

# Vigyan Ashram Status Report

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## A] युवा उद्योजक पुरस्कार (Young Entrepreneur Award)

On 30<sup>th</sup> July, young alumni entrepreneur award was given to Mr.Akshay Gargote. It was given at the hand of our senior alumni entrepreneur Mr.Ghumatkar. 30<sup>th</sup> July was 18<sup>th</sup> anniversary of Vigyan ashram's founder Dr.S.S.Kalbag. This award was given in his memory.

### Young Entrepreneur 2021 award :



Mr.Akshay Gargote,  
At.Post.Dahiwadi,  
Tal.Shirur, Dist.Pune. (DBRT  
batch 2011-12)

Akshay is doing farming in  
his village. He started  
poultry after completing  
DBRT and planted  
pomegranate trees. He is

famous for producing and supplying good quality of  
onion seedlings. He also runs a goat farm with 30  
goats. His annual turnover from all agri activities is  
Rs.15 lacs.

Akshay is Hero of farming in his village. We have  
felicitated him for his achievement.

### Chief Guest of 30<sup>th</sup> July program :



Mr.Sunil Ghumatkar,  
At.Post.Kanhur Pathar,  
Tal.Parner, Dist.Ahmednagar  
(Batch 1995-96)

After completing course at  
Vigyan Ashram. He did  
apprenticeship in Vigyan  
Ashram for 1 year.

Mr.Ghumatkar has started  
fabrication workshop in his village in 1998. He is  
undertaking fabrication of agri tools. He is known for  
fabrication of bull driven agri equipment. He has  
shared with us his memory of Dr.Kalbag and his days  
at ashram. We are proud of his achievement.

## B] Open House Exhibition:

Every year, we are organizing Open House  
Exhibition of all Vigyan Ashram's projects on the  
occasion of anniversary of Dr.Kalbag on 30<sup>th</sup> July.  
Due to COVID restrictions, we have organized  
online exhibition. All new technologies, projects  
are presented in the form of virtual tour. It is  
available online on <https://vigyanashram.online/> .  
So far 3669 visitors had visited the exhibition.  
We have also conducted Facebook live video tour  
of different dept on 30<sup>th</sup> July.

We are thankful to volunteers of Eaton Foundation for helping us in designing virtual platform for exhibition &  
posters on various technologies. We are also thankful to all CSR funding partners, individual donors &  
stakeholder in joining hands with us for serving community.



## C] DBRT 2020-21 Graduation:

DBRT 2020-21 formally completed their course on 30<sup>th</sup> July. It was challenging year due to pandemic. It also gave us an opportunities to explore new ways of learning. Online education, using distributed work benches for practical's, DIY methodologies, use of software tools for evaluations and assignment submission, person centric learning schedule and examination are some of the new adaptations in our learning methodology. Total 51 students completed the course. They had completed their practical's at Naramadalaya(MP), Yusuf Meher Ali center, Barefoot college and on Vigyan ashram campus.

We have students from 6 states in this batch. A virtual graduation ceremony of Diploma in Basic Rural Technology (DBRT) Batch 2020-21 was held on 30<sup>th</sup> July. Ms Jyoti Gawade (Asha for Education), Ms Zaineb(Eaton foundation), Ms Bharati Thakunr (Narmadalaya), Mr.Chandramohan Reddy (YMC) and MR.Ashok Kalbag (VA) were guest for the program. Our wishes with passing out batch for their future. Please watch learning journey of DBRT 2020-21 batch @ [DBRT Batch 20-21](#)

## D] Solar powered electrical rikshaw:

Vigyan ashram received two E-rikshaw vehicles on 6<sup>th</sup> July under 'Living Lab' project of Centre for Technology Alternatives for Rural Area (CTARA , IIT Mumbai) and Dept. of Energy Science and Engineering in collaboration with Technical University Munich.

'Living Lab' project aims to study of practical application of 'renewable energy' in rural setting. We got two units 'Kinetic Green-Safar' make E-rikshaw (48 V lead acid battery operated with 4+1 seating capacity) under the project. These rikshaws will charged with existing solar on grid electricity. We will collect all necessary technical data.

At present we are using these vehicles for visiting local public health centre (PHC), COVID vaccination pick-drop, study tours etc. These vehicles are fitted with GPS and data loggers. We will be maintaining data on power consumption, load travelled, repair-maintenance. After getting sufficient experience of use of e-Rikshaw, we are planning to start training program on maintenance, repair services for e-vehicles.



## E] Design Innovation Centre (DIC) :

- Prathmesh successfully tested 'Oxykit' oxygen concentrator by replacing sodium to lithium-based zeolite. At present its operating @ 89 – 90 % concentration level with flow of 3-5 lpm. Flow rate can be increased to 10 – 15 lpm by replacing present 1 HP air compressor to 2.5 HP & zeolite sieve of 1.5 Kg. We are waiting for approval of Oxygen concentrator similar to our design made by 'Maker Asylum' from certification authority. We are now confident to provide training on maintenance of oxygen concentrator to our students. For more details, please visit [Oxygen Concentrator | Vigyan Ashram](#)



Oxygen concentrator made @ ashram

- **Voice command based Automatic Gate Operating System @ Vigyan Ashram:** Nachiket & Prathmesh



successfully implemented 'google assistance voice command' based Gate operating system for ashram campus. Now gate can be operated by voice command. It has 0.5 hp motor with reverse-forward mechanism controlled by voice command using 'ESP8266 NodeMCU' microchip & 4 relay channel based controller. The gate can be controlled from any distance with 'wifi'

connectivity. A standby manual control is given in case of power failure situations. Details can be found - [Assignment 1: Automatic Gate Control System | DESIGN INNOVATION CENTER \(vigyanashram.blog\)](#)

- **LPG bases incinerator:** Chaitanya & Vrushabh successfully fabricated & installed, LPG combustion based 'sanitary pad' incinerator @ ladies' hostel campus. It can be loaded with 5 pads per 6 min cycle with fuel consumption of 15 gm LPG per cycle. Per cycle burning cost of new incinerator is Rs.1.95 instead of Rs.7.5 per cycle for electricity-based incinerator. Presently we are conducting live trials @ ladies hostel, user feedback & breakdown analysis. Further details can be found on - [LPG Based Incinerator | Vigyan Ashram](#)
- Sonal started 'processed azolla' fish feeding trial for 'climbing perch' (koi) fish. Trial setup is made using IBC tanks for comparative study. Trial is based on earlier small scale (100 lit) experiment conducted during April to July 2021.





## Hero of the month:

**Mr. Kunal Asawre:** Kunal has started his fabrication business in the name of 'Mahalaxmi Fabrication and Enterprises' at Pargaon Shigwe, Ambegaon, Pune. He is offering his services mainly in Onion storage, Shop Shutter and shed building, etc. He is a student of DBRT (Batch 2017-18) course. He is getting hand-holding support through EDP program.



Sunil @ work



Kunal @ work

**Mr. Sunil Shivsharn:** Sunil has started his fabrication business in the name of 'Dhanesh Fabrication & welding Work' at Walsang, Jath, Sangali. He is a student of DBRT (Batch 2018-19) course. He is getting hand-holding support through EDP program.

## HJ DBRT campus update:

Students from Yusuf Meharally Centre (Panvel) joined campus from 10<sup>th</sup> to 15<sup>th</sup> July and completed their missing practical's. Following are highlights of the month:

**Agriculture & Animal Husbandry:** Students harvested vegetables like beans (26 kg), Okra (10 kg), cabbage (12 units), cauliflower (10 units), chili (15 kg), shepu (13 units) apart from 725 lit milk & 76 dozens of eggs.

**Energy & Environment section:** Students did wiring for azolla based fish farming trial setup. They also learnt installation & repair of ceiling fan while doing troubleshoot in boy's hostel. Students also performed overhauling of diesel generator & lead acid battery maintenance. They earned community service of Rs.10640/- while performing these tasks.

**Workshop section:** Students participated in laying out of foundation & footing work of new boys hostel recreation center. Students also fabricated a ferro-cement lid for drainage chamber and learnt basics of lathe machine & plasma cutter operations.



DBRT : Conducting Survey

## IJ IBT Program :

- LTI volunteers conducted online awareness session on topic Cyber Security, COVID 19 (Social distancing & Aarogyasetu Application) on 10<sup>th</sup> July. Total 45 volunteers participated in the session. Total 25 IBT instructors and 174 students attended the sessions and got benefited.
- IBT school coordinator's training was conducted on 27<sup>th</sup> & 28<sup>th</sup> July at DIY Lab, Pune. Total 15 school coordinators participated to plan IBT program activities in the Covid situation, discussed examination patterns, funding agencies reporting requirement etc. Coordinators also participated in the brainstorming session for preparation of 'Technovation-2022'. Shri. Wasim Shaikh (LTI CSR Manager, Pune) interacted with coordinators to understand challenges & admin issues of schools in implementation of IBT program.

- A formal MOU is signed with UNICEF (Uttar Pradesh) for implementation of IBT program in 15 districts of Uttar Pradesh. Program aims in training of 'out-of-students' in livelihood-based opportunities in 60 schools of Uttar Pradesh.

**Student activity highlights:**

- IBT students @ Chikhali (Pune) schools fabricated a 'rawa roaster' with workshop instructor. They used scrap material like 35 Watt motor, scraped copper vessel of heater, gas connection, speed controller etc. It has costed them Rs.15000/- with a roasting capacity of 3-4 kg / batch.
- Students of home and health section @ Amboli school prepared 1kg Lemon pickle.
- At Katraj school, students prepared 10 lit cow urine based 'neem ark' as organic bio-pesticide. In workshop girl student repaired 'classroom benches' while practicing metal fabrication skills. They repaired 27 benches while doing metal cutting, welding, grinding, painting etc works.
- Energy and environment section students from Chinchwad School have repaired an electric iron.



**Distribution of 'Happiness Kit' @ IBT Schools :** LTI has sponsored 'happiness kit' to 365 students of 15 IBT schools. A kit containing School bag, Sanitizer bottle, Face mask, Thermometer, Note books, Pens, Pencil and Eraser is distributed in the month. A small function was organized at Asade school (29<sup>th</sup> July) and Katraj school (31<sup>st</sup> July) in presence of Mr.Wasim Shaikh, CSR Manager of LTI.

**J] Fab Lab and DIY lab updates:**

i) IDEA Lab training workshop @ COEP Pune: Suhas and Rahul conducted sessions at 'Faculty development Program' for IDEA Lab organized by Govt. College of Engineering, Pune. They were in COEP from 26<sup>th</sup> July -30<sup>th</sup> July conducting sessions on electronics,2D -3D design and laser cutting operations. This was a 'Faculty training program' hosted by COEP with participation from 49 engineering faculties starting Idea labs. Dr.Yogesh Kulkarni delivered a talk on Fab Labs and social innovation on 29<sup>th</sup> July.



ii) Training session ATL instructor @ Chhattisgarh:

Priyanka & Rahul conducted 5 sessions for ATL instructors through YouTube live with 5503 cumulative viewers. Details of sessions area as follow-

Date	Name of session	YouTube link
1 <sup>st</sup> July	सिरिंज का इस्तेमाल करके हायड्रोलिक का विज्ञान जाने	<a href="https://youtu.be/gaIax6DxGRA">https://youtu.be/gaIax6DxGRA</a>
8 <sup>th</sup> July	डिजिटल साक्षरता!	<a href="https://youtu.be/kJnwbXbYwLM">https://youtu.be/kJnwbXbYwLM</a>
15 <sup>th</sup> July	"चलो बने युवा अभियंता" के सभी सेशन को पुनः दोहराए	<a href="https://youtu.be/jCXGOhuxeYs">https://youtu.be/jCXGOhuxeYs</a>
22 <sup>nd</sup> July	कॉम्प्युटर का इस्तेमाल करके गेम बनाना सीखे	<a href="https://youtu.be/41pn3Szkc9Y">https://youtu.be/41pn3Szkc9Y</a>
30 <sup>th</sup> July	अटल टिकरिंग लैब का परिचय	<a href="https://youtu.be/skyuvT-ROAQ">https://youtu.be/skyuvT-ROAQ</a>

iii) Pune Lab : We have restarted operation of the DIY Lab operation. We are calling students individually to the lab.

iv) Fab Camp was organized on 18<sup>th</sup> and 19<sup>th</sup> July at Pabal. It was attended by 7 students.

### K] Other tit-bit:

- i) Rahul Kanojiya (Fab Lab), Harshal Shimpi (DIY Lab) and Prashant Mandawdhare (IBT) joined VA team this month.
- ii) SI Group India Pvt Ltd donated 10 units of Industrial Bulk Container (IBC) tanks to us for experiment of fish farming & water storage for plantation. We are thankful for them for this in-kind donation.
- iii) Mrs. Bharati Thakur (Narmadalaya) and volunteers of Narmadalaya visited Pabal campus on 10<sup>th</sup> July.
- iv) Yogesh attended Education Task force meeting of State Planning commission of Chattisgarh state on 30<sup>th</sup> July.
- v) Ranajeet visited 'Kiya aquaponics farm, Murbad' on 13<sup>th</sup> July to provide technical guidance & consultancy support.
- vi) Donation: We are thankful to Mr. Chetan Kadam & Mrs. Komal Raut- Kadam, Mr. Atul Kulkarni for their donation to Vigyan Ashram.
- vii) With onset of monsoon, we have started 'tree plantation drive' on barrel land near campus. We 500 sampling from Devarai foundation. Due to lower rainfall & drought like conditions we have planted around 100 sampling while remaining shifted to nursery.
- viii) Weather record – Rainfall of the month -61.05 mm (Total –214.05 mm) , Max temp-39.00 °C, Min Temp – 21.00 °C , Humidity – 68% , Water height in well –6.80 Mtr.
- ix) Energy consumption record- Electricity unit – III Phase -1305 units , I Phase Export-1050 units, Import- 156 units. DG used – 01.45 Hrs. Quality of power : Number of interruption- 58 , Normal voltage : 80.96% , No supply : 12.32% , low voltage : 6.72 % , No data: 0 %
- x) Animal Husbandry section update – Milk production – 808.5 Kg , Poultry Egg production – 79.66 dozens (FCR – 2.72/ dozen)
- xi) Biogas consumption – Dung used-828 Kg, Gas produced-33.12 M<sup>3</sup>
- xii) Online visitors: www.dstara.org –840 (New visitor –744 Repeated-96) , www.vigyanashram.com – 1223 (New visitor-963 Repeated- 260)



Team Vigyan Ashram on 30<sup>th</sup> July

### L] Data Report:

<https://docs.google.com/spreadsheets/d/138Jl1pJQnwao-QkSgPDIs5ZwVDGpZzd/edit?usp=sharing&oid=101141840668207826730&rtpof=true&sd=true>

**Photo Gallery:**



Prepared plot for agriculture for fodder cultivation



Composting of Agro residue : Farmers meeting @ Vadagaon Pir conducted by Sonal



Experiment setup for Azolla feed to fish trials



Boys recreation construction status



DBRT : Completing missing practicals in progress



Fab Camp

For Regular update: [www.facebook.com/vigyan.ashram.pabal](https://www.facebook.com/vigyan.ashram.pabal) ; [www.vigyanashram.blog](http://www.vigyanashram.blog)  
[www.vigyanashram.com](http://www.vigyanashram.com)

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