

Vigyan Ashram Status Report

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- **IBT School Instructors training program at DIY Lab**
- **Production of skills training videos with the help of EMRC**

A] Welcome to DBRT batch 2021-22 :

Diploma in Basic Rural Technology (DBRT) program's new academic year started from 1st of August. Due to COVID advisory, we are admitting new students in a small batch of 8-10 students per week. In the month of August, 35 students joined Pabal campus including 4 girls. Total 52 students will join course by the end of September. We have students from Maharashtra, Telangana and Odisha state in this batch.

Strict COVID health protocols, quarantine period of 14 days for incoming students, daily monitoring of body temperature, practical's in small groups are in place for safety of students.

With the arrival new students on campus, atmosphere on campus is charged and new energy is back on campus. Following are some of the highlighted campus activities-

Celebration of Independence Day!

A 75th Independence Day was celebrated with enthusiasm. After flag hosting, newly joined DBRT & DIC students & staff organized a very well drafted 'cultural program'. Program was organized on open ground due to COVID safety protocol. Cultural program includes charging performances like dance, short dramas, playing musical instruments and singing songs.

Rakshabandhan & Dahi-Handi celebration!

Team of DIC-DBRT students celebrated Rakshabandhan & Dhahi-handi. They made Rakhi's from recycled cotton waste in sewing lab.

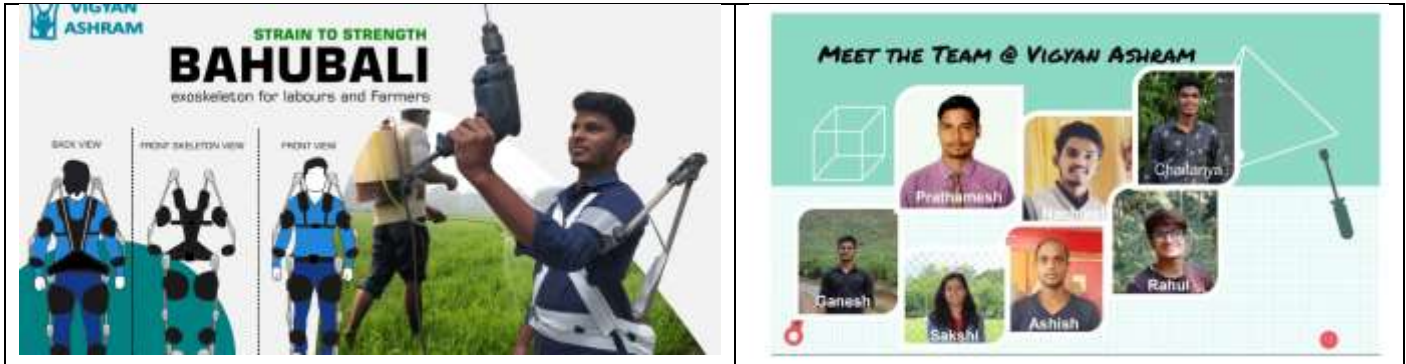


Hope ! उम्मीद ! आशा !



B] FAB-16 : Fab Care Challenge

Vigyan Ashram team participated in Fab Care challenge during Fab16 international conference. Team at Vigyan Ashram worked on challenge to develop Exoskeleton to support farmers, labours in their daily tasks like spraying, grass cutting, overhead drilling etc. Team Vigyan Ashram won the award. Team leader Prathamesh will get a chance to do internship with 'Matrix @ Dusseldorf I Germany <https://matrix-gmbh.de/en/>
More details : <http://vadic.vigyanashram.blog/2021/01/18/existing-exoskeleton-and-mechanisms/>



C] IBT school instructor training:

The IBT instructor training program was held at DIY Lab, JPNC Pune during 17th August to 4th September for L&T infotech Ltd supported schools. Trainees were divided into section-wise small groups. Total 41 instructors from Engineering (17th to 21st August), Energy & Environment (24th to 28th August) and Home & Health section (31st August to 4th September) from 15 schools participated in the training.

This is the first off-line training of IBT instructors after pandemic. New project activities and online-offline training methodologies were discussed during training.



D] Technology Based Entrepreneurship Development Program:

Five days hands-on training on 'Basics of hydroponic & aquaponics farming' was conducted between 25th to 29th August. Training was attended by 13 aspiring entrepreneurs to learn basics of hydroponics farming practices like design parameters, fertigation & water quality management, deficiency correction etc. They worked in analytical lab & built hydroponics prototype as their learning activity. We have taken a four-room house on rent to accommodate trainees for short term EDP program.

Ganesh Pingle visited EDP beneficiary students Mr.Sachin Gorade (Gosasi), Mr.Pratik Daptare (Pabal), Akshay Dhumal (Khadawadi), Machindra Dhumal & Baban Padwal (Khairnagar), Shrirang Dherange & Anil Chaskar (Mhalunge) to provide on-field consultancy support.

Hero of the month:

Mr. Tushar Shinde: Tushar has started his fabrication business in the name of 'Mauli Agro Industries' at Kawthe Yamai, Shirur, Pune. He is mainly providing fabrication and repair of agriculture tools. He is a student of short-term Fabrication course. He is getting hand-holding support through EDP program.

Mr. Vikas Thite: Vikas has started his fabrication business in the name of 'Bhairavnath Agro Engineering & Fabrication Work' at Savidane, Shirur, Pune. He is manufacturing and selling agriculture tools such Tractor Trolley, Plough, Padbhar, etc. He is a student of DBRT course. He is getting hand-holding support through EDP program.



Vilas Thite (DBRT 20-21) inauguration on 11 Aug 2021



Tushar Shinde at his Mauli Agro Industries.

E] Design Innovation Centre (DIC) & Fab Academy update:

- International Solar Innovation Council (ISIC) sanctioned 'solar powered grey water' recycling project for Dingrajwadi village near Wagholi (Pune). Project aim to recycle grey water collected in common water-well by using solar powered air bubbling and Grey water system developed by Vigyan Ashram.
- Prathmesh completed prototype of Proportional-Integral-Device (PID) based temperature controller for small scale egg incubator. He had developed it against order from M/S Future Innovation system.
- Hrishikesh developed & implemented Standard Operation Procedures (SOP) for testing nitrogen using Kjeldahl (protein) method, potassium estimate by flame photometer method and Calcium – magnesium estimation by EDTA method in soil analysis lab.
- Kedar prepared three soil Organic Carbon (OC) testing for Cleanergy Tech Solution Pvt Ltd. He also completed cow dung-based biogas slurry nutrient analysis and installed composting beds at organic farmer at Fursungi village.
- Sonal prepared 23-ton compost at Vadgaon-peer village for 8 selected farmers. This village has adopted agro-waste composting on large scale after observing impact of composting at fellow farmers



Mr. Ramesh Adak. Mr.Ramesh has got very good results for his cabbage crop with application 800 Kg compost.

- Nachiket implemented 'face recognition' based attendance system at campus. He is presently testing his system with 50 students and debugging it for smooth operation.
- Prasad completed digital design of the Grain Disinfection Unit using Solidworks CAD software. This assembly contains 747 components. Its rendering is completed by using visualizer. Details are available on (<http://vadic.vigyanashram.blog/grain-disinfection-unit-3/>)



Face Recognition based attendance system

G] Pabal campus update:

DBRT students were quick to adopt to new learning environment, campus activities and COVID protocols. Following are the highlights of their learning activities -

Engineering section: Students fabricated 5 units on window grills for new recreation center. They earned community service of Rs. 17765/- including labor charges of Rs.2405 doing this work. Students also learnt basics of RCC construction & brick laying skills through hands-on activities. Fabrication of Curd maker was completed.



Home & Health section: In H & H section students learnt basics of baking during August month. They prepared bread, toast, cookies and cakes while learning these skills. They processed 35 Kg bread flour (maida) with sale of Rs.3115/- . Students also learnt making of 'panner' while processing 6.5 lit of milk as an experimental trial.

Energy & Environment section: Students of electrical department learn basic of electrical fittings while repairing plug points in boys hostel. They also installed new ceiling fan in DIC hostel and DOL starter at 'Thitewadi' hostel block. Students generated community service of Rs.13206/- while doing these works.



Installation of Goat measurement unit

Agriculture & Animal husbandry section:

Students of agriculture section planted spinach crop on NFT based hydroponics system. They learnt seed treatment, nursery management and soil analysis-

based fertilizer dosing through these activities. Students also prepared silage and leant deworming of goat kids while doing regular feeding & record keeping work in animal husbandry section.

Distance Learning Resource Library :

We are making library of skills training videos. They will be 5 min short videos in Hindi language explaining important points, principles about different vocational skills. We are guided by Prof Sahastrabudde of EMRC (SPPU). Prasad & Bhakti completed video shooting for Fibre Reinforced Plastic (FRP) training module on 31st August at Starlink FRP (Wagholi) with the help and guidance of team from Educational Multimedia Research Center (EMRC), SPPU, Pune.



VA and EMRC team

HJ IBT Maharashtra & Uttar-Pradesh updates:

IBT Maharashtra:

- Online sessions: Three online sessions were conducted with cumulative participation of 471 student / instructor from 20+ IBT schools.
- LTI volunteers conducted session on 'Global warming and its effect' and 'Awareness on social distancing under COVID pandemic' on 28th August for IBT students. Total 40 LTI volunteers were participated in this awareness drive benefiting 359 participants.

Student activity highlights:

- Students of Chikhali school, organized 'health check-up camp' on 15th August Independence Day in the school. Students assisted local doctor to check various parameters like body BMI, blood pressure, heart rate etc. for 75 participating beneficiaries.
- IBT agriculture section students in Dhamari school, conducted tree plantation activity in their campus. They planted 40 fruit trees like Amla, Mango, Chiku etc plants.
- Students from Katraj School tested 5 water sample for testing its potability. They collected water from nearby wells & tested with H₂S. Out of 5, 3 sample found not-fit for drinking. The results have been communicated to the respective families and asked to take proper filtering measures. Approx. 45 families and 200 + people benefited through this activity.
- In-home and health section of Chikhali School, students made Seed Rakhi. It contains seeds of different plant. This Rakhi if thrown into the farm land, will grow into new plants from those seeds. This rakhi is nature friendly.



- As part of 'Fab School' project, Pooja conducted workshop on 'papertronic' @ Mukhai School. 10 students from 9th class participated in workshop to learn basic of electronics by making simple gadgets from waste paper.

IBT in Uttar Pradesh

- Labour Dept, Uttar Pradesh and Unicef sanctioned project to start IBT program in 60 schools of 15 district in Uttar Pradesh (UP). They want to bring out of school youth to main stream. Sachin, Sharad and Ganesh visited UP from 22nd to 31st August. They did a baseline study and completed selection of schools. They also interacted with Govt and Unicef officials, school principals and gave them overview of the program. We will have three representatives in UP under this project.



Visit to school in Bareilly

IJ DIY lab & ATL (Chhattisgarh) updates:

- Digital Rakhi making workshop was conducted on 21st Aug with 4 students.
- Four students of DIY lab took admission to e-Yantra robotics competition organized by IIT,Powai.
- We have started regular operations of DIY Lab. Maintenance of Laser cutting machine and 3D printer was done. We have started promotion of DIY lab programs.
- A training session on 'How to start ATL Lab' was conducted for schools in Chattisgarh on 21st Aug. It was organised by Samagra Shiksha of Chattisgarh.
- We have prepared papertronics kits and send it to 30 schools in CG.
- 15 DIY activity videos were prepared and posted in CG education resources website.



vii) Following training session were conducted for ATL instructor @ Chhattisgarh labs:

Date	Session topic	YouTube link
3 rd August	मोबाइल एक लैब टूल है	https://youtu.be/wT7WqL0inuI
6 th August	परियोजना प्रबंधन	https://youtu.be/7wta8v_Bq2s
20 th August	डिज़ाईन थिंकिंग	https://youtu.be/V_xjpkCaik
21 st August	How to start Atal Tinkering Lab?	https://youtu.be/QJTUgJj8mZc
27 th August	कार्डबोर्ड और पाइप की मदद से लॅम्प बनाना सीखे।	https://youtu.be/4mxk9x7oaLs

J] Other tit-bit:

- i) Wikisource - Scanning Workshop for seven volunteers of Lek Ladki Abhiyan was conducted at Vigyan Ashram on 6th Aug. Training was sponsored by CIS-A2K.
- ii) Dr.Yogesh Kulkarni received 'Samaj Shikshak award' from Matrumandir Shikshan Sanstha on 4th Aug 2021.



Wikipedia Training at Pabal

- iii) Arun Dixit visited @ Sangamner urban waste processing centre to provide technical consultancy support to greeny-the-great team.
- iv) Yogesh gave a talk on Fab Lab and Social connect at Idea Lab training session organised by AICTE and AKGEC, New Delhi on 25th Aug 2021. He also visited DST, New Delhi on 24th Aug.
- v) Sanket Valse resigned as DIC- Design Engineer for better prospects. We wish him best luck for future endeavours. Akash Dhumal (Agriculture instructor), Sharad Jadhav (IBT UP) and Prashant (IBT UP) joined VA team in August month.



COVID vaccination of all staff of Vigyan Ashram has been completed with the help of Eton foundation. Team @ Eton premises for vaccination

- vi) Donations: We are thankful to Mr. Suhas Belapurkar, Mrs. Deepti, Mrs. Medha Vidyadhar Bhide and Mr. Atul Kulkarni for their financial support to Vigyan Ashram.

- vii) Weather record – **Rainfall of the month -29.87 mm (Total -243.92 mm) We may face drought this year.** Max temp-38.00 °C, Min Temp -20.00 °C, Humidity – 77%, Water height in well-7.20 Mtr.
- viii) Energy consumption record- Electricity unit – III Phase -1163 units, I Phase Export-1287 units, Import- 110 units. DG used – 02.35 Hrs. Quality of power : Number of interruption- 39, Normal voltage : 87.57%, No supply :09.60%, low voltage :0%, No supply: 2.83 %
- ix) Animal Husbandry section update – Milk production – 641.6 Kg
- x) Biogas consumption – Dung used-775 Kg, Gas produced-29.04 M³
- xi) Online visitors: www.dsttara.org –898(New visitor-799 Repeated- 99), www.vigyanashram.com – 1114(New visitor-904 Repeated- 210)

K] Data Report: <https://docs.google.com/spreadsheets/d/1f8NCWd4ftCrFe83WZg3SsQzC-0HBFsAL/edit?usp=sharing&oid=101141840668207826730&rtpof=true&sd=true>

(Work of VA is supported by Asha for Education, Praj foundation, EATON Foundation, L & T infotech, SPA Education Foundation, Megger (I) Pvt Ltd, SELCO India foundation, INDUSA Endowment, Govt of Chhattisgarh, Savitribai Phule Pune University, Suzlon foundation, Dept of Science & Technology, and many individuals and foundations)

Photo Gallery:



Agri waste composting at Wadgaon peer



Experiment @ Fursungi farmer on biogas slurry as culture



Status of Boys hostel recreation room



Purchased first Water tank in Aug .. Deficit in rainfall so far



Yogesh @ AKGEC, New Delhi



Hydroponics training @ Vigyan Ashram

For Regular update:
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www.vigyanashram.blog