-social-distancing-solution/

Home Quarantine Geo Tracker App developed by SigniTeq Services

SigniTeq, Bengaluru, is new-age Boutique Company that harnesses the power of blockchain, artificial intelligence, machine learning, analytics, and cloud, to help global companies and established brands reimagine their business by building impactful digital engineering solutions.
SigniTeq Services Private Limited developed a powerful app-based mobile tracker for COVID-19 patients, suspected patients, and citizens who are in-home quarantine isolation. Helps authorities to enforce lockdown, control, and track and trace movements of citizens and suspected patients, define Geofencing limits and contain the spread of the virus.

Website link:
https://signiteq.com/

Iysert Energy develops Portable Self Sustainable Mobile Hospitals

Jaipur-based start-up, Iysert Energy Research Pvt Ltd, is ready to transform the waste containers into world-class portable hospitals units on wheels/stationary with the latest equipment, beds, and basic amenity services. The hospitals will run by self-powered solar and portable Air-o-water (Air to water) system for filter and purified water. Each mobile unit can be embedded or parked at a place to develop 1000-beds hospitals. Each mobile unit has containers with wheel embedded and interiors will have portable beds, portable ICU setup embedded, and private room for the patient, kitchen, and bathroom. The mobile units can be developed into a dormitory for 10 beds or can be expanded into others as per requirements. The mobile hospitals will be connected via Mobile Application (JEVEN), The patient or hospitals can book the nearest mobile hospital via mobile application.



Website link:
http://iysertenergy.com/

Peer Robotics develops robots for automated delivery of food, medicines, disposal of waste

The current healthcare system is facing an acute shortage of doctors and nurses (caregivers). Delivery of food, medicines, and disposal of waste are the tasks that can easily be automated, allowing the caregivers focus on more essential and life-threatening tasks.



Peer Robotics, a Delhi-based start-up, has developed robots that are capable of working along with nurses and doctors to provide the much needed supplies to the patients while limiting the contamination among them and reducing their physical workload.

Website link:
https://peerrobotics.in/

Briskworld Ventures develops smart distribution system

An essential commodity distribution solution was developed by Briskworld Ventures Pvt Ltd, New Delhi. They propose to use large trucks as mobile distribution points for essential commodities, medical supplies based on the voting wards. ach ward population data would be pulled based on the UID/Voter ID/mobile number that are qualified for PDS or general scheme for essential commodity distribution and sales. The sales SKUs are standardized based on a week's supply of essential commodity and certain add on products like hand sanitizer, mask, or food products, with a limit per family weekly to ration commodities. Customers can book via the WebApp or WhatsApp or Call and the linked ward can either deliver the order to them or can be picked up from the truck Geofenced to the ward.

Website link:
https://www.glasswing.in/

Foliyoo Technologies develops essential commodity distribution solution

Odisha-based start-up, Foliyoo Technologies Pvt Ltd, is a transport aggregation company. It looks into the easiest way load booking could be done for commercial vehicles. Load booking

through them will change the domain of existing booking models facilitated by various other aggregators. They use innovative Internet of Things (IoT)-based system. Foliyoo provides online fleet booking. During COVID-19, maintaining social distance is important to stop the virus. Foliyoo will solve the communication between transporter and goods suppliers. It has been validated and deployed in Hong Kong and Malaysia.

Website link:
https://bit.ly/3p1PPeD

STATWIG develops Vaccine Ledger

UNICEF uses their tool to track critical vaccines inventories at national, state and district levels so that they can deliver these vaccines to the children quickly and more efficiently. A Hyderabad-based start-up, STATWIG, uses the same product to track the COVID-19-related critical products to give visibility at state and district levels. It uses SCM tool to manage inventory of critical PPE and other essential medical gear and offers transparency at different levels of the chain (Government, supplier, transporter, and buyer) about managing such items. The start-up developed an open-source tool for UNICEF (funded by UNICEF Innovation Fund) and GAVI, which is used for tracking critical vaccines from production to inventory management at national/state/district levels so that it can be delivered quickly and efficiently in the field.



Website link:
https://statwig.com/

Sarjan Innovations develops Swachhta Picker to pick up solid and semi-solid waste from a distance

To prevent the spread of COVID-19, Gujarat-based Sarjan Innovations Pvt Ltd developed Swachhta Picker which is manually-operated handheld equipment that helps to pick up all kinds of solid and semi-solid waste from a distance without much need to bend or physically touch the waste. It, therefore, eliminates the need for direct contact with waste and hence minimizes many kinds of health and safety risks for the sanitation workers. In context to COVID-19, it has a significant role to protect the sanitation workers from the transmission of the virus through contaminated waste. The use of Swachhta picker will add another barrier to such transmission by physical distancing of waste from sanitation workers and would protect them from getting infected. Moreover, the equipment is not just for COVID-19, it would be used for the long term to save the workers from a lot of other health and safety risks that they face because of their job.



Website link:
https://sarjanindustries.com/

Amour Lab develops web application to help people and suggest them to consult a doctor

Odisha-based start-up Amour Lab Private Limited developed a web application which will help people and suggest them to consult a doctor as per the symptoms they shows, keeping WHO's guidelines in mind. This application has been developed to help the public as well as doctors from rushing into check-up without symptoms and giving a fair chance to the actual patients. This web application is driven by AI platforms for helping doctors, common people as a whole. A set of questions will be asked and in the end, it will show what are the chances of you having COVID-19. If there are chances of this virus within you then it will show you suggestions of doctors near you for check-up; otherwise you are good to go. By this, there will be comparatively less rush in the hospitals for a check-up by allowing the affected patients to be treated sooner.

Website link:
http://amourlab.github.io/
https://covid19odisha.org/

Heamac Healthcare develops a tracking wristband called CoWatch

The Hyderabad-based start-up, Heamac Healthcare Pvt Ltd developed a tracking wristband called CoWatch. The key features of the device are prevention, monitoring, tracking, and alerting. It detects the suspects with the symptoms of COVID-19 by monitoring their vital parameters. It also helps the doctors and healthcare workers to monitor the health conditions of the quarantined patients and also of the self-quarantined people to take immediate action. The mobile application also enables the user to track and monitor the vitals of multiple persons enabling them to track the condition of their kids and family. It acts as a first stage of screening for the doctors and makes sure that the healthcare workers working for the safety of other people are safe. It also makes sure that there is no emergency or loss of life due to lack of monitoring. It alerts the user with the nearby hotspots areas and corona patients. It motivates people to follow social distancing by giving individual reward points for maintaining social distancing and also alerts them if they are close to others.



Website link:
http://www.heamac.com/

OPC develops accuTRAK

Kerala-based start-up, HW Design Labs OPC Pvt Ltd developed a solution for 'Movement Tracking' using the most advanced technology currently used in developed countries. Compared to existing technologies using Bluetooth, GPS, Wi-Fi, etc., the proposed solution is more effective. These are futuristic and to be highly valued from import substitution points of view.



Ministry of Health strongly recommends for Social Distancing of at least 1 meter or more, hence the solution to track the movement needs to be with an accuracy of minimum 1 m or better. The proposed solution is an accurate indoor positioning system with centimetre-level accuracy.

Website link:
http://hwdesignlabs.com/

Tinkerbee Innovations develops Trackbee



Tinkerbee Innovations Private Limited has developed compact trackers to monitor both people and assets in near real-time. These trackers are body-worn/attachable and have temperature monitors on them. The RF technology used is LoRaWAN. This enables city-wide coverage and 200-m accuracy. This battery-powered tracker can last for over 1 year. This enables keeping track of people, their location, and temperature remotely and requiring little or no configuration on the client-side.

Website link:
https://tinkerbee.in/

Ayu Devices develops Digital Stethoscope for COVID-19



Maharashtra-based start-up, Ayu Devices is a technology-based healthcare company, spun out of BETiC, IIT Bombay. AyuSynk's unique stethoscope design allows healthcare workers to perform auscultation while being protected in an isolation environment and can be used with protective covers in the ED to reduce contamination when pre-screening admissions.

AyuSynk can be used directly using earbuds or headphones via Bluetooth within the isolation room or to a consultant outside the room or send sounds via email or instant messaging. The company has sold 1,000 units that have been deployed in many hospitals.

Website link:
https://www.ayudevices.store/

Blackfrog Technologies develops portable precision-refrigeration system for transportation

Maharashtra-based start-up, Blackfrog Technologies Pvt Ltd developed a portable precision-refrigeration system for transport of blood, serums, vaccines, etc. This technology has now been leveraged for transport of COVID-19 samples. A safe and controlled platform for the transport of nasal/throat swabs from collection centres/hospitals to the certified testing centres has been developed for improving accuracy in testing and minimizing false negatives (arising from thermal degradation of viral specimens).

Website link:
https://bit.ly/2Nd2NII

Candiphi Healthcare develops Candiphi m-health screening and telemedicine platform

Candiphi Healthcare, a Bengaluru-based healthcare technology company, has developed m-health screening platform for noncommunicable diseases, which is perfect for tackling the COVID-19 crisis. Screening tests are conducted with the help of a Clinic-In-A-Bag (CIAB)

product integrated with the Candiphi software platform. They do a wide variety of tests; the tests applicable for COVID-19 are the body temperature, SpO2 (oxygen level), cardiology, and lung function tests.



The body temperature tests are conducted with an infra-red thermometer; SpO2 with a finger cuff device; lung function with a Bluetooth peak flow device; and ECG, auscultation, and cardiac function with a handheld, wireless, Bluetooth 3-lead device.

Website link:
https://candiphi.com/

Turtle Shell Technologies develops MEWS-based alert mechanism – Dozee

Dozee is a CE-Marked, contact-free health monitor with clinical-grade accuracy with remote access and multiparameter early warning score (MEWS)-based alert mechanism. The system continuously monitors a person's heart rate and respiration rate with the help of the system placed under the mattress, converting any bed into a step-down ICU without any cuffs or leads. It also connects to other Bluetooth-based peripherals like SPO2 and BP Monitor to provide access to more vitals remotely. In the COVID-19 scenario, Dozee is playing a crucial part in continuous and proactive monitoring of asymptomatic and mildly symptomatic patients in isolation wards and quarantine. It is also helping in monitoring at-risk patients at home and enabling doctors to continuously monitor their health. AI-based alerts are helping medical fraternity take timely actions. This has already proven life-saving in more than 40 cases, helping flag cases of pneumonia, tuberculosis, and heart failure early.

Website link:
https://bit.ly/3it4ZHy

Infrared Thermometer developed by Fivido Technologies

Delhi-based start-up Fivido Technologies Pvt Ltd developed infrared thermometers which are needed to check a person's body temperature without any contact with the person in less than 1 second. Currently, IR thermometers are exhausted in the worldwide market due to heavy demand and limited supply. The start-up is looking to manufacture this thermometer in-house in India.

Website link:
http://fivido.com/

Thermal Energy Service Solutions developed diagnostics cold chain solution

Thermal Energy Service Solutions Pvt Ltd has developed an ESSOLs diagnostics cold chain solution that is reusable and maintains the temperature in the desired range for more than 10 hours with multiple openings. It shall help in the transportation of COVID-19 samples from the site of collection to the labs in 2-8 Degree Celsius.

Website link:
https://www.tessol.in/

The Flow Frequency Detector developed by Thori India (OPC)

Thori India (OPC) Pvt Ltd, a start-up company, has developed the Flow Frequency Detector that intends to measure flow frequency and detect the respiration capacity of individuals. The

technology intends to measure the breathing power of the body to detect the presence of the virus such as COVID-19.

Website link:
https://www.gasmeter.org.in/#!

A start-up children develops non-contact IR thermometer and portable automatic sanitizer dispenser

Urav Advanced Learning Systems Pvt Ltd, a company in Kochi for children, run by children, with the objective to develop useful products while learning and at the same time has loads of fun together.

The company is manufacturing DIY kits where the person can assemble and learn the working of the product. For example, a non-contact thermometer and portable automatic sanitizer dispenser is necessary for a situation like the pandemic now. At the same time, due to the lockdown, children do not have an opportunity to spend their time in a worthwhile manner. So, the start-up has created a thermometer kit where children will assemble the thermometer using a video tutorial to get the finished working product and learn about electronics at the same time. Similarly, they made a portable automatic sanitizer dispenser kit which comes with USB cable, charger and can be used directly with AC supply or with a power bank to make it portable.





Website link:
https://uralstech.in/

Clinical-grade wireless health screening/monitoring system developed by Mediotek Health Systems

VinCense Digital Health Screening/Monitoring Internet of Medical Things (IoMT) Platform (patent pending) built around India's first clinical-grade wearable with detachable straps that can measure pulse rate, oxygen saturation, respiratory rate, and skin temperature in just 10 seconds and is the perfect triage tool for active surveillance. The technological solution has been developed by a Chennai-based start-up Mediotek Health Systems Pvt Ltd.

VinCense COVID-19 Risk Detection Protocol (VinCRDP) based on Dept. of Public Health, Government of Tamil Nadu, and WHO guidelines enable cost and time-effective triage of at-risk individuals leading to targeted screening for COVID-19 in a data-driven manner. Public health officials and healthcare professionals have access to live actionable data and can make quick decisions to save lives.

Website link:
https://vincense.com/

Pulse Active Stations Network developed largest connected network of manned smart health kiosks

A Hyderabad-based start-up Pulse Active Stations Network has developed the disruptive intervention of smart health kiosks. The intervention is present in 150 locations across 106 cities and has conducted over 450,000 health check-ups. This also happens to be the

largest connected network of manned smart health kiosks in high footfall public spaces in the country.

Website Link:
http://getpulse.in/

UnFound AI helped stopping infodemic of misinformation on social media

COVID-19 has seen a surge in misinformation on social media. Right from fake news related to the treatment/cure of the disease to various conspiracy theories are impacting the social and economic wellbeing of unsuspecting people. This misinformation surge needs to be fought with an equally scalable, robust, and fast solution.

UnFound AI provides that capability using artificial intelligence, natural language processing, and machine learning. The product is live and used by journalists already.

Website link:
https://unfound.ai/

Addverb Technologies develops ultraviolet disinfectant Robot

Noida-based start-up, Addverb Technologies Pvt Ltd has developed a disinfectant Robot. The product is a combination of UV light technology on a mobile robot with intensity meter to disinfect large areas so that humans are not near the light or virus. The residence time can be controlled based on the nature of the surface. It can be much more effective in disinfecting large areas.



The start-up has used the best battery technology which enables cleaning/disinfection of several rooms before it needs to be recharged. Moreover, they have used fast charge technology so that the Robots can be in the business of cleaning again after 30 minutes of break. The Robot has been deployed in a quarantine facility in Noida.

Website link:
https://addverb.com/

Weinnovate Biosolutions develops colloidal silver solution disinfectant to fight COVID-19 pandemic

Weinnovate Biosolutions, a Pune-based start-up, has come up with a non-alcoholic, aqueous-based colloidal Silver solution for disinfecting hands and environmental surfaces. Colloidal Silver is a potent antiviral and has shown its efficacy against coronavirus. In the current scenario where the virus spreads through surfaces (fomites), their solution, free from hazardous chemicals and having no risk of flammability compared to alcohol-based disinfectants, is the need of the hour.

Website link:
http://weinnovatebiosolutions.com/

Mayura Analytical LLP develops Ozone sanitization system

Bengaluru-based start-up Mayura Analytical LLP developed an Ozone sanitization system which works on surfaces, water, and air. Ozone is known to kill 99.7% of all microbes including viruses. Ozone

gas has been proven to kill the SARS coronavirus, and since the structure of the new 2019-nCoV coronavirus is almost identical to that of the SARS coronavirus, it is relatively safe to say that it will also work on the new coronavirus. This could be a cost-effective, large-scale sanitizing process for industries, homes, and public spaces with multiple applications for surfaces, indoor-air, and even water. This is also a Green technology as it doesn't need anything except electricity to run with no residue generated in the process.



Website link:
http://mayuraanalytical.com/

Leaf Box Technologies proposes to utilize UVC in mops and UVC beamers for surface disinfection

Leaf Box Technologies Pvt Ltd, a Bengaluru-based start-up, proposes to utilize UVC specifically in mops and UVC beamers (remote-controlled devices) for surface disinfection, in devices to disinfect portable equipment like mobile phones, laptops, gloves, etc., and in air purifiers for air disinfection. Such products are easy to use, extremely effective in addressing the current pandemic, and most importantly, use far lesser time to implement/disinfect. The start-up has developed three products: UV-C Sterilizer box, UV-C Mop, and UV-C purifier.

Website link:
http://airleafbox.com/

Cherries Engineering and Innovation India develops Jalodbust for dislodging, liquefying and removing faecal sludge

Bengaluru-based start-up, Cherries Engineering and Innovation India developed Jalodbust, an indigenous invented system for dislodging, liquefying and removing faecal sludge from leach pits, septic tanks and manholes replacing human handling.

Coronavirus is suspected to survive in faecal waste for a long time. It especially creates problems because it gets mixed up and the sanitation workers come in contact with faecal waste during manual scavenging. A system for replacing manual scavenging, which holds a big threat from the suspected infection in the faecal waste, is extremely important. The field validation for the product is complete.



Website link:
https://www.startupindia.gov.in/content/sih/en/profile.Startup.5de61fd7e4b0d785f84250e6.html

Rite Water Solutions develops Encee Chlor Disinfectant Generator

Encee Chlor is an onsite disinfectant generator which generates hypochlorite solution from common salt by the process of electrolysis. The innovative solution has been developed by Rice Water Solutions Pvt Ltd. The only raw material needed is common edible salt and water and it produces a 0.7-0.8% hypochlorite solution which is a very strong sanitizer. WHO and UNICEF recommend 0.5% hypochlorite solution for cleaning of surfaces, hospital equipment, linen, etc. and 0.05% for hand wash and general disinfection for protection against coronavirus. With this generator, anybody can produce disinfectant locally and ensure complete sanitation against COVID-19.

Website link:
https://ritewater.in/

Development of prefabricated modular rooms based on HYG Technology by Kadouri Instructional Systems

Upon touching of surfaces by COVID infected patients, the SARS-CoV-2 virus stays on the surfaces for days/hours. It is, therefore, necessary to have anti-microbial surfaces that can help in killing the virus before it latches on to a healthy host.

Kadouri Instructional Systems Ltd, from Tel Aviv, Israel, developed HYG rooms which are prefabricated isolation rooms, measuring 3m×3m×2.4m, and can be deployed at a rapid pace. These are effective not only against the SARS-CoV-2 virus but other Coronavirus also.

Website link:
https://www.hygrooms.com/Store

Ace Bio Healthcare develops stable and novel form of Patholyte



Ace Bio Healthcare, a Tamil Nadu based-start-up, developed stable and novel form of Patholyte for large area disinfection. Patholyte is a non-chemical activated solution and is an oxidant solution with chemical structure HOCl (Hypochlorous acid) which is a free chlorine molecule. Patholyte is the dominant-free chlorine species in chlorine solutions that is slightly acidic to neutral pH (pH 5 to 6.5). Patholyte is a much more powerful oxidant than sodium hypochlorite (or chlorine bleach) and hence it is a viable alternative to harmful chemicals that are being currently used as a disinfectant for sanitization.

Website link:
http://acerenewtech.com/

BNG Spray Solutions develops fog cannon with swirl airblast



BNG Spray Solutions Pvt Ltd, a Karnataka-based start-up, proposes to use its energy-efficient mist cannon for disinfecting public places using liquid disinfectant solutions. The mist cannons are designed for spraying high volumes of disinfectant solution (2-8 m3/hour) over large areas with a throw range of 30-100m (the current prototype has a throw of 30m). The mist cannon is mounted on a trolley that can be towed around in a tanker and infected public areas such as malls, bus stands, airports, railway stations, etc. and can be sprayed with the disinfectant in the form of fine mist. The mist cannon also use patent-pending dual-swirl, dual-shear atomization technology that helps break down the droplets into 4 times small diameters compared to existing solutions. This helps in the more uniform application of the disinfectant.

Website link:
http://bngspraysolutions.com/bngs-first-patent-pending-energy-efficient-fog-cannon/

Jivanam Innovatives develops disinfectant for large area sanitization and sterilization

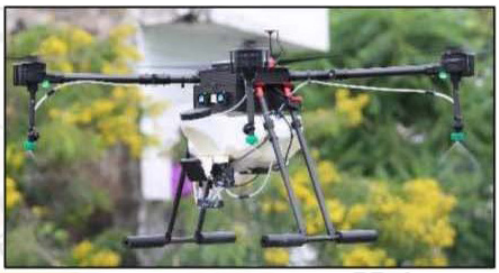
Due to the current COVID-19 situation across the country, there is a high demand for personal care products. Due to a shortage of its supply with no availability, their current market rates are also high. With this product, everyone can generate many disinfector liquids at their homes,

offices as well as hospitals. Ingredients required for making these are also easily available. The technological solution has been developed by a Pune-based start-up, Jivanam Innovatives Pvt Ltd.

It can produce Sodium Hypochlorite which can be sprayed to any place, larger surfaces and various surfaces. This product will just generate a disinfector kind of liquid with a period of 10-20 minutes. As the product is made using MMO anode it can last for 3-5 years.

Website link:
http://jivanam.net/

Marut Dronetech designs and deployed drones for disinfection



Marut Dronetech Private Limited, a Hyderabad-based start-up, has designed and deployed customized drones to undertake anti-mosquito operations. It has been working with Greater Hyderabad Municipal Corporation (GHMC) for antilarval spraying in lakes around Hyderabad for cleaner lakes and positive health outcomes. Further, these drones can be effectively used for spraying disinfectants in public spaces like airports, SEZs, warehouses, parks, railway stations, etc. to disinfect them and stop the spread of the virus. These drones can carry up to 10 litres of disinfectant. Operated manually, they can cover about 20 km and spray 200 litres a day.
The start-up has been deployed in the districts of Sangareddy, Kamareddy, Warangal, Karimnagar, Naraynpet, and several border districts of the state of Telangana.

Website link:
http://marutdrones.com/

Udyamat Ma Viramasva develops Mekvahan Mobile Application as the car-care plan

Udyamat Ma Viramasva Pvt Ltd, New Delhi introduced the car-care plan for the people living in the corona affected areas or cities. Through their Mekvahan car-care plan, the user gets its car sanitized from the inside and outside with deep cleaning.



Mekvahan Mobile Application offers this solution at the doorstep of the customer at a very affordable rate. Cleaning removes organic matter, salts, and visible soils, all of which interfere with microbial inactivation. Mekvahan provides the car-care card to the cab drivers so that they can showcase their car cleanliness to their passengers. The car sanitizing kit for the customer contains a hand sanitizer, wet wipes, and a mask in the glove box.

Website link:
https://mekvahan.com/

OMG Innovtions LLP develops potent anti-microbial and anti-viral spray system

OMG Innovtions LLP, a Delhi-based start-up, developed WHIFF Bio Spray, a unique patented technology that has potent anti-microbial and anti-viral properties. This property could be used to eliminate and neutralize disease-causing bio-agents in the air quickly, safely, and effectively.

Whiff Bio Spray can prevent this spread through the air - both outdoor as well as indoor. It uses the QLEN model (Quick – Localization - Elimination - and Neutralization model) to combat bio-agents.



Outdoors: Sprayed outdoors through low flying drones to neutralize the spread of the pathogens. This is done in small circumference concentric circles to cover all areas under consideration and create an overlap, so no area is left out.
Indoors: The same spray in small bottles can be provided to the different households to clean up any infection and break the chakra of infection. This will impact small social units like colonies and families.

Website link:
https://godsownstore.com/our-products/

Natural enzyme-based disinfectant cleaner developed by Praanapoorna Collective



Praanapoorna Collective LLP, a Karnataka-based start-up, has developed a natural disinfectant effective against bacteria and fungi. The company has proven lab test with a swab test against E. coli bacteria. The company can start local production of disinfectants with citrus peels available from juice shops to replace toxic and expensive chemical disinfectants.

Website link:
https://praanapoorna.com/

Swiss Newater India develops chemical free, eco-friendly surface disinfectant

Swiss Newater India Private Limited, a Maharashtra-based start-up, has developed an innovative unique eco-friendly disinfectant solution.



Machines have been pre-programmed to deliver four basic products, which can be enhanced as per the customer's requirement and the same can be used for a range of purposes for surface cleaning and disinfecting locations including light disinfection/spray used for room floor surfaces, glass, walls and table-top cleaning and slightly degreasing/spray, disinfection and degreasing/spray used on slabs of pantries and kitchens and heavier disinfection/spray used for washrooms/toilets, etc.

Rigorous chemical and microbiological testing of all the four products has been done from an authorized laboratory in India. All four products are tested against several bacteria and fungus such as E. coli, Candida albicans, etc. All the products are 99.99% effective against bacteria and fungus.

Website link:
http://www.swiss-newater.com/

Ridge Environment Consultants develops Aireltech Ridge Ozone Automatic Disinfection & Sterilization Machine

Ridge Environment Consultants, a Himachal Pradesh-based start-up developed Aireltch Ridge Ozone technology that uses ozone gas for sterilization and disinfection. Ozone, which is a very strong oxidizing agent, is an extremely fast-acting disinfectant/sterilizer.

Ozone being a strong oxidizing and sterilizing agent to kill pathogens in a very effective way can be useful for indoor disinfection/sterilization in following applications:

- Sterilization hospital operation theatres, wards, etc.;
- Sterilization of cars, buses, and train coaches;
- Sterilization of medical equipment, cold storages, food packaging places, etc.; and
- Sterilization of indoor officers, houses, community, and public places, etc.

Website link:
http://theridgesolutions.com/

Development of a Novel Peptide Therapy for COVID-19 at IIT Delhi startup

This project, being carried out at DBT Centre of Excellence for Biopharmaceutical Technology, IIT Delhi, is utilizing bioinformatics tools to design a novel peptide for blocking coronavirus. They are being supported in their endeavour by Kisankraft Limited. The IIT Delhi-based startup Growdea Technologies Pvt. Ltd is founded by Dr Avinash Mishra at IIT Delhi.
Contact info: sapna.poti@gov.in

IIT Madras start-ups' efforts to develop 'Portable Hospital Unit' funded by Wells Fargo

With a contagious disease such as COVID-19, it is essential to have smart health infrastructure to screen, contain and treat people. Unlike urban areas, rural areas do not have plenty of existing infrastructure that can be converted to hospitals. There it is difficult to construct buildings from scratch as the requirement is immediate.

Wells Fargo, an American multinational financial services company, is providing funding support to an IIT Madras-incubated start-up called Modulus Housing to tackle this problem. The startup has developed a portable hospital unit that can be installed anywhere within two hours by four people.

Called 'MediCAB,' it is a decentralised approach to detect, screen, identify, isolate and treat COVID-19 patients in their local communities through these portable microstructures. It is foldable and is composed of four zones – a doctor's room, an isolation room, a medical room/ward and a twin-bed ICU, maintained at negative pressure.

The major advantage of decentralised micro infrastructures is that these can be used across the nation. These microstructures can be shifted to rural India. Hence, this can be one-shot two-kill scenarios and can be put to good use even after COVID-19 is eliminated from the country.

Contact info: sapna.poti@gov.in

Infineon Technologies provided funding support to IIT Madras start-up to develop power backup system for ventilators

COVID-19 is an infectious disease caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). While the majority of cases result in mild symptoms, some progress to acute respiratory distress syndrome, requiring mechanical ventilation. For such patients, ventilators have become the difference between life and death.

Reliable power backup for ventilators and Isolation homes in B & C towns, where power availability is not reliable or at the remote locations which are off-grid has become essential.

This will save substantially the need for diesel generators for powering such systems in the rural areas. Towards this, Infineon Technologies AG, a German semiconductor manufacturer, is providing support to Cygni Energy, an IIT Madras incubated start-up, to develop a power backup system for the ventilators. The power backup for ventilators will be targeted towards off-grid and weak-grid areas.

Cygni Energy Pvt. Ltd. is an IIT Madras incubated start-up, established about five years ago, working in the domain of efficient DC solar power backup. Cygni has numerous inventions in the area of solar-DC and is a pioneer in this field.

Contact info: sapna.poti@gov.in

Asian Paints supported MyLab Discovery Solutions to stock emergency supply of COVID-19 testing kit – PathoDetect

There has been a steady increase in testing capacity for COVID-19 over the last few months in India. Currently, over one lakh tests are being performed every day. To help with this increased demand for testing India has been importing testing kits from China, Germany, South Korea and three other countries. However, these imported kits were not enough for a populous country like India. Thus, ICMR has been looking at indigenous testing kits to prepare itself to 25 conduct mass testing and create an emergency supply bank to meet this requirement in the coming weeks.

MyLab Discovery Solutions, incubated at NCL Venture Center, has developed a COVID-19 testing kit, named PathoDetect, which has received approval from CDSCO in a record 6 weeks' time. PathoDetect offers an in vitro diagnostic real-time PCR assay for qualitative detection of the 2019-novel Coronavirus RNA in respiratory specimens and sera. The kit offers universal detection of SARS-like coronaviruses and specific detection of 2019-nCOV. Each indigenously produced PathoDetect kit can test 100 patients at 1/4th the cost of an existing kit, thus significantly reducing the financial burden on the government. Moreover, Mylab's PathoDetect kit is very simple to use and can significantly expedite the testing process, as it provides results in just 3 hours, compared to the 7+ hours required for existing kits in the market.

Asian Paints Limited has extended financial support to Mylab Discovery Solutions to manufacture and keep available an emergency stock of kits required to help in mass testing. The fund will help MyLab take the necessary inventory risks, plan supplies in advance and meet the growing needs. Currently, MyLab has an existing manufacturing capacity of 25,000 tests per day, which can be enhanced to 40,000 tests per day by further automation.

Contact info: sapna.poti@gov.in

IIT Delhi startup developed PPE kits customised for healthcare professionals

The Indian Institute of Technology Delhi (IITD) joined hands with PNB Housing Finance Limited (PNBHFL) towards its fight against COVID-19 by developing personal protective equipment (PPE) for healthcare professionals.

IIT Delhi and PNBHFL have signed a Memorandum of Understanding under which IIT Delhi start-up ETEX incubated at IITD will be working to develop and deliver smart textile solutions for healthcare. The team has a strong expertise in textile engineering and has technical support from researchers and professionals from interdisciplinary backgrounds including electronics,

medical, material and design. The team is committed to innovate advanced technologies related to protection (against pollution and COVID-19), pain, health monitoring and posture. PNBHFL, a leader in the construction finance, will be contributing corporate social responsibility (CSR) funds towards this project.



The COVID-19 pandemic has triggered an unprecedented lockdown in many geographies globally. All public and private stakeholders must contribute wholeheartedly in stopping its spread. As part of its societal responsibilities, PNBHFL has joined hands with IIT Delhi in ensuring the contribution to the nation's effort in flattening the COVID-19 curve. Through this partnership, PNBHFL aims to play a meaningful role in safeguarding the well-being of corona warriors, who are risking their lives by putting service before self, day after day. Prof. Bipin Kumar, Department of Textile Technology is spearheading this project.

Contact info: sapna.poti@gov.in

Mylo Solution develops ultraviolet disinfection systems against COVID-19

Mylo Solution Pvt Ltd, a Maharashtra-based start-up, has developed a solution that emits a powerful dose of 256.7 nm UVC light to rapidly inactivate pathogens on any surface. Current manual cleaning only reduces microbial contamination by 36%. The solution provides a 99% disinfection in less than 8 minutes. Additionally, they have created a solution that is comparable to solutions found internationally at less than 1/3rd the cost.



Website link:
https://www.atterolabs.com/

OxyGarden develops FOREST, India's first Air Sanitizer that purifies and humidifies indoor air naturally

Haryana-based start-up, OxyGarden has developed FOREST- India's first Air Sanitizer which purifies and humidifies indoor air naturally. The patent-pending innovation does not only solve the problem of ever-increasing levels of indoor air pollution but also improves air quality by purifying indoor air and pumping in fresh oxygen with natural humidification. They have developed a technology that induces controlled photosynthesis in plants with the help of automated airflows and artificial light sources.



FOREST controls the transpiration in plants that are grown in an aerated medium consisting of activated charcoal, which makes it lighter than soil. The polluted indoor air is absorbed through the plant roots, after which it passes through a carbon filter.

Website link:
https://oxygarden.com/

Viroblitz Solutions develops Viroblitz air steriliser



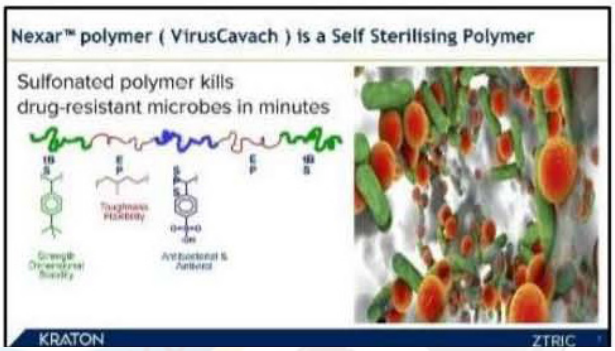
Viroblitz Solutions, a Kerala-based start-up, developed an air steriliser/deodoriser by using Low Energy Cascade Oxidation (LECO) process to sterilize the air. This doesn't need chemicals or HEPA filters or UV for sterilizing the air.

Viroblitz air sterilizer oxidizes any organic molecule; it can not only sterilize but also deodorize the air. It removes the bad odour caused due to Volatile Organic Compounds (VOC). Therefore, "the dream of a germ-free and odour-free hospital/home environment can be made a reality by using this technology".

LECO technology breaks the Carbon-Hydrogen bond of all the microorganisms; the destructive power is irrespective of the type of microorganisms or viruses. Therefore, the technology should also remove the Coronavirus from the air which in turn reduces the infection rate substantially.

Website link:
https://viroblitz.com/buy.html

Ztric India Pvt Ltd develops Nexar polymer for surface sterilization



Maharashtra-based start-up, Ztric India Pvt Ltd has developed Nexar polymer, which is a self-sterilising multi-block polymer. Once it is applied on the surface it has the potential to kill viruses for many days and help prevent community spread of it. It can protect healthcare providers like doctors and nurses from getting infected via surface contact contamination. VirusCavach (Nexar) is a solution that can provide anti-viral coating to surfaces that commonly spread any virus, e.g., hospital equipment to public transport.

Nexar polymer is already registered and has been sold commercially in other applications in the United States, Europe, and other countries. If proven effective and approved, it can be made commercially available in India.

Website link:
https://ztric.com/

Absstem Technologies develops Pressure swing adsorption technology-based Medical oxygen plant



Absstem Technologies LLP, a Delhi-based start-up, has developed a oxygen generator which provides medical-grade oxygen onsite using electricity only. The capacity of the machine varies from 4 to 200 oxygen cylinders (2 to 100 ventilators).

Following are the benefits of using medical oxygen generator in COVID-19:

- It produces oxygen inside the hospital with electricity (reduces the dependency on external factors);
- No manpower is required for the operation of this machine;
- It eliminates the entry of non-hospital staff inside the hospital;
- The machine is capable of producing oxygen for 1 ventilator to 100s of ventilators;
- This machine is installed once and can be installed at any place and this can be a perfect solution.

Website link:
https://absstem.com/

Automated respiratory assist device developed by Biodesign Innovation Labs Private Limited



Delhi-based start-up Biodesign Innovation Labs Private Limited has developed RespirAid which uses simple mechanics. It has already been tried and tested in other fields, for automating manual ventilation. It is safer, reliable and consistent than manual ventilation, low-infrastructure and skill requirement than mechanical ventilation.

Multi-mode operation manual, battery/direct current-powered DC gear motors are the prime driver for the device, whose actuation is controlled by a microcontroller, based on the input from the user, entered through the device's interface.

Website link:
https://biodesigninnovationlabs.com/

Briota develops India's first CDSCO-approved digital handheld Spirometer Kit

Briota IVS, a Pune-based start-up, has developed India's first CDSCO-approved digital handheld Spirometer Kit with mobile software for asthma and COPD patients. With the current COVID-19 crisis they are redesigning Spirometer that can be used in a portable ventilator.

Briota's CDSCO-certified Spirometer and related mobile app and software can be quickly redesigned into a low-cost portable ventilator system which will help the medical professional to first measure COVID-19 patient's lung capacity and then provide required ventilation support as needed. They can get the working prototype ready within a week and then with the help of companies like Bajaj Electricals manufacture 100s of ventilators per day.

Website link:
http://www.briota.co/

Briota Technologies develops Critical care Home Monitoring kit for healthy lungs



Pune-based start-up, Briota Technologies Private Limited has developed SpiroPRO - Critical care Home Monitoring kit for healthy lungs. SpiroPRO is a home monitoring kit built to monitor daily lung health conditions of high-risk patients for

actively verifying fever, other respiratory symptoms, and lung capacity which can lead to an increase in susceptibility towards the COVID-19 virus.

SpiroPRO kit consists of a handheld spirometer, connected to a user-friendly mobile app named "NEHA" for conducting daily lung exercise and spirometry test. The kit also consists of a digital thermometer and pulse oximeter for daily monitoring symptoms of COVID-19. Their dashboard made for health authority consists of a heatmap for quarantined and under observation COVID-19 patients. It also connects with the NEHA app and can review the daily progress of these patients for further follow-up.

Website link:
http://www.briota.co/

Sukoon Solutions develops devices for improving Critical Care Response

Sukoon Solutions Private Limited, a Pune-based start-up, has developed devices for improving Critical Care Response such as light weight folding stretcher, rapidly deplorable weather-resistant, portable emergency rooms, Advance First Aid Kits for rescue, resuscitation, and transport, Manual Ventilation Kit with training videos for community-level volunteers, Ambulance Kit for converting any transport vehicle into a Working Ambulance, Training Videos to prepare masks, working barrier suites, and sanitation utilities, Dead Body Bags and Boxes: Cooling and Non-Cooling systems and videos, Portable, high purity Oxygen Concentration Devices that run with Solar Energy, and Village-level critical care corner/cabin with complete training package (under process).

Website link:
https://www.sukoonsolutions.com/

Carenation remote care delivery platform developed by Teslon Technologies

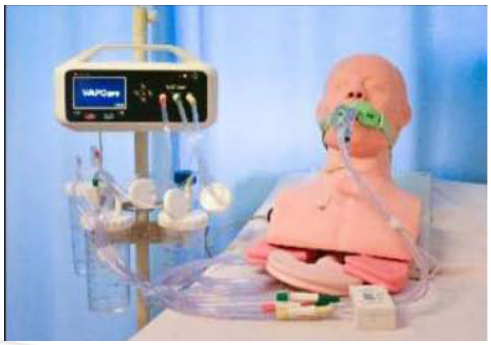
Carenation is an advanced remote healthcare delivery platform developed by Teslon Technologies Private Limited. The company offers two products that are portable ICU Monitoring System and Patient App - for those quarantined and with mild symptoms.

The start-up has developed a cart and backpack called Carenation which works as a screening cart and backpack which can provide effective screening options. The company has also developed an app that can be used to track (location), manage, monitor (health), and educate the patient in isolation. The app provides easy access to advice from care co-ordinators and teleconsults to doctors.



Website link:
https://teslon.io/

Innaccel Technologies develops oral hygiene system for ICU patients



Innaccel Technologies Pvt Ltd, a Bengaluru-based start-up, has developed VAPCare, which is an automated secretion management and oral hygiene system for ICU patients on mechanical ventilation. It provides a completely closed system for intelligent and accurate removal of saliva and secretions in a ventilated patient.

VAPCare brings three unique benefits to healthcare systems: (1) Provide effective secretion clearance and oral hygiene management in ventilated patients with limited nursing staff and reduces VAP (Ventilator-associated pneumonia) in these patients; (2) Prevent cross-infection of nurses and healthcare workers from COVID-19 patients thereby increasing caregiver safety; and (3) Free up critical nursing time by automating a frequent and laborious process. VAPCare is a proprietary product with its core technology protected by patents granted globally.

Website link:
https://innaccel.com/

Rayiot Solutions develops baby monitor to track sleep and breathing

Bengaluru-based start-up, Rayiot Solutions Pvt Ltd, has developed a respiration monitor which acts like mini ICU units that can intelligently manage quarantined spaces by tracking respiratory rate (early indicator for SARS or COVID). Using AI, quarantined patients can be categorized on risk and admitted to ICU.



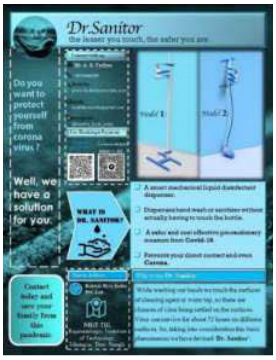
Important Feature: It uses AI algorithm and sensor hardware to track breathing and predict health events (including fever and COVID symptoms).

Where to use: Quarantine facilities. Any space can be converted into a mini ICU space with this product. A central database would track who is getting worse in quarantine and who is getting better. It also enforces quarantine which is the need of the hour.

Why it is important: Non-contact, non-invasive, reusable, affordable mini ICU units with minimal clinic setting. Also, it reduces inflow into hospitals and reduces the burden on healthcare professionals.

Website link:
https://raybaby.us/

Bubble Byte India develops smart mechanical liquid disinfectant dispenser, Dr. Sanitor

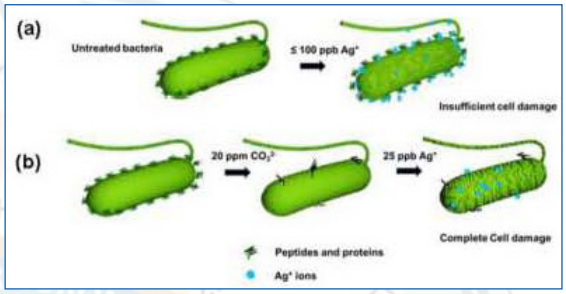


Hands touch many surfaces and can pick up viruses. The virus can survive for about 72 hours on different surfaces. Sanitizing every possible surface is one of the major precautionary measures. What if we can do our daily chores without having to touch anything? The lesser you touch, the safer you are. Even while washing our hands we touch the surfaces of the cleaning agent or water tap, so there are chances of the virus being settled on the surface!

Dr. Sanitor - A smart mechanical liquid disinfectant dispenser, which dispenses fluid without having to touch the bottle has been developed by Maharashtra-based start-up, Bubble Byte India. It uses a pedal mechanism for its operation and is a safer and cost-effective precautionary measure. Dr. Sanitor can be installed at public places with sanitizer bottles at toilets, washbasins, colleges, hospitals, and every place where hand wash is a must. There are two versions of the product: portable and fixed place application.

Website link:
http://bubblebyteindia.com/

Indian Institute of Technology (IIT) Madras scientists develop nasal spray that can disable Coronavirus



Indian Institute of Technology (IIT) Madras had proposed the application of their technology in nasal drop-based deactivation of the COVID-19 virus. They expect a significant decline in the virus infection, especially when the infection has affected the nose and throat. The formulation can also be applied for surface sanitization. They expect the product to be extremely effective for the prevention and treatment of nasal transmission virus infection initiates and progresses through the droplet route and their technology is extremely effective against high virus load in the water medium. This technology has been successfully tested against enteric viruses (such as Rotavirus, Poliovirus, Japanese Encephalitis), bacteria (such as E. Coli, Salmonella, S. Aureus).

Website link:
https://tue.iitm.ac.in/TUE.php

Shapeysquare develops 3-D printed face shields and respirator valves

Shapeysquare, a Mohali-based start-up, is providing 3-D printed face shields and respirator valves. It is an extremely low-cost face shield that uses OHP sheets to provide a barrier to the face of the person from being in contact with affected people. OHP sheets are easily available and they do not need to be disinfected and can be replaced easily.

Website link:
https://www.shapeysquare.com/

Sunfox Technologies develops polycarbonate face shield helmet



Sunfox Technologies Private Limited, a Delhi-based start-up, has developed a polycarbonate face shield helmet. It is one piece, easy to carry, easy to wear, easy to clean, lightweight, and economical protective gear.

Website link:
https://sunfox.in/

Swasti Agro and Bioproducts Pvt Ltd has a patented coating fabric to make mask that can adsorb and kill the virus

Swasti Agro and Bioproducts Pvt Ltd, a Pune-based start-up, has a patented derivative of chitosan that is proposed to be re-purposed for coating on masks. These masks can adsorb

and kill viruses. The derivatives of chitosan are otherwise safe to use and have been deployed in IV injections as well as carriers in the flu vaccine.



The proposal is to make a concentrated solution of the derivative, which is stable at room temperature. This can be diluted (75 X) and used to dip any fabric on which the material will get coated. These can be used as low-cost masks.

Website:
http://www.swastiagro.com/

Tinkrbot Technologies develops face shields using 3D printing

A Trichy-based start-up, Tinkrbot Technologies has developed face shields using 3D printing. It is flexible, light-weight, and simple to suit the comfort of the doctors. Therefore, it provides additional protection to doctors dealing with patients.

Website link:
http://www.tinkrbot.com/

SN-19 face shield developed by Uneako Green Earth

Uneako Green Earth Pvt Ltd, a Delhi-based start-up, has developed SN-19 face shields which can help frontline medical responders taking care of the infected person. This prevents the wearer from touching their face, eyes, mouth, and nose and safeguarding from the transmission of germs or viruses through infected patients.



These face shields are lightweight (40 g) and ideal to wear for a long period. The minimal volumetric weight allows easy transportation of the face mask in bulk. They are adjustable and the person can adjust the face mask as per their face size and shape. Its crystal clear transparent surface gives clear vision. It is easy to clean, reusable, and durable. People can use it easily as they feel no difficulty to bend their head or neck while using this face mask.

Website link:
https://uneako.com/

Urtechklikworld produces protective mask

Urtechklikworld Pvt Ltd produced a protective mask to filter out dust, germs, smoke and pollen. The mask is suitable for children and adults for various treatment environments such as emergency room, operating theatre, etc. It has unique invasive and non-invasive ventilation modes to meet different patients' needs. Other features include inspiration halt, convenient for sucking phlegm, Oxygen mixing technique to adjust oxygen concentration and meet the oxygen therapy need, Alarm and monitoring system which meet the international safety standard, TFT screen, displaying various respiration parameters and waveforms and with a built-in battery and on-vehicle power connector for A/C and D/C power supply.

Website link:
https://uralstech.in/

Jariwala Robotics develops cost-effective face shields for frontline warriors



Realizing the pivotal role of technology in combating the spread of COVID-19 virus, Jariwala Robotics Private Limited has developed face shields which has an extra layer of protection for health workers. It has space to wear a protective N9-5 mask underneath. Unlike other masks, it need not go through rigorous testing to meet the same safety standards and therefore fit for immediate use. It can be easily cleaned for repeated use.

Website link:
https://www.jgrouprobotics.com/

Maternity start-up Mom Made Products develops homemade face masks

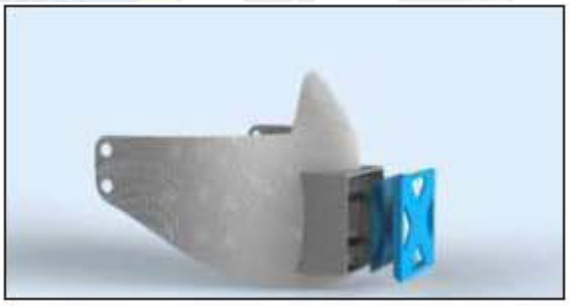


Mom Made Products, a Bengaluru-based start-up specialized in providing maternity related products and solutions, has developed face masks. These home-made cotton face masks are reusable and washable. At the same time, these are manufactured by women SHGs thereby earning them a supplemental income in these tough times.

Website Link:
https://cutt.ly/CjPqzK1

MGH Labs develops filter-based wellness mask

MGH Labs Pvt Ltd, a Chennai-based start-up, has developed filter-based wellness mask that protects a healthy person from an infected person by providing an effective physical barrier from aerosol-based virus contraction. It provides a protective mask for healthcare workers, physicians, and the common public. It effectively filters germs including bacteria, fungus, and dust particles like pollen and others. It acts as a wellness tool by providing preventive health solutions. It provides smart filtration and protection at an affordable price. It has been indigenously manufactured maintaining highly sterile conditions.



Website link:
https://bluspider.in/

Automated integrated hand wash station developed by Viebel Concepts PLC

Viebel Concepts PLC, a Mysuru-based start-up, developed an integrated hand wash liquid and water dispensing station. It is applicable at places of hand wash and washbasins. It comes with a sensor-based tap and an electronic box.

The device could be mounted on any existing washbasins or new washing stations can be manufactured. Operations are sensor based. This suffices hand washing for containment of COVID-19 virus and importantly avoids the spread of the virus through touching of the tap lever or knob by multiple users. It is a non-contact hand washing station with water and hand washing liquid dispersion at the same point at prescribed frequencies.



Website link:
http://www.viableconcepts.in/

Pupilmesh develops low-cost, reusable face shield



The Bengaluru-based start-up, Pupilmesh Pvt Ltd, has developed low-cost face shields. The face shield has got anti-scratch and anti-fogging properties and thus makes it easy and comfortable to use.

Website link:
http://www.pupilmesh.com/

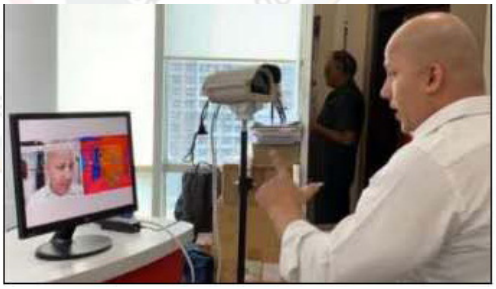
IIT Delhi-based start-up develops AI-based identifier tool

CYRAN AI SOLUTIONS, an IIT Delhi-based start-up, has developed a unique state-of-the-art AI-based personnel identification vision technology that can recognize individuals wearing normal attire or full protective equipment (PPE). While wearing protective equipment the face of the individual is partially or fully covered and normal face recognition technology fails to work under such circumstances. Their technology is capable of recognizing individuals even under full-face cover PPE. It is already successfully deployed in South Korea. The technology can be used for contactless authentication, tracking, attendance, door-control, logging, or any other user-desired task.

The company's solution is secure and 100% on the edge-deployment that ensures user privacy and data security. Their solution is also capable of data fusion with live thermal sensor data.

Website link:
https://www.cyran.in/

AI-based abnormal temperature detection and alert management system developed by Diycam India



Diycam India Pvt Ltd, a Mumbai-based start-up, has developed an AI-based abnormal temperature detection and alert management system developed in India. This system uses a combination of AI and IoT to detect a person with fever. On detection, the system generates alert and update authorities along with the person's photograph.

Website link:
https://www.diycam.com/

Safety and security solutions to fight COVID-19 by Techolution India

The world is struggling with poorly designed doors with unhygienic, inconvenient, unreliable and insecure access control. Because of the pandemic circumstances, fingerprint/

touch-based biometrics are also disabled around the world as it is the major reason for the virus spread.

Telangana-based start-up, Techolution India Pvt Ltd has developed an AI-based contactless/ touch free access control product.

Website link:
https://techolution.com/

Touchless ID develops touch-less biometrics

Touchless ID Pvt Ltd, a Bengaluru-based start-up, develops technology on touch-less biometrics. Touchless ID offers multi-factor authentication from any mobile device with a camera. The product identifies users through a picture of their fingers or face. The technology is deployed in Mexico, Columbia, Brazil, etc. The start-up is seeing a growth in transactions at 5 Million transactions per month and growing 50% quarterly.



Website link:
https://identy.io/

Integrated AI approach by InkVision to track millions of people through their faces

Bengaluru-based start-up, InkVision has developed an AI approach to track millions of people through their faces. The system can also identify emotional or distress state.

InkVision can implement contactless entry for doctors, patients, and other alike. It can also calculate the "interaction" metric between a given set of people and keep a track of who met whom or came in contact with.

Website link:
https://inkers.ai/#technology

Contactless and touchless access on mobile for effective social distancing by Mobiikey Technologies

Mobiikey Technologies Pvt Ltd, a Bengaluru-based start-up has developed Mobiikey's keyless and touchless access on a mobile platform. With its smart Bluetooth controllers it will be providing access to users directly on their smartphones. Any app can be used to provide access with easy-to-integrate SDKs and APIs.



This platform can save millions of lives globally by quickly adapting the change of technologies for contactless access to common access and touchpoints. The major area of impact is lifts where buttons outside and inside are touched by millions of people.

Website link:
https://www.mobiikey.com/

Detection and diagnosis of COVID-19 from Chest X-ray Images

Mumbai-based start-up, Qure.AI Technologies Private Limited has developed an automated Chest X-ray Interpretation platform to detect COVID-19.

qScout is an AI-powered Virtual Care Platform that helps track, manage, and prioritize the testing for COVID-19, facilitating better patient management and improved diagnosis without overburdening existing healthcare infrastructure.

Website link:
https://qure.ai/

RISES Analytics Solutions develops Rises Chronic & Critical Care: TRAP (Treatment Response Assessment & Predictions) AI solution

The Treatment Response Assessment & Predictions (TRAP) powered by 'rises.AI platform' acts as an assistant for medical professionals. It brings in intermediate expertise for timely indicative diagnosis and precision efficiency at a scale to reduce pressure on the system. It facilitates instantaneous indicative diagnosis, in chronic and critical care.

The specialized algorithm analyses radiology imaging data like X Rays, CT Scans and MRIs and builds correlations with patient data including various pathology tests. In case of large volumes, Rises categorizes the studies into normal and abnormal and provides classification per abnormality.

The technology is extended and calibrated to specific viral pneumonia in general and COVID-19 in specific. It tracks patients' progress during subsequent visits to generate automated assessment of patient response and disease progression. The differential analysis provided by Rises TRAP provides a crucial impetus for predictive prognosis management and personalized treatment.

Website link:
https://rises.io/

AI-based Real-time analytics developed by Arcturus Business Solutions

Arcturus Business Solutions, a Noida-based start-up, works on the computer vision-based Artificial Intelligence. It analyses CCTV images and videos for real time detection of the anomaly or violations. The AI algorithm scans each frame of the CCTV image or video for the violations.

The algorithms can at a time work on multiple IP camera feeds from different locations of the city and can alert if a crowd or more than requisite people are assembled together. This technology can help in prevention of crowd gathering during COVID-19 pandemic. Facial recognition using CCTV shall ensure contactless entry for the employees and labour of the industries. Automated real-time alerts on high human body temperature from the images captured by the thermal scanners at the factory/ manufacturing gates will be generated.

Website link:
http://www.arcturusbusiness.com/

A multiplex multi-analyte diagnostic device developed by PathShodh Healthcare

To monitor COVID-19 patients in the ICU and hospitals, PathShodh Healthcare Pvt Ltd has developed hand-held multi-analyte diagnostic device, AnuPath™. It is important to periodically monitor these markers for COVID-19 patients instantly during ICU treatment.



AnuPath™ in ICU setting can yield immediate results for Serum Albumin, Hb and also offer additional parameters like HCT, MCV, MCH, MCHC, PCT, MPV parameters facilitating CBC (complete blood count). Comprehensive IEC certification for safety and EMI/EMC, enabling its use for hospital settings, is also available.

Website link
https://pathshodh.com/

Cardea Biomedical Technologies develops indigenous Tele-ECG Machine



Cardea Biomedical Technologies Pvt Ltd has developed Accurate TeleECG on mobile which can help bring down the number of fatal heart attacks. Heart patients are more prone to COVID-19 severity. During treatment of COVID-19 patients with hydroxychloroquine-azithromycin, it is essential to perform ECG and calculate QTc evaluation; avoidance of non-essential QT-prolonging medications; and identifying and correcting electrolyte imbalances (potassium, magnesium, and calcium).

ATOM ECG allows capture of a medical grade 12 lead ECG over a smartphone with immediate remote expert consultation. It empowers doctors, health workers and nurses to perform treatment of COVID-19 patients with confidence. The recorded ECG can be instantly sent to a cardiologist for their expertise before administering the drugs and also continue a follow-up during the course of the treatment.

Website link:
http://www.cardea-labs.com/

Incredible Devices develops safe and affordable Catheter Reprocessing System



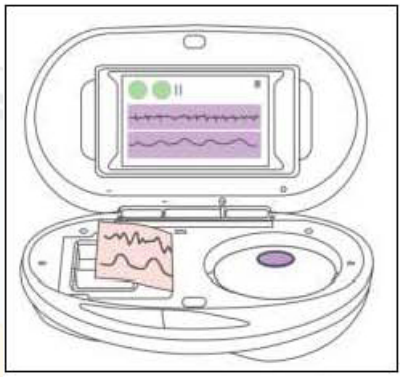
Shortage of medical devices at hospitals may happen due to lack of imports and logistics issues impacting manufacturing supply chain world-wide. Manual reprocessing of medical devices shall lead to higher rate of spread of infections, risking both patients and hospital staff.

Incredible Devices Pvt. Ltd., a Mohali-based start-up, has developed a Catheter Reprocessing System (CRS). It ensures safe reprocessing of catheters and a variety of essential medical devices. CRS is an automated system that safely reprocesses medical devices with minimal human intervention thereby ensuring doctor and patient safety. CRS shall help meet the demand of limited medical devices.

Website link:
http://www.incredibledevices.in/

Sattava Medtech develops Fetal Lite for monitoring foetal heart rate and rhythm

Expecting mothers and babies are vulnerable populations during the COVID-19 pandemic. It is highly risky for mothers to go to hospitals as there is a risk for infection. Only high-risk mothers are being asked to come to hospitals while other mothers are finding midwives/home delivery options. The right monitoring equipment is not available for mothers at home. Conventional monitoring equipment is not designed to be used at home as it needs a skilled operator, infrastructure and is not portable. This can lead to higher number of foetal distress cases not being detected, and maternal and foetal mortality during home births.



Bengaluru-based start-up, Sattava Medtech has developed Fetal Lite. It has been designed for home use by low skill operators, in extreme scenarios. Mothers or family members can easily perform the scans. The Fetal Lite also has a remote monitoring capability, which can allow OB-GYNs (obstetrician-gynaecologist) to remotely receive scan reports and identify high-risk mothers who need to visit the hospital. Even under normal delivery, monitoring is important. Home monitoring will reduce the number of hospital visits.

Website link:
http://sattvamedtech.com/

Jeevtronics develops hand-cranked defibrillator

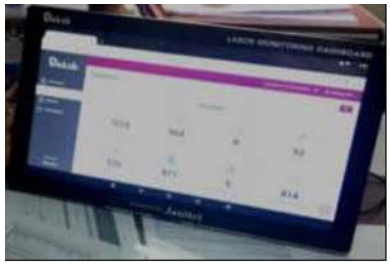


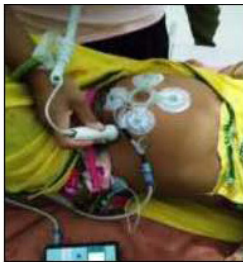
Jeevtronics Pvt. Ltd., a Pune-based start-up, has developed hand-cranked defibrillator for sudden cardiac arrest.

"SanMitra 1000 HCT" Defibrillator is particularly useful for disaster-struck situations (e.g. COVID-19). Sequestration areas inside hospitals for Corona victims need lots of defibrillators. It saves the cost of battery replacement (usually Rs. 12,000 to Rs. 35,000 per year) for the hospitals. It is designed to international IEC standards for medical devices and has been tested and approved by the NABL-accredited lab. It has been tested for 16,000 charge-discharge cycles thereby making it super long-life world-class product.

Website link:
http://www.jeevtronics.com/

Janitri develops advance intrapartum monitoring tool





Janitri Innovations developed a portable smart device that monitors mother and baby to keep them safe through childbirth.

DAKSH is an advance intrapartum monitoring tool for an automated partograph generation. It allows the staff nurse to register and enter vital signs of a pregnant woman. It reminds the staff nurse to monitor the labour vitals, as per the standard WHO intrapartum protocol. It also generates

alerts in case of complications based on an in-built algorithm. The doctor at a remote location can also view the live labour progress and guide the staff nurse.

With DAKSH, following problems can be taken care of:

1. Remote monitoring: The doctors can guide the nurses without visiting them. The progress of labour can be seen by the doctor remotely.
2. Patient Management: Multiple patients will be seen on one screen, audio and critical alerts will be given based on the complications and reminders for the measurement of vitals.
3. Digital Documents: This is a paperless system in which automated partographs are generated and case sheets will be maintained digitally. This means less contact and less exposure. This also gives unlimited cloud storage.

Website link:
https://janitri.in/

Predible Health develops AI-based cloud-hosted software for monitoring severity of COVID-19 patients

Predible Health Pvt. Ltd., a Bengaluru-based start-up, has developed LungIQ which works on applied AI on radiology imaging for monitoring severity of COVID-19 patients.

The software has AI-powered solution that quantifies patterns in lung. Thecomputed tomographic imaging provides quantitative metrics on the % of lungs affected with texture changes across a broad spectrum (from ground glass to consolidation). It is a centralized repository which collects clinical features, radiology imaging and patient outcome data to help public health authorities and hospitals with a data-driven analysis of patient prognostication.

LungIQ has been developed using over 10,000 CTs over the last 1 year with use-case of pulmonary fibrotic diseases. The findings of COVID-19 are very similar to that of other infectious and inflammatory diseases and hence it can be used in the fight against COVID-19 pandemic.

Website link:
http://prediblehealth.com/product/lung/

Windmill Health's foot pedal-operated single-person resuscitation care device for infants

Windmill Health Technologies Private Limited has developed NeoBreathe, a foot pedal-operated infant resuscitator which delivers artificial breaths to new-born babies that fail to breathe. It reduces leakage by half and improves ventilation by 20%.

For COVID-19 it offers following features:

A) Reduced Infection Risk: Increases the physical distance between the patient and the operator (for BMV, operator must be very close); exhaled air can be routed through a filter (with BMV, infected exhaled air is released freely into the surroundings).

B) Superior Ventilation: Shows PIP in real time giving feedback on performance and lung condition; stronger in-built protection against excessive pressures (Pressure-safety); settable PIP. Doctors can preset the specific Peak Insp. Pressure to be delivered with each breath.



C) Greater Comfort: By freeing both hands and employing highly ergonomic foot pedal, NeoBreathe increases the comfort of operation while BMV requires a uncomfortable, hunched-over position - causing fatigue and risk of failure.

Website link:
https://birac.nic.in/webcontent/Birac_Compendium_2020.pdf

Periwinkle develops Telemedicine software to connect doctors with patients



Periwinkle Technologies has developed a cloud-based system, Net4Medix, with apps on Android, iOS and web for patients and their healthcare providers. It is a multispecialty system intended to be used by doctors/caregivers to receive diagnostic data from the patients and provide related consultation even remotely.

Net4Medix enables effective management of positive patients/suspect positive patients of COVID-19 and provides a pre-determined level of remote support to nonCOVID-19 patients who need medical assistance. The device helps in monitoring disease control status and quarantine facility. It supported more than 10,000 patients so far and Machine learning (Artificial Intelligence) models are available for diagnostic assistance and insights.

Website link:
http://www.periwinkletech.com/

Accuster develops portable foldable Mobile Lab and LaBike

Delhi-based start-up Accuster Technologies Pvt. Ltd. has developed Mobile Lab and LaBike which can work not only in the cities but in villages and remote locations.

Mobile Lab is a Compact Portable Clinical Laboratory with an open system in a suitcase having Power Back-Up of 4 hours, extendable to 24 hours. This Lab can work not only in the cities but in villages and remote locations too. The Lab will be very useful in the emergency hospital set ups and disaster relief set ups prepared to deal with COVID-19 emergency. If the Lab is available with the doctors, timely treatment will be available and would save many lives. No patient will be left out without treatment just because of the lack of its diagnostics report. LaBikes may travel from 1 emergency centre to another or nearby hospital where lab facilities are needed the most.





Website link:
https://accuster.com/

ReMeDi NOVATM digital health solutions to fight against Coronavirus

ReMeDi® SCAN-CORONA, jointly developed by e-Zest Solutions Ltd. and Neurosynaptic Communications Pvt. Ltd., is a combination of set of medical devices and software applications. This can be downloaded by any individual, health workers and clinic teleconsultation.



Website link:
https://neurosynaptic.com/

Nemocare's smart wearable device for disease surveillance



Nemocare Wellness Pvt. Ltd. has developed continuous monitoring wearable device that will aid in remote monitoring of vitals along with geolocation and prognosis of affected and quarantined patients. It will also aid in tracking their symptoms and the doctors will be alerted on detection of deterioration.

To understand the disease itself by monitoring positive cases and will help biopharma companies and academic institutes that are developing therapies by helping understand the efficacy and effectiveness on candidates.

Website link:
http://www.nemocare.in/#

Niramai develops technology to control spread of COVID-19



Automated screening of population to look for likely COVID-19 infection by checking for fever plus associated respiratory diseases is extremely important. NIRAMAI Computer Vision technique identifies people with suspected fever. Facial Temperature of all people walking into a facility is measured remotely using a thermal camera.

The Solution is being provided by a joint collaboration between 3 start-ups: NIRAMAI Health Analytix Pvt Ltd, Vitor Health Private Limited and DITI Medical Thermography Pvt Ltd.

Website link:
https://www.niramai.com/

Suraksha full body coverage kit developed by Aarna Biomedical Products



Noida-based start-up, Aarna Biomedical Products, developed Suraksha full body coverage kit. It is a holistic solution for various personnel in vulnerable environments. It comprises of one full face shield, one face mask (as per the requirement), one whole body coverall with fused head coverage, one disposable bag, two shoe covers, two nitrile hand gloves for medical examination and an outer polypack harboring all the above components after UV sanitization.

Website link:
https://www.aarnabiomed.in/

Alpha Corpuscles develops face shield to protect from pathogens



Alpha Corpuscles has developed face shield to protect the face from pathogen-laden droplets. It is made up of clear PET Plastic and protects from infective aerosols. It also provides comfort fit with foam band.

Website link:
https://birac.nic.in/webcontent/Birac_Compendium_2020.pdf

PSA medical oxygen generators developed by Cistron Systems Private Limited

Cistron Systems Private Limited, a Telangana-based start-up, developed PSA oxygen generators. It is a separate source to produce medical oxygen on-site. This reduces the dependency of supply of oxygen for a hospital from vendors and complex cylinder logistics on the last-mile in times of contingency.





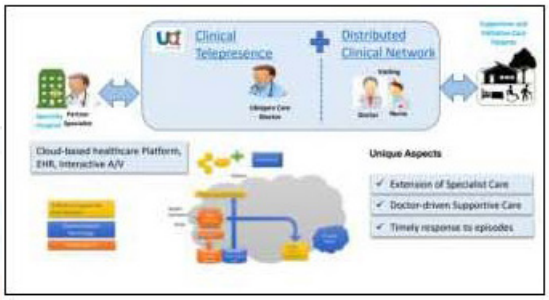
Website link:
https://cistronsystems.com/

Specialist home-based palliative care services developed by Ubiqare Health

Ubiqare Health Pvt. Ltd. has developed palliative care service that enables doctor-driven specialty care to patients at home, reducing hospital visits and stays. This solution seamlessly combines clinical telepresence technology, collaboration framework, and last-mile clinical network of doctors, nurses, therapists and phlebotomists.

COVID-19 patients at home, under care from Ubiqare, will get:

1. Extension of care of Pulmonologist/Physician and interactive clinical telepresence;
2. Regular Monitoring by IoT-enabled medical devices with cloud-based analytics on EHR;
3. Analytics-assisted Triaging and Tele-Consultation by Ubiqare Doctor/Pulmonologist/ Physician; and
4. Sample collection or interventions by the last mile clinical network/healthcare workers.



The patients can be cared for at home during most of the illness trajectory - from the asymptomatic stage to mild symptoms to moderate symptoms stage. This enables the hospital infrastructure to be leveraged for only those in the stage of severe symptoms.

In the asymptomatic stage and mild symptoms stage, the patients' health will be self-monitored and the data uploaded to the cloud for analysis by an algorithm. This analysis will be reviewed by the care doctor. Interventions for collecting lab samples for testing will be supported. Non-compliance to care protocols during quarantine will be detected and alerted. During this stage monitoring of family members will also be covered.

For patients in moderate stage, Ubiqare will support with shifting to an isolation ward in proximity and supported by the care doctor over the telepresence platform.

For those with severe symptoms or patients with epidemiological risks, Ubiqare will support in shifting them to hospital under specialists' care.

Website link:
https://ubiqare.in/

IoT-enabled hand hygiene device developed by MicroGO



At the time when entire the world is fighting against SARS-CoV-2 virus infection, effective hand hygiene is one of the most prominent tools we have to control its spread. Considering its importance, MicroGO, in collaboration with Airport Authority of India, Chennai has developed an SOP for all the arriving passengers at the International terminal, to perform hand hygiene using GOassure before entering in to the main hall or immigration check.

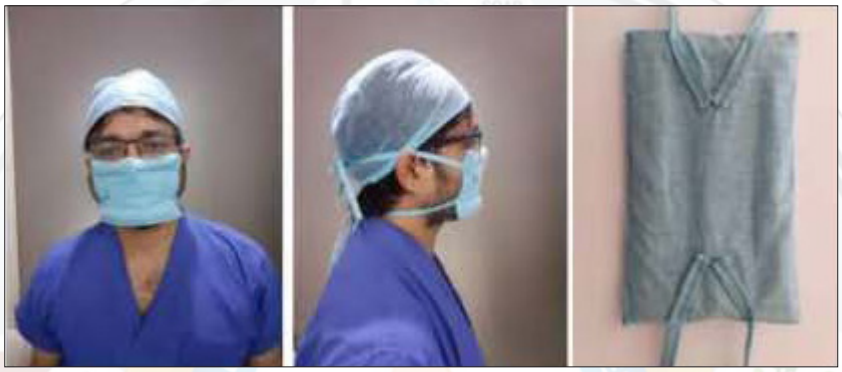
GOassure is IOT-enabled, fully automated hand hygiene device which digitalizes the hand hygiene process. It ensures that the users perform hand hygiene as per the WHO-recommended six step of hand hygiene and notify the variation (or non-compliance) to the authorities/health officer/managers.

Based on experiences gained from Chennai International Airport, many airports viz., Chennai Domestic Airport, Hyderabad, Calicut, Guwahati, Baroda, Pune, Kolkata and Goa have installed GOassure. Apart from airports, GOassure has been installed at various public and private spaces like Taj Group of Hotels, IRCTC kitchens, Farm aggregator Waycool, Banks among others.

Website link:
https://www.microgo.in/products-1

Parisodhana Technologies develops hybrid multiply face mask

Parisodhana Technologies Pvt Ltd has developed a substitute for N95 respirator manufactured using filtration media offering high particulate (>90%) and bacterial filtration efficiency (>99%) while ensuring high breathability, comfort and convenience in tropical conditions through pure hand-weaved cotton contact materials.



Website link:
https://birac.nic.in/webcontent/Birac_Compendium_2020.pdf

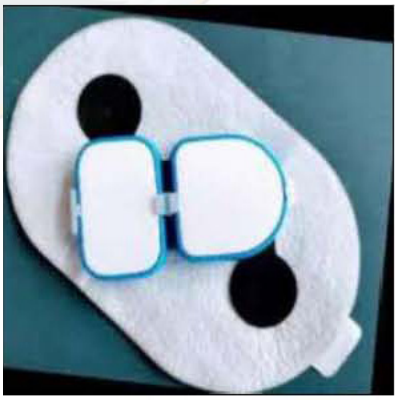
Monitra Healthcare develops products for monitoring the critical rhythm

Monitra Healthcare Pvt Ltd allows remote monitoring of individual's critical parameters – ECG, Respiration Rate. Pulse Rate/Heart Rate, SpO2 & Temperature.

Monitra upBeat® is the most advanced bio-sensing platform which makes remote monitoring comfortable and easy. No wires, slim profile, discreet and can be easily worn on the chest.

upBeat® App: Logs symptoms, receive data from biosensor relays to upBeat® cloud.

upBeat® Cloud: Holds a vast amount of raw data in its native format, used for analysis.



upBeat® Analytics: Analyses data, personalizes alerts and reports allow online access.

These products significantly reduce the risk of exposure to healthcare workers and could reduce the increasing demand of PPE and other logistics. Patients with remote monitoring devices have a probability of survival that is more than double than those without.

Website link:
http://www.monitrahealth.com/

World Help Group provides community aid in times of COVID-19

World Help Group is a non-profit organization which adjoins manufacturers, distributors, wholesaler, retailers, companies or people who can come together in this difficult time of the epidemic to make food that will then be collected and distributed to charitable/welfare homes, volunteer welfare organisation, poor families, and destitute. It is a platform where the needy across the globe are provided with essential requirement which includes food, basic medicines and other requisites. This initiative attempts to make available the essentials so that no death occurs due to hunger, scarcity of medicines and hygiene.

Website Link:
https://worldhelpgroup.org/

Dataorc provides data-based solutions for COVID-19

A Pune-based start-up named Dataorc is working on Data and Product Engineering, Machine Learning, and Artificial Intelligence to provide solutions to a variety of real-life problems. In view of the COVID-19 pandemic, this start-up has developed a Voice Bot which calls the registered number and asks basic questions for the symptoms of COVID-19, to susceptible incoming population. The team has already deployed the Voice Bot for a State Government and making daily calls to 1500 individuals, tracking their status. The product is scalable and can be deployed multiple stakeholders in India and overseas.

Website Link:
https://www.dataorc.in/

5C Network providing radiologists to every needy hospital

5C Network is India's first diagnostics network, which makes radiodiagnosis more accessible, affordable and accurate through technology. This Bengaluru-based start-up is assisting and connecting the 5 stakeholders of radiodiagnosis: The Doctor, Radiologist, Patient, Technologist and Hospital to have a solution for each of their problems, through AI-based screening solutions. It gives every hospital or diagnostic centre, irrespective of its location, on-demand access to India's largest and most reliable network of specialist radiologists.

Website Link:
https://www.5cnetwork.com/#/home

myUpchar removes language barrier in accessing healthcare

myUpchar is a dedicated health platform catering to the need of health information of the Internet users who prefer to consume content in regional Indian languages. myUpchar.com proposed to contribute all the profits during the lockdown period from medicine sales to PM Cares Fund.

Website Link:
https://www.myUpchar.com

Vitor Healthsciences developed Digital Health Assistant

Vitor Healthsciences is a healthcare solutions company with a focus on addressing the market of the "not-yet-sick" customers. The company has developed a Digital Health Assistant, with top-of-the-line technology-enabled equipment, to conduct a quick on-site health-screening and assist the users in comprehension of their health status in a simple and actionable way.

Website Link:
https://www.startupsvscovid.com/startups/recsoNKCG1R3XiPFY
http://vitorhealth.com/

Startup Incubator Huddle launched incubation program

In order to identify need gaps Huddle has launched an exclusive incubation program inviting early-stage and growth-stage ventures offering innovative solution to combat the challenges posed by COVID-19 pandemic. The focus areas of the program will include innovations across the following 3 sectors: Daily wage earners, remote freelancers; Crowd management solution- preventive healthcare measures and Aiding Purchase behaviour- new age, home grown customer brands, product and services easing customer expenditure.



Website link:
https://huddle.work/
https://www.startupsvscovid.com/programs/recTHIQzTUNVUKS81

Expara VirTech Global Accelerator programme launched to solve post-pandemic problems

The novel coronavirus and the COVID-19 disease it causes are severely disrupting the global economy, causing untold pain and suffering and affecting the quality of life for hundreds of millions of people. Expara VirTech is looking for entrepreneurs and start-ups who are developing products and services that will help address the pain, problems and economic and societal changes caused by this and potential future pandemics.

The accelerator will be conducted 100% on-line, requiring no travel or face-to-face meetings. Workshops will be conducted via e-learning; mentorship sessions will be done via Zoom.

Selected teams will receive 3 months of intensive online acceleration, mentorship and funding, culminating in an online Demo Day.

Website link:
https://gust.com/programs/expara-global-viral-tech-accelerator-i
https://www.startupsvscovid.com/programs/recCMjD5C0YGh6zEs

CoSara Diagnostics manufactured COVID-19 Test Kit

The Logix Smart™ Coronavirus Disease 2019 (COVID-19) Test kit is an in vitro diagnostic test that uses patented CoPrimer™ technology for the qualitative detection of the RNA from Coronavirus.

No mutations observed under Co-diagnostics Logix Smart™ COVID-19 CoPrimers™ probes/ primers which are 2.5 Million times more effective in reducing amplification errors. The test operates using a single-step real-time reverse transcriptase polymerase chain reaction (RT-PCR) process in lower respiratory and upper respiratory tract fluids for COVID-19.

Website link:
https://codiagnostics.com/products/diagnostic-solutions/logix-smart-covid19/
https://www.startupsvscovid.com/startups/recoyr3TAM9hEckS3

SilveryNanos Innovations develops Nano-tech solution to disinfect surfaces

SilveryNanos Innovations, a Mumbai-based start-up has applied their proprietary Nano-tech solution to disinfect surfaces like steel, plastic, wood, etc. to stop community spread of COVID-19. The innovation formula is Superlipophobic and Superlipophobic with antibacterial properties. The solution is Superlipophobic and therefore will not allow lipids to attach plus its antibacterial so that it will not go to any bacteria or living cell to multiply and stay on surfaces.



Website link:
http://www.divyainnovation.in/
https://www.startupsvscovid.com/startups/recnD0ZVwsLWIKUJE

MedSec developed comprehensive technology-based tool for contact tracing and monitoring

MedSec is the first comprehensive technology-based tool for actively managing the COVID-19 pandemic. MedSec is built with GIS and Geolocation protocols and utilizes the power of cloud computing, real-time data, analytics and crowd-sourcing.

It consists of a Citizens app and an Administration Tool for use by government, state and local administration including medical case officers. The solution is highly scalable and designed for deployment from smallest of locations to an entire state and country.

Website link:
https://www.youtube.com/watch?v=ds_DDEBWQO8
https://www.startupsvscovid.com/startups/recdYpcpKVO5iRRZK

PadCare Labs develops UV-based sanitization system to combat COVID-19

PadCare Labs from Pune is an innovation-driven company solving unmet need of menstrual waste management, which is providing safe, accessible and eco-friendly decontamination system to sanitize inanimate objects through institutional organizations by novel UV design technology which is instant, portable and cost-effective in operation unlike traditional chemical sanitizers. The germicidal range of UV light, known as UVC, deactivates bacteria, viruses, and other microbes by attacking their DNA. UVC light is able to penetrate the cells of microorganisms and disrupt the structure of the DNA molecules. The microorganisms, in turn, lose their reproductive capability and are destroyed, rendering them inactive and no longer harmful. The germicidal

nature of UVC is well-suited to treat microorganisms which become extremely resistant to chemical disinfectants, as they are unable to develop immunity to UVC light. Two such UV-based products for sanitization and disinfection of area and inanimate objects are UVSAN and UVHandy.





UVSAN: It is used to disinfect the larger areas like hospitals, ambulance, shopping malls and PPEs etc.

UVHandy: It is used for disinfection of inanimate objects.

Website link:
https://padcarelabs.com/covid19/
https://www.startupsvscovid.com/startups/recbnNlUdb58z2C8a

First Made In India COVID-19 tests kit by Mylab gets commercial approval

As India fights back the COVID-19 pandemic, limited testing facilities and expensive testing kits has become the biggest concern for the authorities. In order to combat this challenge, the Pune-based molecular diagnostics company Mylab Discovery Solutions Pvt Ltd, which specializes in molecular diagnostic kits has developed the first made in India test kits for COVID-19 in a record time of six weeks.



The kit is the first one to receive commercial approval from Central Drugs Standard Control Organisation (CDSCO) and is named as Mylab PathoDetect COVID-19 Qualitative PCR kit. Further, Mylab is the only Indian company to have achieved 100% sensitivity and 100% specificity in the ICMR evaluation. PathoDetectTM CoVID-19 detection kit has been developed and deployed implementing a robust diagnostic methodology for use in public health laboratory settings for the screening and detection of COVID-19.

Website link:
https://mylabdiscoverysolutions.com/clinical/infections/covid-19/
https://www.startupsvscovid.com/startups/recZpwCzuFF2KzbWG

Peptris develops network model for accelerating drug discovery process

Peptris is a platform technology company enhancing efficiencies across the drug discovery and development cascade using Artificial Intelligence/Machine Learning. Peptris design and develop deep neural network models to learn from the vast amount of existing knowledge about proteins and small molecules.

Website link:
https://www.peptris.com/#technology
https://www.startupsvscovid.com/startups/recX3YTEx7b6MY6Qu

Telemedicine platform to answer multifaceted questions by specialists from all over the country

Intelehealth is a telemedicine and case management platform out of Johns Hopkins University that enables NGOs and government agencies to deploy frontline health workers, remote doctors

and healthcare providers to deliver high quality health services to the last-mile populations. Intelehealth has programs in India, Philippines, Haiti and Syria.

Its unique technology platform (mobile platform and intelligent diagnostic technology which can triage up to 74 diagnosable conditions) is being customized to create an urgent and timely response to mitigate the devastating effects.

COVID response-specific features: Telemedicine-based case management for persons under observation and those in quarantine/isolation at home; Active and passive surveillance screening templates for health workers; Real-time data dashboards to visualize suspect and confirmed cases; Referral pathways and care coordination for testing and treatment; and Health information messages (WHO verified) to counteract misinformation that is being spread on social media

Website link:
https://www.startupsvscovid.com/startups/recUn3yP7KjH8LqMR

NanoClean Global develops nano-fiber-based nasal filters

NanoClean Global, a Delhi-based start-up, has developed advanced Nano-fiber-based filtration media for various applications in healthcare and industrial filtration systems. The company has developed affordable, non-intrusive respiratory nasal filters that offer unparalleled comfort and performance simultaneously.

The company has leveraged their proprietary tech to develop low-cost FFP2 face masks - the first line of defense against COVID-19.

Website link:
https://nanoclean.store/
https://www.startupsvscovid.com/startups/recOG51amIEgWbRBg

Jayna Packaging manufactured bio-disposable furniture

Jayna Packaging, a Mumbai-based start-up, has developed cost effective, compact, eco-friendly, bio-disposable furniture including beds, chairs and tables during the pandemic. They produce this in large quantity and can help in providing a cheap and effective solution for quarantine beds and support furniture.

Website link:
https://www.jaynapackaging.com/
https://www.startupsvscovid.com/startups/recLIyIjqV3SJkLkh

RayIoT Solutions uses IoT for providing assistance during shortage of medical professionals

RayIoT Solutions, a Bengaluru-based start-up, uses patent-pending sensor technology with AI and DSP algorithms to track breathing rate patterns of the patients, which helps in diagnosing it different from Flu. RayIoT also enables patients to convert any space into a quarantine space with a clinical setting by providing assistance in arranging of a number of medical equipment as listed.

Mini non-contact ICU Unit: There are 4 vitals that get tracked in an ICU unit while monitoring a COVID-19 patient. These are Respiration Rate, Heart Rate, BP and Temperature. The start-up provides a mini non-contact ICU unit with real-time details and measurements of these vitals.

Central Quarantine Database: All the devices can be connected to one central database that lets the monitoring of more than 1 Lakh patients at a time continuously. By just tracking respiration rate, one is able to intelligently categorize the quarantine patients into mild, severe and critical cases.

Video and Audio option: The doctor can see the video and the audio of the patient who is categorized as critical or severe. This also helps doctors to select the patient who needs care and direct the resources to the right patient. Doctors remain safer as they avoid contact with the patients.

Website Link:
https://www.startupsvscovid.com/startups/rec1WIYEIZ0ZgkmA3

Orbuculum provides Ayurvedic solutions to COVID-19

Orbuculum, a Bengaluru-based start-up has developed a proprietary AI tool that helps researchers and scientists in situations of epidemic where time is a major constraint. The team was able to identify the proteins present in SARS-CoV-2 spikes and receptors in human body to which it binds to. The AI platform has been able to identify the target organs for COVID-19 to attack. Furthermore, in collaboration with Ayurvedic researchers and doctors, the team has been able to curate herbs that are scientifically proven and tested for many years to boost the immunity of the target organs. These preventive supplements are available under the brand name of GenoVeda Saar.

Website Link:
https://www.orbuculum.xyz/

APIplatform.io develops prototype for AI-Chat Bot for Virtual Assistance

The Bengaluru-based start-up offers no-code cloud-agnostic API Engineering and Management Platform that automates generation, validation, deployment and security configuration of REST APIs and further accelerates the time to market by increasing productivity by 2400x with cost reduction by 250x. The team has developed Covid19 Virtual Assistant to help people address their queries/challenges proactively as well as collect and disseminate data to respective Government or any authorized personnel. This is supplemented with visualization dashboards for analytics and monitoring of data related to COVID-19 - India or worldwide. Rest APIs can be integrated to Email, SMS, WhatsApp, Slack or even create tickets to handle the issues.



Website Link:
https://covid19.apiplatform.io

Menla provides healthcare assistance in hilly areas of Gangtok

Gangtok-based start-up Menla empowers, enables and connects mountain communities in Sikkim to preventive healthcare solutions. Healthcare system in Sikkim faces challenges like connectivity, accessibility and affordability in mountainous regions and the aim is to overcome these by designing public service for the same.

Website Link:
https://menla.org/

DNA Xperts develops cost-effective, indigenous RT-PCR kit

DNA Xperts, a Noida-based start-up has developed a cost effective and indigenous real-time PCR kit-based diagnosis of Coronavirus which is funded by C-CAMP. DNA Xperts was established in 2015, aiming at proving the healthcare community with high quality molecular diagnostics services. It has now grown into a Life Sciences contract research organization (CRO) offering solutions and services in the area of Genomics, Proteomics, Metabolomics and Molecular Diagnostics. The start-up aims to develop novel molecular diagnostics solutions for various infectious diseases.

Website Link:
www.dnaxperts.com

AgVa Healthcare develops fully-functional portable ventilator



AgVa Healthcare, a Noida-based start-up has developed fully functional portable ventilator that can be used in varied locations - from a rural home to a clinic to an advanced ICU. The start-up is currently working towards raising the production of ventilators to 12,000 units every month capacity. The entire ventilator can be controlled by a capacitive multi-touch interface with extremely simple control. Gesture control lets easy operation without much training. The entire screen can be customised within seconds to display the necessary parameters as per the need of the patient. AgVa's proprietary virtual knob lets you change the settings swiftly and accurately.

Website Link:
https://www.agvahealthcare.com/

HelloDoc develops teleapp for movement-free consultation services to patients

HelloDoc, a New Delhi-based start-up develops a teleapp solution which brings doctors, hospitals, diagnostics labs, wellness centres, pharmacies and insurance onto a single platform to meet end-to-end needs of patients while providing discounted services at their partner centres all over India.

Website Link:
https://hellodocapp.com/

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OUTREACH INITIATIVES

e-Learning platform by Atal Innovation Mission

Atal Innovation Mission (AIM) is running a 'Tinker from Home' campaign for the ATL students for encouraging them to leverage the ATL modules/resources available online to keep themselves occupied.

Website Link:
https://aim.gov.in/resources-for-atl-incharge.php

EIC 91Sprinboard resource repository for solving COVID-19 challenges

91Springboard has launched a community repository of resources supported by Atal Innovation Mission (AIM) and updated in real time for solving COVID-19 challenges. 91springboard is a co-working space focused on building workplace communities that foster learning and exchange of knowledge among their members.

Website Link:
https://www.startupsvsCOVID.com/

Intelehealth – a telemedicine and case management platform

AIC – Ncore Incubated Intelehealth is a telemedicine and case management platform out of Johns Hopkins University that enables NGOs and government agencies to deploy frontline health workers, remote doctors and healthcare providers to deliver high quality health services to the last mile populations.

Website Link:
https://www.intelehealth.org/

Menla Preventive Healthcare System

The product is a digital application for citizens and healthcare providers which serves as a platform to communicate and share health-related information. Healthcare system in Sikkim faces challenges like connectivity, accessibility and affordability in mountainous regions and the aim is to overcome these by designing public service for the same.

Website Link:
https://www.startupsvscovid.com/startups/rec7wF0fEswQ9wsTA

Project ECHO India

Project ECHO is a collaborative model of medical education and care management that empowers clinicians everywhere to provide better care to more people, right where they live. It works towards building capacity in the areas of healthcare, education, and others.



Website Link:
https://www.echoindia.in/

Meraki Foundation, in partnership with Delhi Government, launches digital campaign

Lockdown during COVID times has increased stress levels among parents, more so for the ones living in poverty with diminishing means. This parental stress is a massive threat to the emotional well-being and learning levels of millions of children. To tackle this challenge, Meraki, in partnership with Delhi government, has launched a digital campaign, Parenting in the times of Corona. Additionally, they've launched digital "Micro-courses" for parents to help build a supportive environment at home for the children.

'CHILDLINE 1098' received 3.07 lakh calls in the first 11 days of India's nationwide lockdown

Website Link:
https://merakifoundation.in/

Reap Benefit – a hyper local citizen engagement platform

Reap Benefit is a hyper local citizen engagement platform which enables citizens to assist the local government in last-mile delivery of citizen services to the underserved communities. The platform provides Hyper Local Information related to COVID, Hyper Local reporting by citizens regarding social distancing, Hyper Local support to migrant workers, Daily wage labourers, Mapping local NGOs/civil society organizations providing support, Mapping of all government schemes and food/ration support.

Website Link:
https://reapbenefit.org/

Atal Incubation Centre – Rambhau Mhalgi Prabodhini Essential services on COVID-19

I-CAN (India Co-Win Action Network) is an initiative by Atal Incubation Centre- Rambhau Mhalgi Prabodhini (AIC-RMP) in collaboration with Connecting Dreams Foundation (CDF) to help underprivileged communities that have been hardest hit due to COVID-19. It is a unique movement to combat the pandemic through an online platform that connects those help seekers and help givers.

Website Link:
https://icanonline.in/

Omnicuris Healthcare developed online video-based training modules and case studies in COVID management

Omnicuris Healthcare Pvt Ltd has developed online video-based training modules and case studies in COVID management for healthcare professionals (HCPs). It helps HCPs to stay on top of COVID protocols and guidelines through an easy-to-use cloud-based mobile app and stay on top of latest COVID management protocols. So far over 3000 HCPs have been benefited through this module.

Website Link:
https://www.omnicuris.com/

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