

Savitribai Phule Pune University



विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY



Prof. Dr. Nitin Karmalkar,
Vice Chancellor, SPPU
Chief Patron

**Technology Enabling
Center (TEC)**

DST - SPPU

NEWSLETTER

Year 2 Volume 1



Prof. Dr. Aditya Abhyankar,
PI – DST-TEC-SPPU
Chief Editor

DST – Assigned Mentor



Prof. Dr. K Balasubramanian,
Professor, Mechanical Engineering
IIT Madras (IITM)

JAN 2020 – JUNE 2020

By:
DSTs
Technology Enabling Center (TEC)
SAVITRIBAI PHULE PUNE UNIVERSITY



**Dr. Mrs. Anita
Aggarwal, DST- India**

**Dr. Krishna Kanth
Pulicherla, DST- India**



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DST – Mentors – Authorities - Advisors

Introduction: TECHWINGS FROM DST-TEC

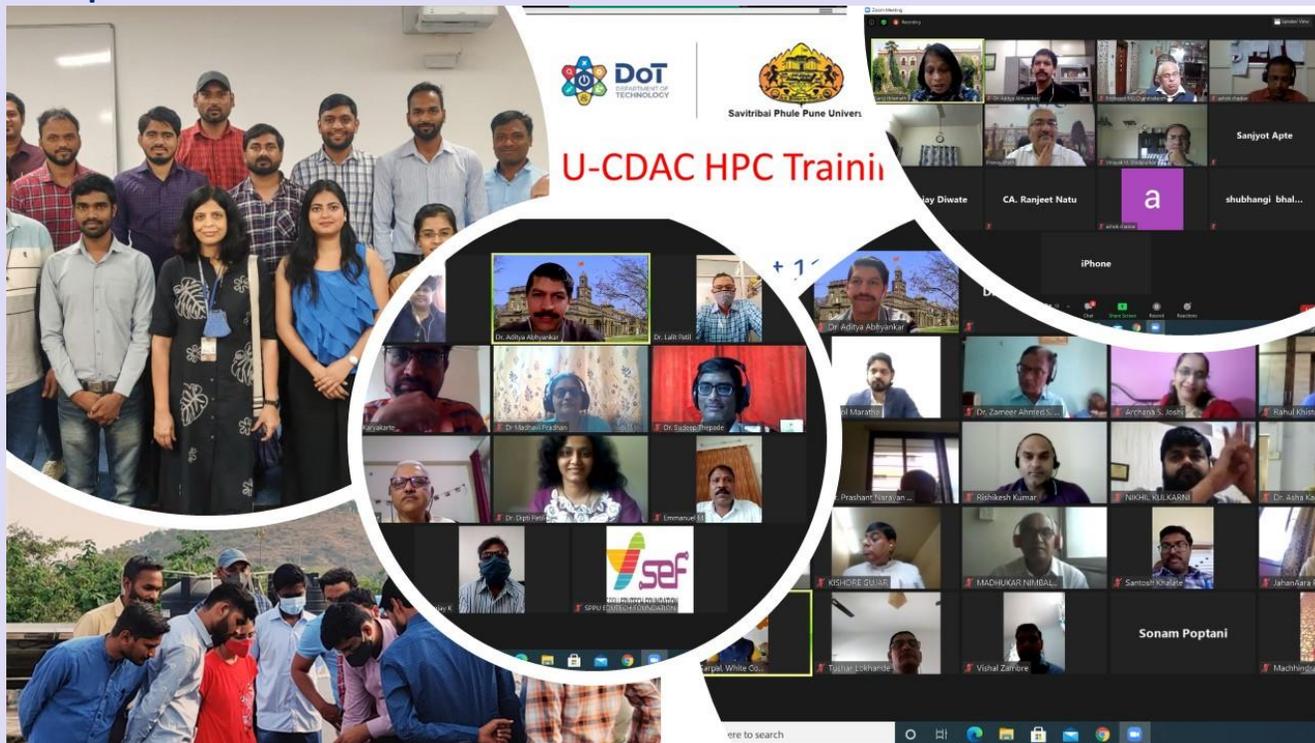
DST-TEC at SPPU aims to promote inclusion, access, and equal opportunities for Researchers, Scholars, Students who have brilliant project ideas for solving real world problems and they are looking for industry collaborations. DST-TEC at SPPU provides an array of services, including assessment, training and assistive technology devices to help enable individuals to participate fully in their community and the workforce. This center aims to act as a bridge between people and the technology that can improve their quality of life.

Activities carried under DST-TEC at SPPU during January 2020 – June 2019:

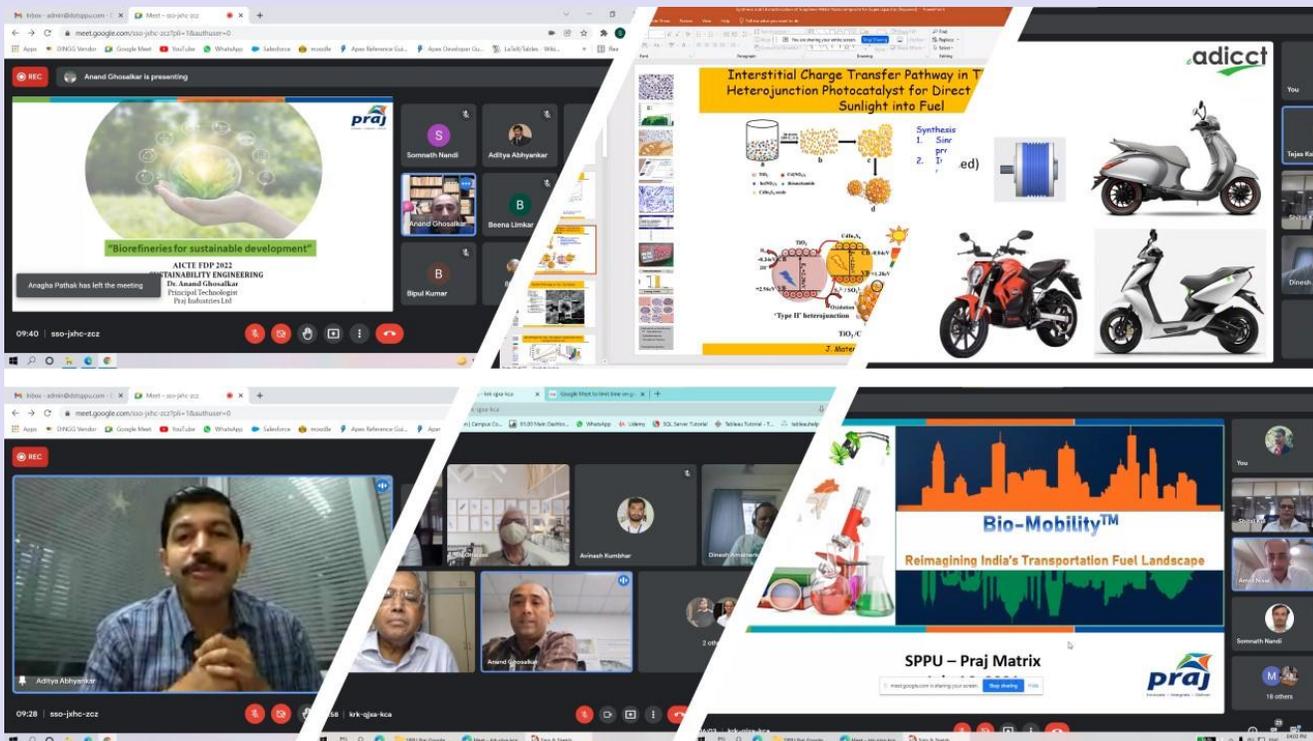
Following table presents a summary of the activities carried out under DST-TEC at SPPU during July 2019 – December 2019:

Date	Activity	Outcomes
5 th Jan 2020	SME Summit	100+ Industries participated, questionnaires and mapping of industry needs, regional assessments, product evaluation platforms, brainstorming on strengthening of ecosystem
14 th Jan 2020	One day workshop for SPPU campus	70+ stakeholders participated, only SPPU on-campus departments were involved, mapping of on-campus facilities, commercialization drive and industry revenue sharing models got discussed and evolved.
3 rd February 2020	Two day workshop at Nagpur/Wardha	280+ participants from various institutes from in and around Nagpur, 3-tracks of student competition conducted, 8 prizes and 3 ideation support offered.
27 th March 2020	First on-line mentoring session	30+ potential start ups screened and 3 awarded with certificates, 6 selected
2 nd May 2020	On-line IPR workshop	IPR awareness workshop, 200+ stakeholders participated, SPPU's IPR policy was highly appreciated, detailed discussions on tech-transfers etc took place
9 th May 2020	On-line Mentoring session	Online One-on-one mentoring sessions for the select 4 start-up ideas
21 st May 2020	On-line strategic discussion	26+ participants, discussions were held towards modus operandi of TEC during lockdown
15 th June 2020	On-line session for mental health	80+ participants with online interactive session on mental health, participants contributed by taking part in discussion and asking questions, counselling sessions suggested for select 6 groups

Glimpses of various activities conducted:



Various Activities conducted from January to March (Mostly offline before lockdown and all online after)



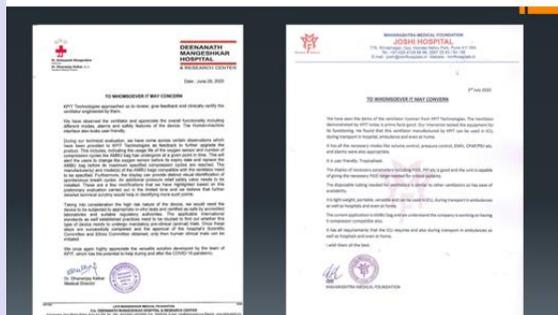
Various activities conducted from March to June. All the activities were conducted in online mode due to lockdown. This includes First on-line mentoring session, On-line IPR workshop, On-line strategic discussion, On-line session for mental health etc.

Success story 2.1 incubated at TEC: eadicct

Non-Invasive Ventilator Development for Covid19 DST – TEC, SPPU Project

- Project Initiated by Tejas Kshatriya at Department Of Technology, SPPU under mentorship from **Dr. Aditya Abhyankar**, support from **VC Dr. Nitin Karmalkar** (March 2020)
- The Project is being done in two Phases
- Phase 1 : Automated AMBU bag Resuscitator** for emergency use
- Phase 2 : Compressor based Non-Invasive Ventilator**

Non-Invasive Ventilator Development for Covid19 DST – TEC, SPPU Project



Prana-SetO₂

All-in-one Machine
HFNC, CPAP, BIPAP with Integrated Humidifier

Portable
Suitable for Homecare, Hospitals & ICUs, Transportation

Highly Adaptable & Reliable
Smart algorithms to conserve Oxygen

24x7 Operation



Company Administrative Details

Company Founded in	July, 2015
Company Name	EADICCT MOBILITY SOLUTIONS PRIVATE LIMITED OPC
Entity Type	Private Limited OPC
Registered Office	202, Sarfa Camelia, Cosmopolitan Society, ITI Toad, Aundh, Pune- 411007
GSTN	27AAECE01H1D1ZE
Registered Under Startup India	Yes, DIPP16801
Udyog Aadhar	MH26A0205596
Website	www.eadicct.com
Email	info@eadicct.com
Products/Services	Pedal Assist e-cycle Powertrain Technology for 2/3 wheelers Healthcare Technology

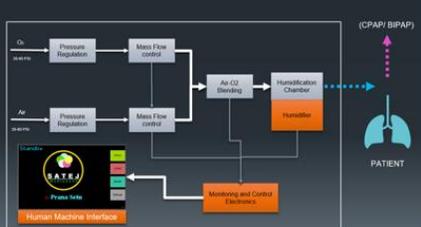


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Get well soon !

Technical Specifications

Modes (Pediatric+ Adult)	<ul style="list-style-type: none"> HFNC CPAP Bi-level CPAP/ BIPAP 	Pressure	<ul style="list-style-type: none"> CPAP : 2 to 25 cmH₂O Bi-level CPAP : 2 to 20 cmH₂O
Gas Source	<ul style="list-style-type: none"> O₂ supply : 45-60 PSI Air Supply : 45-60 PSI 	HMI	<ul style="list-style-type: none"> 7" Touch Screen LED Realtime trend for P, F, FiO₂, Flow
Flow Capacity	<ul style="list-style-type: none"> 2-60 lpm (HFNC) 200 (O₂+Air) lpm for CPAP/ Bi-level CPAP modes 	Alarms	<ul style="list-style-type: none"> Flow, Pressure, FIO₂ Apnea (CPAP/ Bi-level CPAP) Sensors and Breathing
FiO₂	<ul style="list-style-type: none"> 21%-100% Independent adjustment for IPAP and EPAP 	Add on Features	<ul style="list-style-type: none"> Humidifier Water supply Remote Monitoring
Humidifier	<ul style="list-style-type: none"> 31°- 41° C adjustable 	Advance Version	<ul style="list-style-type: none"> Pranayam Mode (Pediatric)
Barometric Compensation	<ul style="list-style-type: none"> Sea Level – 24000+ Ft 	Standard Accessories	<ul style="list-style-type: none"> Humidification Chamber Breathing Circuit- Non-Heated CPAP/ Bi-Level CPAP

Prana-SetO₂ (Flow Schematic)



Contact: **DST – TEC (Technology Enabling Center) at Savitribai Phule Pune University**
Department of Technology, Ganeshkhind, Shivaji Nagar, Pune – 411007, MH, India

<https://goo.gl/maps/CMPga7dJLeRnqtrD7>

http://www.unipune.ac.in/dot/tech_webfiles/DST-TEC.htm

Phone: +91-020-25601270, Email: hodtech@unipune.ac.in

***** End of the Newsletter *****