

Vigyan Ashram Status Report

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In this issue

- All the Best ! DBRT batch 2017-18
- Annual IBT Instructors training at Pabal
- Completion of Fab Academy 2018
- Training on technologies developed by BARC

A] DBRT 2017-18 batch completed their training

47 DBRT students, 8 Fab Academy students and 10 DIC students has completed their course on 25th June. Suraj Prajapati stood first, Dhananjay Kadam stood second rank and Bipin Bingari secured third rank in DBRT class. Akash also got Best Student of DBRT 2018 award. Mr. Bhagawat Nandan Guruji of Barefoot college, Tilonia and Ms Jyoti Gawade of Asha for Education- Seattle Chapter were Guest of honour on the occasion. Out of 47 DBRT students, 37 got placement. Remaining 10 students are either below 18 or wish to pursue higher education. We wish all the best for all graduated students of 2017-18. We are sure, they will make us feel PROUD by their progress. Now waiting for next batch 2018-19 ! You can see work of DBRT students on : <https://vigyanashramalumni.wordpress.com/category/dbrt-2017-18-batch/> ; Video of activities : <https://www.youtube.com/watch?v=TBb2G6syK1M>



B] Completion of Fab Academy 2018 course : Six months Fab Academy classes were concluded on 6th June. 7 out of 8 students from Vigyan Ashram gave their project presentation on 15th June. After local and global evaluation, Seven students graduated from Fab Academy. They will get certificate in Fab14 conference at France. Details of students and their projects and presentation videos are available on : <http://fab.academany.org/2018/labs/fablabvigyanasharm/>



Fab Academy 2018 : Moments in June 2018

C] IBT Instructor Training Program

Total 98 instructors from 31 schools underwent instructors' training in the month of June.

- a) Mid-level Training: It was conducted from 4th to 7th June at Pabal. Total 41 instructors from 15 schools were participated in the training. These schools are supported by Praj Foundation and Suzlon Foundation. The main objective of this training program was to introduced instructors to the teaching methodology and use of learning material.
- b) New Instructors Training: It was conducted from 12th to 17th June at Pabal. Total 57 instructors from 16 schools were participated in the training. These schools are supported by Step one, Nalanda foundation and SP group. The main objective of the program was to introduce instructors to the activities for IX class (Level1) of IBT program.
- c) IBT Principals meeting was held on 27th June. 15 Principals of L&T supported school participated in the meeting. A review of the last year's progress and community services was taken and planning was made for coming academic year. Mrs Kalyani Mujumdar from L&T attended the meeting.

d) Ms.Neeru Singh (Director,IL&FS transportation networks Ltd), Mr.Alok Bhargav (CEO Nalanda Foundation), Mr. Manimaran (Project manager Elsamex), Mr.Ashish Patel (CSR manager) visited the Chas school on 20th June. They had seen all projects and interacted with students.

e) Yoga day was celebrated in Nutan Maratha Madhyamik Vidyalaya, Chhadvel and Nutan Madhyamik Vidyalaya, Aichale on 21st June.



IBT Instructors Training

D] Update - Technology development & Design innovation centre:

i) BARC training: Bhabha Atomic Research Center (BARC) has developed various technologies for rural applications. They are transferring it to organisations for its replication under its AKRUTI program. Marathi Vidnyan Parishad has purchased all technologies packages from BARC for Vigyan Ashram. Team from VA comprises of Dr.Arun, Ranajeet, Sonal and Shubham underwent technology transfer training program on 27th & 28th June @ BARC , Mumbai. We had taken training on Soil OC kit, Trichoderma multiplication, Processing of Litchi , Neem seed based pesticide, water filtration & solar drying technologies.

We are planning to adopt these technologies & replicate them through our network of IBT schools and students.

ii) Mirco-biological Lab Projects: Various projects are under development in Micro-biology lab.

a) Wheat Straw Composting :- Wheat straw decomposition is a major problem because of high content of lignin. We have tried five beds with different cultures (1.Azolla, 2.Poultry manure 3.Vermi compost 4.Urea 5.Control plot). We have maintained carbon to nitrogen ratio as 1:60. After 30 days we got remarkable result on wheat straw and azolla.

b) Yeast Multiplications :- We are trying to make yeast for our bakery in the lab. Using fermentation techniques 1ml of yeast cell multiplied into 500ml of yeast cell and this yeast was used for making Pav. Sonal took 16 different trials and got result on the 17th trial. She also tried making Pav in bakery using our own yeast. Now we will make it a part of the course.



c) Hardness of water: Sonal has researched and selected test to measure hardness of water. Amount of calcium present in the water is

measured to determine hardness of water. This is very important for us to prevent mortality in aquaponics system.

iii) Aquaponics IBC : A new IBC (Industrial Bulk Storage) based aquaponics system is fabricated during IBT training. This system is hobby scaled / demo version of aquaponics. Its based on 1000 lit capacity IBC with (800 lit fish tank + 200 lit grow beds) bell-siphon water circulation system. System cost us approx.Rs.3500 can produce vegetables & fish for household level terrace gardening.

iv) Aquaponics updates: Aquaponics new trial –

- Fish seeds – 5000 fingerlings of Vietnam Koi (Ababas cobojus) fish were received on 7th June. Fish were affected with unknown (probably fungal) disease after 3-5 days. We faced very heavy (50 to 60 %) mortality due to this disease. Disease was controlled by putting fish in salt (2 %) + Betadine (0.2 %) solution water for 20 sec.
- Fish tank loaded with around 2500 koi & 65 grass carp fish.
- Bio-beds, water circulation plumbing & siphon system was repaired & activated. Oxygenation pump installed with inverter backup.
- To avoid grasscarp feeding on floating pallet feed. A floating half cut barrels with holes at bottom for koi to enter in drum (selective feeding) was fabricated & placed in fish tank.



- Polyhouse beds repaired & new rose plants, marigold , moringa planted. New azolla beds prepared.

v) Soil Health Card mission 2018-19: In this month 2761 soil sample from 10 (out of 12) villages collected for further analysis. Apart from these 110 independent samples were also tested.

vi) Development of Nachani Roaster and Solar drum roaster and pyrolysis based incinerator is in progress.

vi) Sprouter unit for home : Siddhesh developed small unit of sprouter. It was introduced to IBT instructors. We expect them to replicate them in schools as part of their fabrication practical's.

vii) Siddhesh visited Saswad to make presentation of hygiene box to Swachha bharat monitoring team. Saswad Municipal corporation got award in the Swaccha competition by Govt of India.

Viii) Innovation Lab Palnar, Dantewada:



Innovation Lab - Palnar

Installation of Lab in Palnar was done between 29th June to 4th July. Suhas visited Palnar for lab installation.

A demo activity was conducted with students and Meeting of Principals of 5 schools was held on 3rd July.

ix) Volunteers / interns updates – 6 students from B.Tech(Agri) and 3 students BE(E&TC) completed their 1 month Summer internship program during June.

E] DBRT Updates:

i) **Annual review meeting:** Annual academic program review meeting was conducted on 30th June. The meeting was aimed to take review of lessons learned during last academic year. We have collectively taken some operational decisions to increase effectiveness of the course.

As a preparation of the meeting, a detailed feedback was taken from passing out batch. This feedback was presented to the team for discussion.

ii) New admissions are in progress. We have promoted DBRT course through social media, through posters in the schools in nearby villages. E-mailers were sent to our contacts.

iii) Vishal gave talk on DBRT course in career guidance forum in Taleghar on 13th June.

vi) Pooja attended Advanced Training on Wikipedia Editing at Ranchi from 29th June to 1st July 2018.



Pooja presenting @ Wiki conference, Ranchi

vii) Community Services by DBRT students:

Electricals : Single phase motor servicing, Solar system fuse repair,

Motor rewinding of workshop motor, Hostel No 1,3 and 6 wiring maintenance, Installed 2 HP water pump and done plumbing work in Pabal village, Overflow cut off switch on dreamhouse, Tree

branches trimmed near 3 phase line between DP to Ashram, Internet router power cable replacement.

Workshop : A compound is made around Ladies hostel building. Windows for new hostel.

Agriculture : Poultry farm update – Number of eggs – 1292Egg , Kg of feed used – 277.2 Kg (FCR – 2.57 / dozen of eggs) , Hens on egg – 80 to Mortality – 1 Birds.

viii) DBRT exam was held on 20th , 21st, 22nd June.

F] DIY Lab @ JPNC :

i) New Julia -3D printer was installed at JPNC on 29th June.

ii) Laser printing workshop on new Laser cutting machine (developed in VA) was held on 9th June with 7 students.

iii) Padmaja conducted 3D printer workshop at Sumati Balbhavan.



G] Other tit-bits :

i) Management committee meeting was held on 10th June 2018. Meeting was attended by Mr.Ashok Kalbag, Mr.Vijay Kumar, Mrs Anjali Chipalkatti, Mr.Mahendra Rajgude, Dr.Yogesh Kulkarni to discuss important issues like new hostel construction, 3rd phase DST CORE support project , security issues on campus, New proposals etc.

ii) Yogesh participated in Startup Maharashtra Week event in Mumbai on 26th June as Jury in Agricultural Technology sector.

iii) Hostel Construction : We are nearing completion of rooms on ground floor. Construction of bathrooms and toilets were done, plastering of walls, grills were done. We are targeting to start using hostel from 10th July i.e with new batch.



iv) We have submitted proposal on 'Joy of Learning' and 'Aquaponics' in collaboration with fab foundation to IUSSTF.

v) Vigyan Ashram become part of Indian Multiversity's Alliance www.multiversities.net

vi) Visitors to camps : Dr.Shridhar Iyer (IITB), Yogesh visited RiIDL on 26th June, Visitors to Pabal campus – XX ; www.dsttara.org – 855 (New-761, Repeated –94), www.vigyanashram.com – 1478 (New visitor –1233 Repeated-245) ,www.vigyanashram.wordpress.com –1604 (Visitor- 1050 Viewers-554)

vii) Weather record – Rainfall – 102 mm (Total 102 mm) ,Max temp- 28° C, Min Temp – 23° C , Humidity – 69%, Water height in well – 6.7 mtr.

viii) Energy consumption record- Electricity unit – III Phase- 929 unit, I Phase- 518 unit. Quality of power: Data logger is not functioning hence details are not available.

ix) Two wheeler usage : 581 kms

x) Biogas consumption – Dung used- 93 kg kitchen waste, Gas produced- 18 m³.

Data Report :

https://drive.google.com/open?id=0B_Jk2xLqAXjceVEtclExWkFENnFqdjhWbk94Y1NXZnIUdVdR

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

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, Lend-a-hand-India, Suzlon foundation, Fab foundation, Dept of Science & Technology, and many individuals and foundations)

Photo Gallery :



IBT Principals Meeting (One Step foundation)



IL&FS team visited Chas IBT school



Nachani roaster



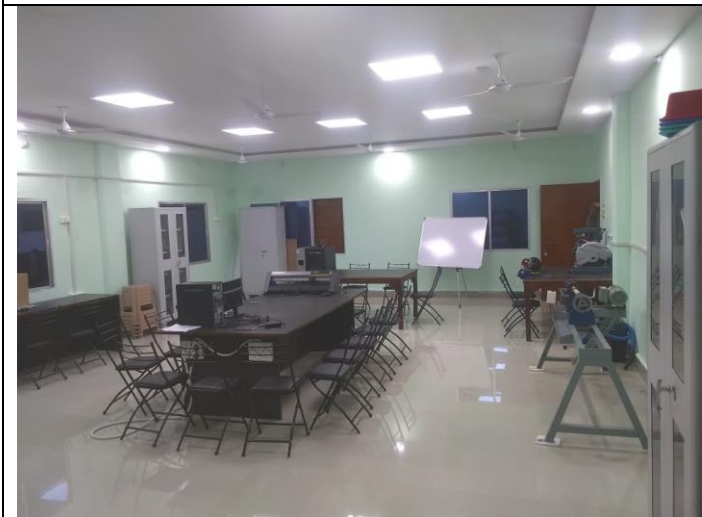
Sprouts in domestic sprouter machine



DBRR : Project completion



Status of new hostel room



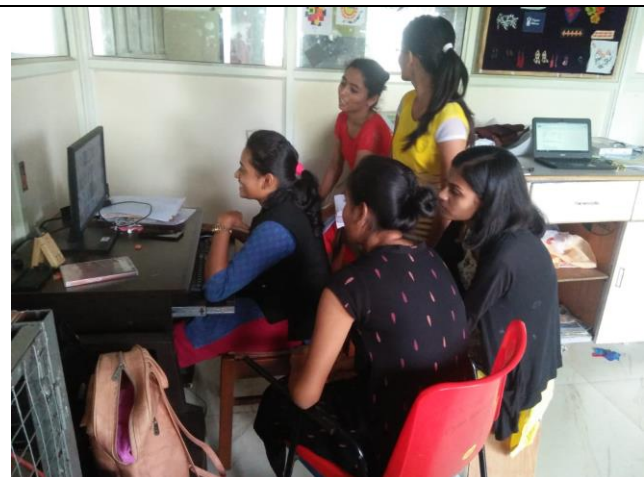
Palnar Innovation Lab



New cabin @ ashram : DBRT contract



Best Student : Akash : DBRT 2017-18



Embroidery Class : Fab Textile