Venture Center's Initiatives to Fight against COVID-19

Table of Contents

1. Introduction to Venture Center

Entrepreneurship Development Center (trademarked and famously known as Venture Center) hosted by CSIR-National Chemical Laboratory (NCL) in Pune is India's largest inventive enterprises and science business incubator. The Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the "Pune region" in India. The Venture Center aims to empower and enable scientists and engineers in pursuing technology, innovation and entrepreneurship objectives.

It is home to more than 75+ resident start-ups at any given time and in the last 13 years since inception in 2007 Venture Center has supported >450 knowledge intensive enterprises, innovators and entrepreneurs in developing IP rich deep-tech products and services through its various incubation programs.

Venture Center was founded with support from NSTEDB, Department of Science and Technology, Government of India. Venture Center is NIDHI Center of Excellence, national implementation partner for the NIDHI-Entrepreneur in Residence Program and NIDHI Prayas Center. Venture Center also hosts a BIRAC BioNest (Bioincubator), BIRAC Regional Bioinnovation Centre, Center for BioPharma Analysis and Technology Transfer Hub. Venture Center is a BIRAC-Biotechnology Ignition Grant partner and home to NIDHI Seed Support System of DST-NSTEDB and BIRAC Seed and LEAP fund.

Venture Center is the winner of National Award for Technology Business Incubator 2015, Asian Association for business Incubation (AABI) Incubator of the year 2018 & National Entrepreneurship Award (for Eco-system Builder) 2019.

More about Venture Center: http://venturecenter.co.in/

2. List of various initiatives taken by Venture Center towards managing the crisis due to to COVID-19

As the COVID-19 coronavirus situation is becoming challenging day-by-day worldwide, Venture Center is directing all its efforts towards developing solutions for some of the pressing needs in the times of such crisis and also helping entrepreneurs build technologies to fight this global pandemic.

Venture Center has created an online platform to capture all its efforts in this direction. https://www.venturecenter.co.in/covid19/
A list of all such efforts is given below,

a) Venture Center is the Nerve Center of "Task Force on Repurposing Drugs for COVID-19" (TFORD).
b) Creation of Pune Face Shield Action Group
c) Creation Pune Non-Contact Thermometer Action Group
d) Funding support for startups: Call for proposals under Special Drive for COVID-19
e) Do it yourself at Protoshop at Venture Center
f) COVID19 Resource Center for Regulations and Test Standards-An RIFC initiative of Venture Center
g) Venture Center is a satellite partner for National funding call-CAWACH, an initiative of NSTEDB,DST, Government of India
h) Supporting more than two dozen startups for technology development relevant to COVID-19 and facilitate scaling-up their deployable technologies and raising funds (For e.g. Mylab Discovery Solutions Pvt. Ltd.)
i) Facilitating Technology Transfer through TechEx
j) Joining hands with other organizations fighting for COVID-19

3. Mechanism of implementation, progress and impact

This section briefly talks about the mechanisms & processes that Venture Center has used to bring all its initiative into measurable actions, progress so far and impact.

a. **Venture Center is the Nerve Center of "Task Force on Repurposing Drugs for COVID-19" (TFORD- COVID 19)**.

The Principal Scientific Advisor to the GoI, Dr K VijayRaghavan, has constituted a S&T Core Group on COVID19. Under the aegis of the S&T Core Group on COVID19, a Task Force has been constituted focused on Repurposing of Drugs for COVID19
The Task Force is being coordinated by:

Dr V Premnath, Head, NCL Innovations at CSIR-NCL and Director, Venture Center
Dr Anurag Agarwal, Director, CSIR-IGIB

Key goals of this initiative are:

- Information collection and dissemination
- Systematic analysis, organisation, categorisation, prioritisation
- Inter-disciplinary advisory group; Engagement platforms; Learned opinions
- Foresight on path to market and bedside; suggest alternative routes to market
- Anticipate barriers and suggest mechanisms to remove barriers
- Virtual network of stakeholders; Connecting the dots

Progress as in second week of April 2020 :
Venture Center has organised a team that is working on this project. The Nerve Center is located at Venture Center for ease of operations. The team has gathered in-depth information on various drug candidates to allow informed decision making.
Preliminary website of the TFORD-COVID19: http://www.nclinnovations.org/covid19/ has been created. The website captures the following information,

- 6 Molecule Briefs are now public and available to all for free download at the site.
- 1 Assessment Framework for IP is now online
- An online Discussion Forum has been created
- Funding options have been identified and listed on the site

All efforts for this work have been publicized via various social media platforms like Twitter and LinkedIn.

- Twitter: https://twitter.com/TFORDCOVID19
- Linkedin: https://www.linkedin.com/in/tford-covid19/

---

b. Creation of Pune Face Shield Action Group

An enthusiastic group of startup entrepreneurs and Venture Center staff rallied together to take up the challenge, design, fabricate and deliver the requested face shields as soon as possible.
Details available here: https://www.venturecenter.co.in/faceshield/
The Pune Face Shield is a simple and low-cost design of a Face Shield designed by entrepreneurs and staff at Venture Center. It is based on a design originally put online by Makers Asylum, Mumbai. However, the Pune Face Shield design uses MDF and can be machined (other than laser cutting). This makes the process simpler, cheaper and scalable.The Pune Face Shield Designs are now available freely for download under a Creative Commons Attribution – Non Commercial – ShareAlike 4.0 International Public License.

Venture Center is raising funds for this initiative via CSR from corporate, individual and

organizational donors.

As in the second week of April 2020 Pune Face Shield Group at Venture Center has

- Donated: 15700+ Face Shields
- Daily production: 2500 per day
- Number of beneficiaries: 38 Institutes
- Funds raised for the activity so far: ~7 lakhs
- Number of donors: 61 organization and individuals
- Number of volunteers : 34 (includes VC startups and staffs)

---

c. Creation of Pune Non-Contact Thermometer Action Group

The non-contact thermometer is designed and developed using readily available modules to provide safe and quick temperature measurement of the forehead for primary screening during current COVID19 emergency. The design is made available open source wherein the complete knowhow with mass manufacturing ready hardware and software design is available to manufacturers for free. This is an effort to enable a large number of manufacturers to manufacture the thermometers and cater to their local needs. Now it is in process of being scaled up in partnership with NCL (National Chemical Laboratory) with BEL (Bharat Electronics Ltd. Pune)

The non-contact Thermometer is designed and developed by BMek, a startup at Venture Center and Protoshop at Venture Center.

The technical details of this device are available for copying under the Creative Commons – Noncommercial- share Alike Licence at: http://www.protoshop.in/covid19/

As in second week of April 2020,

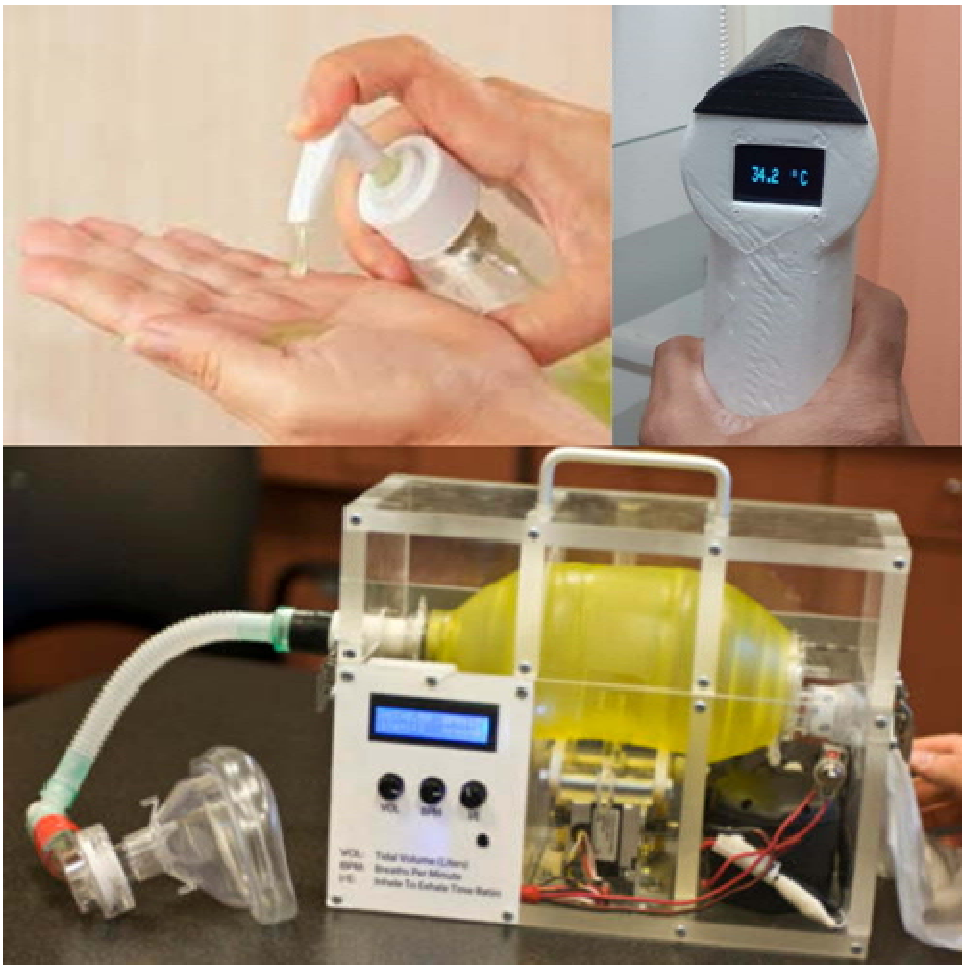
Seven prototype units have been manufactured at Venture center till date. One unit is being used at NCL Innovation Park gates, One unit at NCL Medical center and five units were handed over to Pune Police.



d. Do it yourself at Protoshop in Venture Center;open source projects

The Venture Center's Protoshop team has announced and made available the following open source projects relevant for COVID19 response.

- IR Thermometer
- Face Shields
- Alcohol based hand-rubs
- Open source Ventilators
- Reusable cotton masks
- Decontamination and Reuse of N95 Face Mask



More information about the above can be found here: http://www.protoshop.in/covid19/

---

e. **COVID19 Resource Center for Regulations and Test Standards - An RIFC initiative of Venture Center**

COVID19 Resource Center for Regulations and Test Standards for products needed urgently for the national response to the COVID19 crisis. Visit rifc.venturecenter.co.in/covid19/
This is an initiative of Regulatory Information and Facilitation Center at Venture Center (supported by BIRAC under the BIRAC Regional Bioinnovation Center)

---

f. Funding support for startups: Call for proposals under Special Drive for COVID-19

Under the aegis of DST-NSTEDB and NITI Aayog, Venture Center announced a special call for proposal from startups and entrepreneurs with technology which are relevant to COVID-19 and can be deployed within the next few months for financial support to expedite validation, testing and its commercial deployment through the following programs.

a. NIDHI PRAYAS (grant funding up to Rs 10 Lakh)
b. NIDHI COVID-19 Seed Support System (Equity investment)
c. Recommendation to TDB (Soft Loan)
The call was opened on 23rd March and closed on 25th March 2020

Venture Center carried out an expedited evaluation and shortlisted following companies for funding support.

Name of the company	**Logo**	**Brief note on proposed solution for COVID-19**	**Selected under**
Seagull Biosolutions Pvt. Ltd.		The company is working to on developing Immunodiagnostic ELISA kit and potential vaccine candidates for COVID-19	NIDHI SEED SUPPORT SYSTEM by NSTEDB, DST
Module Innovations Pvt. Ltd.		The company proposes to develop develop a rapid 15 minutes Lateral flow test based on gold nanoparticles for the detection of S1 and S2 spike proteins of COVID-19	NIDHI PRAYAS by NSTEDB, DST
BMeK LLP		The company is developing thermal scanning and analysis tool for mass scanning and cloud computing	NIDHI PRAYAS by NSTEDB, DST

g. Venture Center is a satellite partner for National funding call-CAWACH, an initiative of NSTEDB, DST, Government of India

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.

Under this initiative a nation-wide call has been announced requesting proposals from startups working on developing solutions for COVID-19 for funding assistance up to Rs 2 crore per start-up. More details available at: https://isba.in/cawach/

Venture Center is a partner to this program and a Satellite Center. Venture Center will be responsible for shortlisting proposals and managing and tracking progress for the shortlisted startups affiliated to Venture Center.

---

h. Supporting more than two dozen startups for technology development relevant to COVID-19 and facilitating scaling-up the deployable technologies and raising funds (For e.g. Mylab Discovery Solutions Pvt. Ltd.)

i) Venture Center's Startups Against COVID19.

Startups at Venture Center have lined up to fight against COVID19. These startups function in a plethora of domains such as Diagnostics, Peripheral Medical Devices, PPEs & Assistive Devices, Sterilizers & Disinfectants, Digital Technology & Informatics.

.

Find out what these startup are developing to combat with COVID-19 here: https://docs.google.com/spreadsheets/d/1DpLEOuvmf0ZHuy-IkFmh0xzVJPRWg0jSfioloFUqP94/edit

ii) Venture Center support startups to scale up their technology and facilitate fund raising.

Mylab Discovery solutions
Translating Discovery to Delivery

Mylab is an innovative biotechnology company providing next-generation testing kits aimed at providing solutions to life science and diagnostic industry. Mylab has developed "PathoDetect" which is a CoVID-19 detection kit that offers an in vitro diagnostic real time PCR assay for qualitative detection of 2019-novel Coronavirus RNA in respiratory specimens. It is only Made in India KIT with 100% accurate results compared to other domestic and international competitors. It has been approved by Central Drugs Standard Control Organization (CDSCO)and ICMR.
Venture Center is supporting Mylab in providing advice and access to CSR funds to rapidly scale their operations to meet the National need in this moment of crisis.

---

i. **Facilitating Technology Transfer through TechEx**

TechEx.in is a Technology Transfer Hub operated by Venture Center, Pune, India and supported by the National Biopharma Mission (Govt of India). It aims to help technology developers and technology commercialization entities find each other, forge partnerships and advance the technology closer to the market in a win-win partnership. TechEx.in (Tech Transfer Hub) in Pune shall be happy to facilitate (on a pro bono basis) Technology Transfer between Technology Providers and Seekers for Technologies that can be deployed rapidly by manufacturers to assist in the National Campaign against COVID19.

More details can be found here: http://www.techex.in/covid19/

---

j. Joining hands with other organizations fighting for COVID-19

Venture Center is happy to associate with other organizations fighting for COVID-19. Venture Center is responding to various national calls, CSR opportunities announced by several organizations and other initiatives.

A list of such organizations and associations is given below,

a. CII
b. InvestIndia
c. Indian Railways
d. Pune Platform for COVID-19 response (PPCR)
e. DST media cell
f. ISBA
g. AGNii
h. PSA's office
i. Other organizations offering CSR

4. Recognition across various media platforms

Venture Center's initiatives to fight against COVID-19 have attracted significant media attention. Many of the leading media agencies like ANI, Indian express, NDTV, Republic TV,

local news agencies and many others have captured these efforts.

All these initiatives are also available at :

The deep-impact technologies developed by Venture Center's incubatee startups have also been recognized at various platforms.

VENTURE CENTER