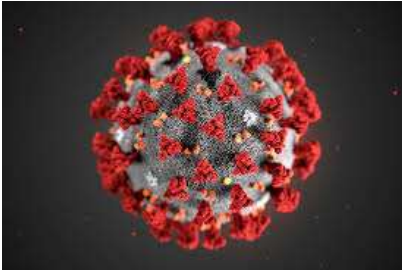


# Vigyan Ashram Status Report

Volume 38 Issue 05

May 2020

In this issue



## COVID Response by Vigyan Ashram

- Online Entrepreneurship Development Program
- Training to NGOs for development of Kitchen Garden
- Group projects on campus: Entrance gate, Organizing Scrap yard, Outdoor seating arrangement for food lab.
- Designed and fabricated UV Disinfection box and Sodium Hypochlorite (NaOCl) making unit.

[ We are under lockdown. Limited staff and students are staying on campus. Many of our team members are working from home. We are trying our best to contribute in fight against COVID pandemic. We thank you for your support in this challenging time]

## A] Online Entrepreneurship Development program for migrated youth

We are conducting online training program for rural youth returning back & willing to stay back in the villages. We are reaching out to students using social media campaign & got good response. Following are details: –

i) **EDP program on Food processing technology:** EDP on Food processing was started on 6<sup>th</sup> May with an introductory webinar by Mrs.Sarikha Jagtap (a successful food entrepreneur). The introductory session was attended by 35 participants. Based on the feedback & need analysis of participants a complete EDP program was started on 16<sup>th</sup> May with 32 participants. It is 30 hrs of online classes, personal mentoring & google class room based assignments. During the month of May, five sessions were completed covering business management & basic food processing technology details. After online session, participants will get a chance to join hands-on training at Pabal campus (post lockdown).

ii) **New livelihood opportunities in computer-based enterprises** – Online session on new opportunities in free-lancing, lok-seva kendra, computer aided services were started from 19<sup>th</sup> May. First introductory session was attended by 95 participants. Successful entrepreneur Mr.Tushar Ranjankar (Indapur, Pune) Mr.Lankesh Pasha (Latur) and Ms.Epshita Senapati (Freelancer,Odisha) were invited to introduce about their business to participants. We are in the process of launching follow up session in June.



## B] Training on kitchen garden

In collaboration with STARS forum, we have started 3 months online training program on 'healthy kitchen garden' on 27<sup>th</sup> May. Kitchen garden will be useful to meet nutritional requirement among poor people. The program aims to train WSHG and grassroot NGO field staff in science & sustainability of healthy kitchen garden. Course will introduce scientific approach in kitchen gardening like soil quality, seed bank, organic pesticides, composting etc. There are 60 participants and they are expected to grow their own kitchen garden as a part of course assignment.

## C] Do-It-Yourself Lab : Basics of electronics & 3 D designing

DIY Lab organized on-line training program for school children. First program was on Designing a digital game using SCRATCH ( 4<sup>th</sup> & 5<sup>th</sup> May) , Basics of electronics & 3D designing (6<sup>th</sup> – 25<sup>th</sup> May). Mrs Supriya Kadam, Ms Arundhati Jadhav, Mrs Snehal and Ms Pooja were resource person for the training. Those who had completed assignments and submitted it, were given certificates. Selected assignments and game are posted on :

<https://diymakerspace.wordpress.com/events/>

Following are training & participants details :

Class Session	Date	Participants
Scratch Game making	4.5.20	94
Scratch Game making	5.5.20	36
Tinkercad 1st lecture	6.5.20	100
Tinkercad 2nd lecture	9.5.20	85
Tinkercad 3rd lecture	11.5.20	62
Tinkercad 1st lect with IBT rural school	18.5.20	22
Tinkercad 1st lect 2nd batch	19.5.20	30
Tinkercad 2nd lect with IBT rural school	20.5.20	20
Tinkercad 3rd lect with IBT rural school	22.5.20	19
2D & 3D design online Course	23.5.20	21
Tinkercad 2nd lect 2nd batch	23.5.20	21
Scratch Game making for IBT students	26.5.20	12
Tinkercad 3rd lect 2nd batch	25.5.20	16
2D & 3D design online Course 2nd lect	27-5-20	20
2D & 3D design online Course 3rd lect	30-5-20	20



## D] COVID19 technologies updates:

Team of DIC students are working on developing innovative technology solution for COVID fighters along with their regular research project activities. Following are some of the highlights technology challenge-

- **UV disinfection box:** Disinfecting non-living daily use gadgets has been challenge in COVID19 safety. Things which cannot be disinfected by disinfection solution (even food items like bread, floors etc) has to pass through UV (type C) for time period of 1-3 min. Looking into the need of UC disinfection chamber, DIC student Prasad made first prototype of UV disinfection chamber. He also made UV torch to disinfected irregular surfaces. Initial trials showed it applicability for many daily use gadgets like mobiles, laptops, mechanical tools etc. For more details please visit <http://vadic.vigyanashram.blog/2020/05/16/uv-cabinet-prevention-from-covid-19/>
- **Producing NaOCl at domestic level:** Use of surface disinfectant has become common practice in every household. Instead of buying Sodium Hypochlorite (NaOCl), it can be easily produced at domestic (household) level by using common salt & electrode glass pot (for electrolysis process). DIC student Priyanka worked on developing basic prototype & documented it as easy to use DIY manual. We are planning to disseminate it through IBT schools network as their science project.



UV Disinfection Box



NaOCl Generator

<http://vadic.vigyanashram.blog/2020/05/27/domestic-disinfectant-generator/>

## E] Technology development project updates:

- **Solar Convection Dryer :** A new drying cabinet is designed & fabricated for solar convection dryer. This will replace square drying cabinet which was of lesser capacity & damaged during cyclone last year. After studying air flow, heat movement & space availability a new cylindrical cabinet was designed & fabricated work was started. New cabin is of 1.76 M<sup>3</sup> volume with 20 to 30 Kg drying capacity (fresh onion). Sunny & Pawan are working on its installation & trial testing.
- **Agro-waste composting trial** – Sonal has started agricultural waste composting trials at 6 location in



Fabrication of Dryer

Gulani village (Rajgurunagar) on 26<sup>th</sup> May. Due to lockdown movement in villages are restricted, but we are working with the support of local organization 'Harita', farmers group network to deliver microbial culture & other necessary material for trails.

- **Hydroponics Tower** : Tejas & Vipul have built Nutrient Film Technique (NFT) and flood-drain based hydroponics farming structure. Project aims at adoption & standardization of hydroponics techniques like system design, fertigation, crop selection etc. A pyramid shaped NFT structure accommodates 250 Plants in 360 Ft<sup>3</sup> space (12 Ft length \*5 ft width \*6 ft height) while flood & drain system accommodate 12 (5 lit pots).
- **Rural Ambulance Stretcher**: Pratik conducted two field trials of ambulance stretcher for on-road vibration & stability test. Stretcher mounted on tractor trolley for trial showed vibration of 6.21 Hz (around 40-50 % more than desire) and losses its stability in 15 to 20 minutes ride.
- **Review Meeting**: DIC students presented their project in monthly review meeting on 6<sup>th</sup> May to Dr.J.B.Joshi sir. Its decided that students will present progress on important research activities on 1<sup>st</sup> Wednesday of each months to get guidance from Dr.J.B.Joshi.
- Selco foundation conducted 'Innovative solar technology' training for VA technical staff @ 13<sup>th</sup> May. Training was part of SELCO technology adoption project.



**Rural Ambulance Stretcher**

**F] Fab academic course updates** – Three Fab academy students are working on campus for completing their assignments and projects. During the month of May, they have completed moulding & casting assignments, wild card week, networking and communication. They are working on 'Make a Machine' project as a group assignment.

**G] Admission OPEN : DBRT:2020-21** – We have announced admissions for Diploma in Basic Rural Technology course for 2020-21 educational year. We are planning to start course from 10th July.

Due to COVID pandemic, we are giving options to join course in online mode till situation become normal. We are giving option of attending practical session through nearest 'Work Bench' facility. We are planning to use, IBT school facility, our alumni's enterprises, facility at network institute etc. as a 'Work Bench'. We have also made preparation at Pabal campus to observe all necessary health advisories like daily monitoring of health parameters, social distancing at work & hostel, use of mask etc.

We are thankful to ASHA for Education, Eaton Foundation, SPA Education foundation and individual donors for their continuous support & encouragement for DBRT program.

**विज्ञान आश्रमाचा ब्राह्मण तंत्रज्ञान पदविका अभ्यासक्रम**  
उद्योजक वनस्पत्यासाठी, माताक वनस्पत्यासाठी

कोरोना परिस्थितीत ... आधुनिक तंत्रज्ञानाच्या सहाय्याने 'पर्यटन केंद्री शिक्षण' जाल्या रजमात			<b>आमचा अभिमान</b>
कोरोना परिस्थितीत यशी राहून ऑनलाईन पध्दात	घराजवळील वर्क बेंच मध्ये प्रात्यक्षिक करायची सोय / मुभा	विज्ञान आश्रमात निवासी आधुनिक कौशल्य शिक्षण	 श्री अनाद नारासिमा. स. दाबिही, जि. पुणे माझा आधुनिक पद्धतीचा वापर करून प्रेती हा स्वच्छताय दडिहवी वा नवात करत आहे. श्री विज्ञान आश्रमाच्या DBRT चा २०१२-१३ चा विद्यार्थी आहे.
किमान पात्रता: १० वी / १२ वी पास / भापास			
अधिवाचिकी, फॅब्रिकेशन, इलेक्ट्रिकल्स, स्टाप फटार निर्मिती, इलेक्ट्रॉनिक्स, संगणक, वायवजन, आधुनिक प्रेती, पीसी/लॅपटॉप परंपालन (पोल्टी, प्रेजी पालन, डे.अरी) इ. बहुविध कौशल्यवाचे प्रशिक्षण			
संपर्क: ९८३०००९०२९ / ९८३०००९०३० / ९८३०००९०२९ / ९८३०००९०१६, विज्ञान आश्रम, पावळ, जि. पुणे www.vigyanashram.com / vapabal@gmail.com			

**H] DBRT & Campus update:** Students completed remaining part of their course schedule while attending online sessions and completing assignments. We have conducted online examination using 'google classroom' on 15<sup>th</sup> May. Now we are guiding them for apprenticeship opportunities.

Please watch video of DBRT 2019-20 : [DBRT Batch 2019 -20 Video](#)

With easing out of lockdown & completion of course work, five students returning back to their native villages. There are still eight students are on campus and working on different projects.

Following are some of the highlighted of DBRT activities on campus -

- Suraj fabricated, a small goods carrying trolley for motor-bike. He got fabrication design from Youtube video. Such trollies are required by farmers for carrying fodder, milk cans etc in rural short distance transport. Total cost of project Rs.6879.00 for fabricating this trolley.
- Akash completed plumbing work of grey water system (ladies' hostel). He had installed water circulation pump & air blower. He also fixed electrical panel box and made system functional for water recycling. Total cost of plumbing & electrical fitting was Rs.10949/-
- Subham, Vedant harvested 1 ton of dryer bajara fodder and stacked after proper bundling & drying. Tejas & Baman prepared & planted 17 moringa sampling near polyhouse while fixing drip irrigation system.
- DIC-DBRT-Fab team work together on following projects :
  - Installing gate at entrance of Vigyan Ashram.
  - Housekeeping of Scrap yard
  - Out door Seating and basin arrangement for food lab



Installing gate at entrance

**I] Wikipedia publication update :** Wiki team completed following task this month -

- Wrote following Technical articles- Aquaponics farming ([अँकापोनिक्स](#)), Tissue culture ([रूती संवर्धन](#)), Water footprint([पाणी पदभार](#)), Pyrolysis ([औष्णिक विघटन](#)), Solar radiation ([सौर औष्णिक ऊर्जा](#)), World Health organization ([विश्व स्वास्थ्य संस्था](#))
- Wiki-books – Publishing of thirty 'एकनाथ अभंग Eknath Abhang' was done by Dixit Aaji (so far she has published 230 Abhang), OCR making work was completed for 'Selected articles of Dr.S.S.Kalbag' and Ranade dictionary Part-2, Translation of आमची संस्कृती, प्रश्नोत्तरनामा, बालमित्र भाग १ completed, Scanning of Ranade dictionary Volume 2 (50 Pages Completed)

- A virtual training session was conducted for Dr.D.Y.Patil Science & Computer Science college (Akurdi Pune) in collaboration with Centre for Indian Knowledge System (CIKS) on 29<sup>th</sup> May. Training attended by 34 participants to learn basic skills of scanning, OCR making & Wiki-publication.

#### J] Other tit-bit –

i) VA team attended training on 'Data mapping & data-based intervention' organized by DST-SEED division in collaboration with National Resource Data Management System (NRDMS) on 8th May 2020. We have experimented with QGIS and tried these tools for recording farmers field trials and IBT school data.

ii) As a part of support to frontline COVID19 fighters, 200 face-shield were supplied to Maharashtra Police Training Academy (Nashik).

iii) We have shifted all our classes on Microsoft Team. Microsoft provided free licensing of 'Microsoft Team' a virtual meeting platform to us under 'non-profit licensing' category. It will help us in hosting online meeting, training with 250 participants & multi-hosting facility.

iv) Ranajeet gave a facebook live session on 'Business opportunities in rural areas' for Pune24taas new channel on 14<sup>th</sup> May.

v) Vigyan ashram management committee meeting was held on 24<sup>th</sup> May. Response to COVID19 Pandemic during lockdown, planning for coming academic year was discussed and review of research projects were taken & decision made for further action. A virtual meeting, was held using video conferencing platform.

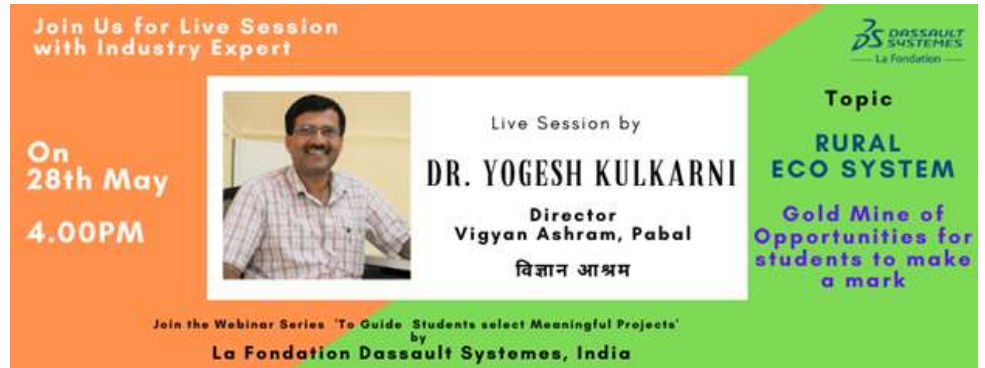
v) Yogesh gave a talk on 'Rural Eco System: Goldmines of opportunities for students to make a mark' on 28<sup>th</sup> May. It was organised by La foundation (Dassault system). This talk was attended by more than 800 students.

vi) Sonal and Amol gave a face book live session on 30<sup>th</sup> May. The session was on their journey as "पदवीधर - अभियंता ते संशोधक". It was part of promotion activity for new course 'Designing a Solution'

vii) Vigyan Ashram team and their families were given a dose of homeopathy medicine 'Arsenic Album' on 29<sup>th</sup>, 30<sup>th</sup>, 31<sup>st</sup> of May. Doses were given to 70 people, they were obtained from Dhondu Mama Sathe Homeopathy Medical College,Pune. It is a part of their research for fighting COVID.

viii) Weather record – Rainfall of the month -17.06 mm (Total – 974.36mm) ,Max temp-44.00 °C, Min Temp – 21.00 °C , Humidity – 60 % , Water height in well – 7.85 Mtr.

ix) Energy consumption record- Electricity unit – III Phase -1420 units , I Phase Export- 381 units, Import- 866 units. DG used – NA Hrs. Quality of power : Number of interruptions :64, Normal voltage : 86.67% No supply : 3.33 %, low voltage : 10.00 %, No data: 0%



x) Animal Husbandry section update – Milk production – 836.1 Kg , Goat- Weight gain (male bucks)- 14.00 Kg (FCR – NA), New kids born - 0 , Poultry Egg production – 181.41 dozens(FCR – 1.56)

xi) Biogas consumption – Dung used- 553 Kg, Gas produced- 22.13 M<sup>3</sup>, Two wheeler record– NA

xii) Visitors : [www.dsttara.org](http://www.dsttara.org) – 1349 (New visitor –1124 Repeated- 225) , [www.vigyanashram.com](http://www.vigyanashram.com) –989 (New visitor – 823 Repeated-166)

**Data Report:**

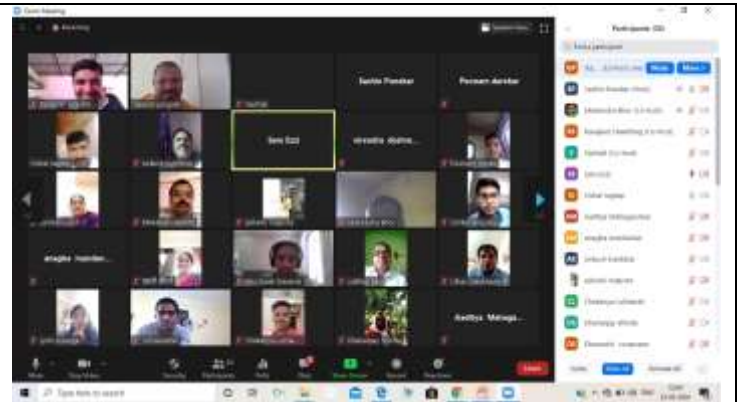
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**Photo Gallery:**



DBRT Exam



Food EDP course



Plumbing @ Grey water recycling system



Organized Scrap Yard

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