

Vigyan Ashram Status Report

Volume 33 No 12

December 2015

In this issue

- Technology demonstration at Agriculture exhibition 5-7th Dec
- Poultry trainees from Balarampur(CG)
- DBRT activities at peak - students are busy with projects
- Microcontroller workshop started in schools.

Developed economical flat solar DRYER :

Developed 8ft X 4ft Economical open terrace flat solar dryer. It is developed as per requirement of the customer to dry vegetables; moringa leaves, wheat sprouts etc in bigger quantities. Cost of the dryer is approx. Rs.2300/-.

Material tray is made from Stainless Steel with Aluminum frame.

We have taken into consideration, requirement of the user such as –
i) easy for handling and rotation of drying material ii) Protection from dust, flies, birds. lii) Food material will come in contact with stainless Steel material only.



Agriculture Exhibition

We have participated in Agricultural Exhibition organized by KVK-Narayangaon from 5th to 8th Dec. We have demonstrated newly developed technologies like hydroponic unit, Bike mounted HTP, Egg Incubator. We have got good response from farmers with many inquiries.

DBRT students (47students + 5 teachers) visited another agriculture exhibition KISAN in Pune on 19th Dec.



Poultry Training

Livelihood college, Balarampur(CG) send 13 tribal students for 3 months poultry training course starting from 15th Dec. They will raise poultry and also undergo training on Egg incubator. The course is sponsored by District Collector, Balarampur.



DBRT team @ Kisan Exhibition

New interns joined VA

We are regularly giving short term projects to graduate and undergraduate students. We have following interns joining VA this month.

i) Ms Neha Arora, Azim Premji University (2 months) – She will be working on making biodiversity register with the help of IBT students of Pargaon, Mukhai and Gawadewadi school.

ii) Ms Komal Pali, Azim Premji University (1month) – She will be developing activity schedule for IBT

schools.

iii) Ms Inali Wahane, BE(Electronics) (6 month) - She will be working on solar DC-DC charging circuit for laptops.

F] DBRT Update:-

a) New addition to Animal Husbandry dept

i) New cow 'Gau' delivered male calf on 23rd Dec.

ii) We have brought two baby (she) goats, one each of Sirohi (11.5kg) and Sojit (10kg) breed. We brought them in exchange of Osmanabadi He goat (33kg).

iii) One osmanabadi baby (he) goat (8 kg) died on 30th Dec.

iv) We have done number tagging of all goats on 28th Dec.

b) Team of Mahakaushalya officials visited VA on 18th Dec to inspect our facility for certifying as Vocational Training Provider (VTP). They have provided sanction for agriculture and food processing courses. We need to install biometric attendance at ashram for student as part of the compliance.

c) Technologies from Demotech (<http://www.demotech.org/>)

Mr. Reinder van Tijen and Connie from Demotech, Belgium visited VA from 15th to 23rd Dec. He has built a demo lab of various low cost technologies at his native place in Netherland. During his stay at VA, he worked with DBRT students and demonstrated various technologies like drip

bottle, low cost LED lamp, low cost cement tiles etc. We are planning to adopt these technologies as IBT student's projects.



Ferrocement tank



Water bottle Drip and ferrocement tree guard

d) **Techno Demo Park:** DBRT workshop students has taken a project to make a technology demonstration park on campus. All technologies developed by VA will be displayed in the area for visitors.

e) Kitchen Construction Work : Under guidance of expert meason, DBRT student Sumit and prashant are working on brickwork of the first floor of kitchen. building



Kitchen first floor



Toilet construction

f) Social Place : Pranav Kawale and Satish Mirashe are working on upgrading social space. They have made shelter, beautification of the place and planted trees.

g) Toilet Project : Dipak and Tejas completed the toilet (tiles fitting, Door fitting, plastering etc.) for hostel no.6. as their project work.

D] Technology Development - Following projects are in progress

i) Solar device to making Khoa – We are experimenting with different utensils to make Khoa on parabolic cooker. We tried with different cooker/cooker with agitator, steel vessel with flat bottom etc.

ii) High density fish farming (RAS) experiment- In aquaponic experiment the problem negative FCR is resolved by reducing fish density and fixing new bigger capacity ventury(as air suction valve).

With this FCR is improved to 1.34 , now individual fish is weighing around 67 Gm.

iv) Foldscope workshop – Vijay and Ganesh attended workshop on making Fold scope at Delhi on 16th Dec.

This is simple microscope developed by

Prof.Manu Prakash at Standford university. It can be used to detect

bacteria and also be connected to mobile camera and pictures can be taken. We are practicing on it.

v) Rice dehusking machine – We were facing problem of rubber getting worn out after 250kg of rice polishing. After various trials we have decided to use 95 density, nitrile rubber of 20mm thickness. It is giving 85% dehusking result for Indrayani rice variety. Even very small stone in rice, can cause damage to the rubber blade. Therefore we have also made a screening vibrator to remove small stones from rice.

vi)Incinerator – It is under pilot testing for live trials. It is found that in case of low voltage, it gives away smoke. We are working on the issue.

vii) Orders :

- a) One Egg incubator delivered to NAWNATH MILK & MILK PRODUCT PVT .LTD. A/P KARANJE, TAL-BARAMTI.
- b) Rope washer pump, HTP Pump and Mahua cutter was despatched to BAIF after training.
- c) Order for two Amla cutting machine.



New plates for rice dehusking



E] Entrepreneurship Accelerator

TIED Fellow's progress –

i) Jayesh Dhayrkar – Jayesh got micro-finance support from Rang-De for his goat farming Venture. Rang-De has supported him with Rs.1.2 Lac initial capital cost for goat purchase (profile -<https://www.rangde.org/borrower/microventure/india/maharashtra/jayesh/44366>). Jayesh has also saved nearly Rs.20000 from his fellowship tenure and purchased steel (scrap) for goat shed from VA.

ii) Phuleshwar Ram – Phuleshwar is from Balrampur district of Chhattisgarh. He is learning motor re-winding skill from past 2 months. He is been placed with USTAD trainer at Kendur village near Pabal. He has acquired more repair / re-winding skills and repaired 10+ motor in last 2 months independently. He is working on his electrical shop and assured by district administration of Balrampur for initial financial support.

iii) Akshay Palkar – Akshay is working on Plastic waste recycling and Rice De-husking machine project for learning metal fabrication skill. Presently he is undergoing various trainings at VA and wish to establish his workshop in Kothrud area of Pune.



Rajesh with his bakery products

iv) New Fellows joined -

- 1) Swapnil Naravade joined fellowship from mid of November. He is from Savindane village (25 Km from Pabal) and wish to establish is vegetable nursery at his native. Presently he is operating VA nursery and taking orders from local farmers to learn nursery skill. He has also started building low cost nursery shed with own finance on 10 Gunta area.
- 2) Two more VA students are shortlisted for fellowship program from January – Mr. Prafull Gunjal (DBRT 2013-14 Batch) and Dattatray Chaudhari (IBT instructor).

v) STED update –

- DBRT alumni get together cum entrepreneurship workshop was held on 5th Dec @ Lokmanya vidya mandir, Chikhargaon ,Dapoli. Total of 9 DBRT students attended workshop. Laxman and Pawan conducted the workshop.
- STED poster finalized and printed. These posters will be distributed to nearby colleges / technical institutes, IBT schools to promote rural accelerator program.

G] IBT Updates:-

i] IBT in Maharashtra:

a) Yogesh visited IBT program at Belewadi and Hasur on 23rd Dec. A meeting with management and all school teachers was held and issues in implementation were discussed.

b) Yogesh also visited Samarth Vidyalaya, Kolhapur on 24th Dec. They are planning to start IBT program from next academic year. This school is special school run by helpers of the handicap. It



Yogesh with Belewadi Team

will be different experience for VA team to work for differently abled students.

c) Yogesh visited WCT on 21st at Mumbai to discuss IBT project in Pench/Tadona.

d) Yogesh gave talk on 21st century education at Jnan Prabodhini on 25th Dec.

e) Arduino workshop was taken in Anavali and Kasegaon Schools from 7-12 December 2015.

30 students from Anavali school participated and made arduino based musical instrument Illumophone. In Kasegaon, 60 students participated and made arduino based musical guitar. Under this activity, they learned Arduino basics, Programming and Arduino board application in projects.



Electronic Gitar

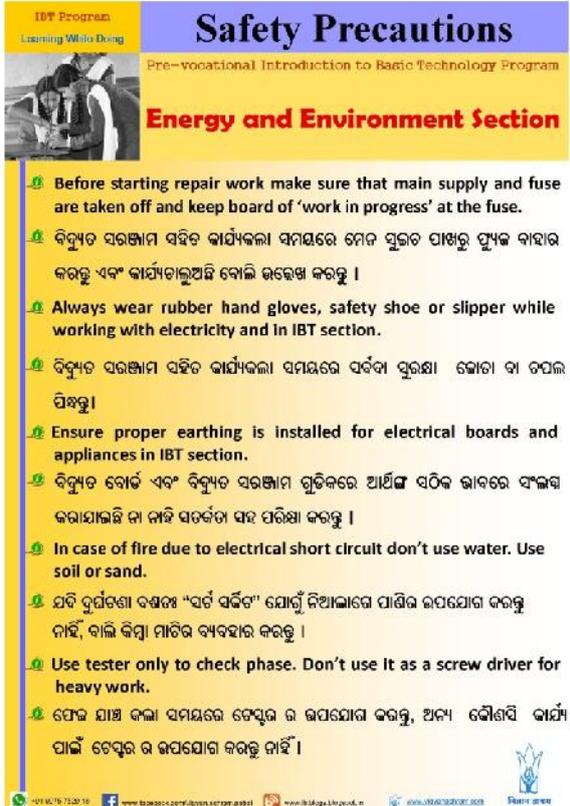


Students with their projects

f) Scrap Rally : We have promoted scrap rally in IBT schools. Students collected the old equipment and all unused material from homes by going in a rally. The material is then used as raw material for projects. Vadacha pat in sindhudurg organized rally on 23rd Dec. Many schools conducted the rally and got valuable scrap.

g) ILFS has given sanction for supporting IBT program in 4 schools near Manchar.

ii) Odisha IBT Program : IBT activities are getting momentum in all schools in Odisha. We have prepared safety posters in Odia language.

 <p>IBT Program Learning While Doing</p> <p>Safety Precautions Pre-vocational Introduction to Basic Technology Program</p> <p>Energy and Environment Section</p> <ul style="list-style-type: none"> 1. Before starting repair work make sure that main supply and fuse are taken off and keep board of 'work in progress' at the fuse. 2. ବିଦ୍ୟୁତ୍ ସରଞ୍ଜାମ ସହିତ କାର୍ଯ୍ୟକଳା ସମୟରେ ମେନ ସ୍ୱିଚ୍ଚ ପାଖକୁ ଫୁଲ ବାହାର କରନ୍ତୁ ଏବଂ କାର୍ଯ୍ୟକଳା ଆସି ବୋଲି ଉଲ୍ଲେଖ କରନ୍ତୁ । 3. Always wear rubber hand gloves, safety shoe or slipper while working with electricity and in IBT section. 4. ବିଦ୍ୟୁତ୍ ସରଞ୍ଜାମ ସହିତ କାର୍ଯ୍ୟକଳା ସମୟରେ ସର୍ବଦା ସୁରକ୍ଷା ଗୋଡା ବା ଚପଲ ପିନ୍ଧନ୍ତୁ । 5. Ensure proper earthing is installed for electrical boards and appliances in IBT section. 6. ବିଦ୍ୟୁତ୍ ବୋର୍ଡ୍ ଏବଂ ବିଦ୍ୟୁତ୍ ସରଞ୍ଜାମ ଗୁଡ଼ିକରେ ଆର୍ଥିଙ୍ଗ୍ ସଠିକ୍ ଭାବରେ ସଂଲଗ୍ନ କରାଯାଇଛି ତା ନାହିଁ ସତର୍କତା ସହ ପରିକ୍ଷା କରନ୍ତୁ । 7. In case of fire due to electrical short circuit don't use water. Use soil or sand. 8. ଯଦି ଦୁର୍ଘଟଣା ବସନ୍ତ "ସର୍ବ ସର୍ବତ" ଯୋଗୁଁ ନିଆଁଲାଗେ ପାଣିର ଉପଯୋଗ କରନ୍ତୁ ନାହିଁ ବାଲି କିମ୍ବା ମାଟିର ବ୍ୟବହାର କରନ୍ତୁ । 9. Use tester only to check phase. Don't use it as a screw driver for heavy work. 10. ପେନ୍ ସାଥ କଳା ସମୟରେ ଟେସ୍ଟର ଉ ଉପଯୋଗ କରନ୍ତୁ, ଅନ୍ୟ କୌଣସି କାର୍ଯ୍ୟ ପାଇଁ ଟେସ୍ଟର ଉ ଉପଯୋଗ କରନ୍ତୁ ନାହିଁ । <p>2019/12/16 11:20:16 www.bapccs.com/ibtpm/ibtpm.html www.ildaga.likpod.in 0661264230202008 ବିଦ୍ୟୁତ୍ ସୁରକ୍ଷା</p>	
<p>Safety poster in Odia</p>	<p>Podium made by IBT school - Nawapara</p>

iii) IBT in Chattisgarh :

- a) VA entered into MOU with UNICEF to implement IBT program in CG. We will be introducing IBT in Jashpur district as part of efforts to reduce child trafficking.
- b) Shilpa, Radhika visited Dantewada and Bijapur from 29th Dec – 2nd Jan to plan for video shooting of IBT program in CG.
- c) All 17 IBT schools are busy preparing goods for sale in Rangeela Bal Mahotsav in Jan 2016.
- d) Electrical instructor and 18 students of Porta cabin school, Mendoli completed electric wiring of 4 rooms of Gram Panchayat, Bhavan. They earned Rs.5000/- as community service.
- e) Value of community services from agriculture dept is as follows –
Mendoli – Rs.6000, Benglur – Rs.270/-, Chitalur –Rs.5000, Bhansi –Rs.2050, Godre – Rs.2800/-, Bachel- Rs.1800/-, Gatam – Rs.3500/-

I] Other tit-bits-

- i) Ranjeet attended Hydroponic training at MCCIA. Ranjeet gave presentation in STARs forum conference on 6th Dec.
- ii) Raspberry pi workshop was conducted @DIY Lab on 13th December 2015. Total 7 Participants taken training on Raspberry pi board.
- iii) Vigyan Ashram featured in Top Maker Spaces in India : <http://diyhacking.com/top-maker-spaces-india/>
- iv) Fab classes are stated for DBRT students.
- v) Community service of DBRT – Food Lab – Rs.6416 (Sweet Lemon Pickle- 15 kg, Mix Veg Pickle -5 kg, Chilli Pickle - 5 kg, Chikki - 10 kg), Workshop – Rs.49,555/-,
- vi) Weather record – rainfall of the month – 0mm, Rainfall YTD – 480 mm, Max temp-24°C , Min Temp – 18°C, Humidity –56% , Water height in well – 4.9 M
- vii) Energy consumption record- Electricity unit – Three Phase - 979 KWH, Single Phase – 732 KWH , Quality – No. Of interruption- 132 , Normal Voltage -77.41% High Voltage- 13.44% Low voltage- 0.72% No Supply-8.43%
- viii) Diesel consumption for generator- 0 Lit , Two wheeler running- 480 Km.
- ix) Biogas consumption – Dung used- XXX Kg, Gas produced- 35.4 m³
- x) 434 visitors visited Vigyan Ashram in Dec 2015.
- xi) VA online visitor – www.learningwhiledoing.in –New-609 , Repeated –78,www.dstattara.org – New-313 , Repeated –73,www.vigyanashram.com –New- 1686, Repeated – 432,www.vigyanashram.wordpress.com – Visitor –2778 , Viewers –955

Data Report Link-

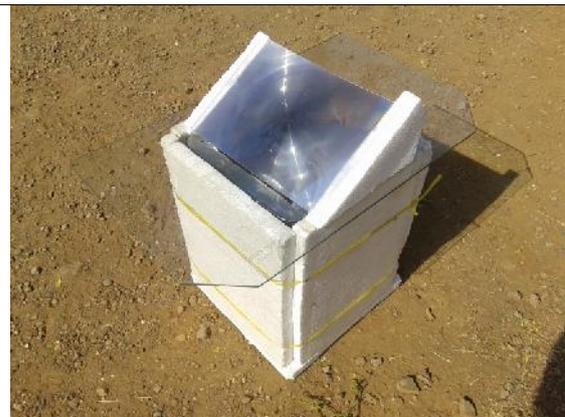
<https://drive.google.com/file/d/0B3-4RfsZ2K2OT0hCNDIJOUtuY1U/view?ts=56c8598c>

(Work of Vigyan ashram is also supported by Asha for Education, INDUSA, UNICEF, Govt. Of Chhattisgarh, Lend-a-hand-India, Suzlon foundation, Megger (I) Pvt Ltd, Eton (I)Pvt Ltd, Dept of S & T , RGSTC, Praj Foundation and Many Individuals and foundations)

Photo Gallery:



New batch of Poultry birds



Failed Experiment : Making solar cooker using Fresnel lense.



Hydroponic demo at Narayangaon



Students doing Pipeline work at Kurze high school



Amkhel IBT – agriculture produce



Ranjeet speaking at STARs forum

For regular update : <https://www.facebook.com/vigyan.ashram.pabal>