

Vigyan Ashram Status Report

Volume 36 Issue 12

Dec 2018

In this issue

- Vigyan Ashram Hostels got DC Fan's
- Bajaj Auto CSR support for agriculture dept
- New video's on Vigyan ashram's You Tube channel.
- Vigyan Ashram establishes Institution Innovation Council (IIC)

A] DC Fan's for Student Hostels:

i) Vigyan Ashram hostels and staff quarters were not having Fan's so far! With increasing temperature during summer, we have decided to install electric Fan's in hostels. To reduce electricity expenses, we have purchased DC Fan's. Thirty DC Fans of Gorilla Company are installed in Boys and Girls hostels. These Fans consumes 35 Watts (Against 75W for AC Fan). DBRT students installed these Fan's as a part of their practical work. We are also planning to go for solar net metering. This will reduce our energy consumption. We have applied for 7 KW Single phase loads from MSEB for installing solar net metering system.



ii) We have also purchased 10 DC pedestal fans from REMI Company. These Fans were assembled with the help of DBRT students. These fans operate on 22 Watts 12 V supply. These fans can directly work on solar panel of 30watts 12 V.

We are making a converter circuit from 240 V AC to 12 V DC.

B] CCTV installation: We have installed 5 new CCTV cameras on new hostel and other places in ashram. DBRT students got training from CCTV technician on 6th DEC. They learned about CCTV camera, connections and electronic setup etc. They installed CCTVs in 4 days. With this installation, number of CCTV camera's on campus are 17.



CCTV installation

C] Study Tour for DBRT and DIC students :

- Ten DIC students went on study tour to Nasik on 7th and 8th Dec. They visited Sahyadri farms, Waste recycling and pyrolysis based plastic recycling unit of Nasik Municipal Corporation, Gargoti museum of rocks. They also made trek to Bramhagiri and Saptshrugni temple.

- DBRT students (26 students and 3 teachers) visited Kisan Exhibition on 14th Dec.

- Further 30 students did Bhorgiri-Bhimashankar trek on 29th and 30th Dec.



D] Upgradation of Agriculture facilities : Bajaj Auto CSR support sanctioned our proposal to upgrade agriculture training facilities. It includes pipeline to bring water from Thitewadi dam to ashram, establishing tissue culture lab, modernization of polyhouse and grey water recycling facility on campus. Total cost of proposal is Rs.40 lacs and it will give boost to agricultural training from next monsoon.

E] DBRT News :

i) New Hostel completion:

- DBRT students fabricated twelve cots for new hostels.
- Students did electrical wiring and finishing of new hostel.
- Doors at new hostel entrance were fabricated, coloured by Kamlesh and Swapnil.
- Sahil and Kaustubh did plastering of staircase near new hostel and made arrangement for tree plantation and watering.

ii) Fabricated cupboard for

workshop: as per requirement of the

workshop. We have converted our old open cupboard into closed as student project.



DBRT activities

iii) False Ceiling for Fab Lab :

Workshop dept completed False ceiling of Fab Lab. From estimates, fabrication and fixing rod sheets everything was done by DBRT students.

(Rajesh,ajinkya,sachin,ashish,omkar).

iv) Electric Section : Students were busy with Maintenance of solar system, Gas stove maintenance, motor rewinding and electrical fittings.

v) Poultry farm update – Feed consumption –324.8 Kg , Egg

produced – 1740 (145 Dozen) , FCR –

2.24 (Little higher side) , Mortality – 0 birds (Total mortality since start 9 , Total birds in stock – 111)

vi) SI group donated eight used Intermediate bulk containers (IBC) tanks of 1000 lits. We have installed them for grey water recycling and in agri dept.



False Ceiling @ Fab Lab

F] IBT Update :

i) 3D Printing workshop : Under this new initiative, 18 students of Pabal school learned 3D printing on 25th and 26th Dec. Similarly, students of Dhamari school learned 3D printing on 27th and 28th Dec.

ii) IBT alumni of Hingangaon school Mr. Prakash Sarode became a Nursery in charge at KNOWN-YOU SEED(INDIA)PVT. LTD. He spoke about his experience about IBT in following video : -

<https://drive.google.com/open?id=1sN-X3dO9NwiW6T3QNDnSagPXn2y3tXEA>

iii) IBT students Ms.Kalyani bhor (Gawdewadi) & Pranav chaskar (Chas) were interviewed on Akashwani,Pune (Radio) on

18 Dec. They spoke about 3D printing and IBT projects in program 'खुलं आकाश उगवते

तारे'. The program will be broadcasted on 11th Jan.

iv) IBT schools displayed their projects in Science exhibition. Nagaj school got 1st prize at taluka level for their engineering project 'Rotavater & bed digging machine using scrap'. Similarly, Amboli school in Khed (Pune) tehsil got 1st first prize.



Designing for 3D printing

v) Following video conference lecture were conducted this month :- Mulching technology (9 schools/288 students-8th Dec); Different irrigation methods (12schools/372 students- 15th Dec), RCC technology (11schools/363 students), Solar energy, Solar energy (10schools/340 students).

G] Chattisgarh IBT :

i) 8th std IBT students in Bacheli (Dantewada) school completed PVC piping of 90ft to staff quarters. It took three days of work and material cost of Rs.4000/-.

ii) IBT students of Matwada high school made solar dryer. They dried 3kg cabbage.

iii) Suhas visited Palnar innovation Lab between 8th to 16th December. He along with Gaurav and Poornima conducted workshops in DAV Polytechnic and IBT schools. Palnar team conducted more such workshops in 5 more schools.

iv) Students made water level controller, fab motion, flutes using PVC pipes, 3D design in this month.



IBT snapshots in Chattisgarh

G] Entrepreneurship Accelerator

i) Field visit & meeting on SOW project - Dr.Sudhir Prabhu, Seematai Khot, Yogesh Kulkarni, Ranajeet and team visited Pasli on 10th and met beneficiaries of SOW project. A review of project and future plan of action was discussed. It is decided to focus only on 5 youth and help them to become successful in their enterprises.

ii) Following articles about our alumni got published in Agrowon. Mr.Rajesh Shinde (A/p-Nigde, Pasli, Velha) 'Dhupkandi' enterprise :3rd Dec; Mr.Prashant Nevse : Poultry layer farming enterprise: 17th December.

iii) Ranajeet conducted career guidance session on rural enterprise opportunities to 10th std students @ Jawhar Navoday Vidyalaya, Pimple Jagtap.

iv) Yogesh, Vicky and Harshada participated in STARs forum conference at Wardha from 14th – 16th Dec. Theme of the conference was 'Make in Rural India'. Yogesh gave presentation on 'Fab Village'.



Meeting in Pasali with Dr.Prabhu and Seema Tai

HJ DIY Lab : Following workshops were conducted at DIY Lab especially for PMC school students.

Workshop	Dates	Number of students
Fun with Electronics	3,4,6 th Dec	6
Science project preparation	18 th & 19 th Dec	12
Fun with Electronics	24 and 26 th Dec	20
Advanced electronic projects	29 th Dec	5



I] Technology Development:

i) Liquid broth for composting:- In composting we are using microbiological culture developed by BARC (Dr. Kale). BARC culture is best suitable for kitchen waste which includes cooked food and uncooked parts like un-used part of vegetable and fruits pieces.

We are using part of compost as a microbiological culture for new input. Optimum ratio is about 30 to 50 % old compost and 50 to 80 % fresh kitchen waste. This required 30-50% of space in composting bins for old culture. This is a limiting factor. Sonal has worked on development of equal broth to mitigate this limitation. Liquid broth developed gave us very progressing result, 70 % reduction in volume in 8 days. As a result, we estimate to reduce cost of composting system by 25 %.

ii) Soil health Lab : 5th December was a World soil health day . Ranajeet participated in the program organized by agriculture department, Shirur to distribute soil health card to farmers. He shared our experience of soil organic matter enhancement through azolla based composting.

Soil health card : We have completed printing of 8700 soil health cards from 8



villages. These health cards are submitted to respective agriculture officers for onward distribution.

iii) Ranajeet visited IIT,Powai on 8th Dec to edit video made for training. We have made video's on i) Recycling of grey water ii) Preparing kitchen garden, preparing land for kitchen garden, seed treatment, watering methods iii) Common questions and difficulties in composting iv) How to use pressure cooker. All these videos are available on Vigyan Ashram youtube channel :

<https://www.youtube.com/channel/UCFOH2Jf313u8OrQ3B-PohaA>

iv) Vigyan ashram has established Institution Innovation Council (IIC) as per the norms of Innovation Cell, MHRD, Govt of India.

v) **Composter Progress** : Trails at Madhuban Resort, Ranjangaon were successfully completed. Now we have given quotation to Madhuban. The composter unit was shifted to Pune. We have given demonstration at Utsav residency Wagholi on 13th Dec. Trails were also completed at Siddharth housing society, Aundh. We have given quotation to them. We have started visiting Bhor waste recycling facility and started giving technical consultancy to Greeny the Great !.



J] Other tit-bits –

i) Students of Disha India

Education Foundation's experiential learning program on Design, Innovation and Technology, Gurgaon visited VA on 25th and 26th Dec. There were 9 boys and 5 girls with 2 instructors. We have introduced them with basic skills in making solar lamps, Making chikki, use of solar cooker etc.



ii) Mr.Ohad Meyuhas, Head Innovation lab and CSR operation Stratasy's and Fab Guru visited VA on 21st Dec. It was nice interaction for preparing for Fab Academy 2019.

iii) Fab Lab team is gearing up for next season of Fab Academy. Ordering inventory, machine maintenance, preparing time table for local lectures is in progress.

iii) Mr. Hiten Gandhi, Assistant manager Startup Innovation, Maharashtra Innovation society visited Vigyan ashram on 6th Dec to know more about IBT and DIY curriculum.

iv) We are thankful Mrs.Vidya kasargod, Mr Utkarsh Talwelkar, Alka Hingorani , Durgadevi Charitable Trust for their donation this month.

v) Weather record – Rainfall – 0 mm : Total 350mm (June to Dec) ,Max temp- 31 °C, Min Temp – 16°C , Humidity – 59 % , Water height in well – 7.36 mtr.

vi) Energy consumption record- Electricity unit – III Phase- 766 unit, I Phase- 820 unit. Quality of power: Number of interruptions: 27, No power: 9 hrs. Normal voltage: 88.2 %, Low voltage : 9.55 %, No supply : 2.25 % , No data : 0 %

vii) Biogas consumption – Dung used- 126 kg, Gas produced- 7.2 m³ (under maintenance)

viii) Two wheeler usage : **XX kms**

ix) Online visitors : www.dsttara.org - 827(New visitor – 634 Repeated-93) , www.vigyanashram.com – 1275(New visitor – 1049 Repeated-226) , www.vigyanashram.wordpress.com – 1076(Visitor-693 Viewers-383)

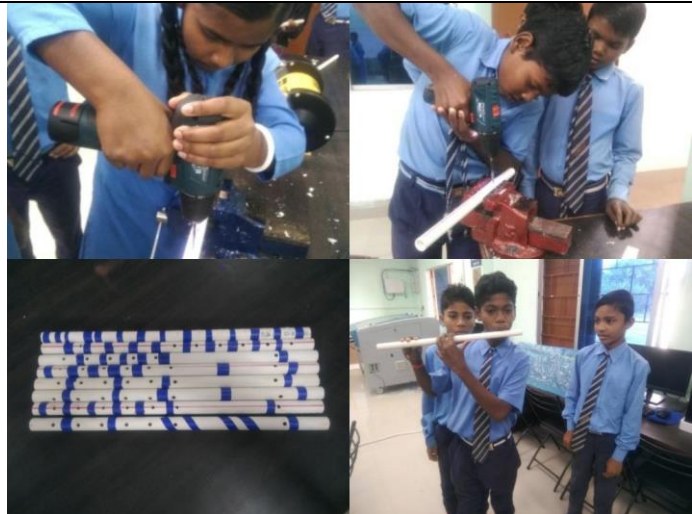
Data Report : For Regular update: www.facebook.com/vigyan.ashram.pabal

https://drive.google.com/open?id=0B_Jk2xLqAXjcTzBhX0tfVnpZd3JaSk1ZLTN4SkNIQTF3UDF3

Our sites : www.learningwhiledoing.in , www.dsttara.in , www.vigyanashram.wordpress.com , www.vadic.wordpress.com , <https://ruralstartup.wordpress.com/>

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

Photo Gallery :



Making flutes @ Palnar lab



Composter demo at Wagholi



Team of Disha Education foundation @ VA



Ohad @ VA Fab Lab