

Vigyan Ashram Status Report

Volume 34 No 2

February 2016

In this issue

- Rang De impact confluence at JPNC
- DIC project on BOMES dome
- Hirkani Vidyalaya become first IBT school to have 3D Printer
- Symbiosis students are making Sterling Engines at D-I-Y lab

A) RangDe Impact confluence at JPNC

We have co-hosted annual meeting of all partners of RangDe on 6th and 7th Feb. Rang De is crowd funding based micro finance organization and providing loans to



small entrepreneurs. They are providing loans to VA alumni's as well. Total 70 participant attended the meeting including representatives from 18 field partners from 12 states & RangDe's social

investors. Some of them also visited pabal campus. Yogesh had conducted session on rural technologies and livelihood opportunity. Our students Jayesh and Vandna also presented their experiences with RangDE and their entrepreneurship journey.

B) BIOMES project –

Biome refers to growing plants with similar climatic requirement with climate control systems/structures. Trials started to test feasibility of using Pabal dome (Geodesic) structures are



BIOME. Idea is grow high value fruit / vegetable or spice crops in control environment while using vertical space in dome structure. We have covered 7 mtr diameter Pabal dome structure with UV stabilized polycarbonate (polyhouse) paper, drip irrigation system. 12 pomegranates are also planted in dome as experimental unit and 12 plants outside dome as control.

We are also planning to install automated irrigation, climate control systems and study effect of control environment on growth pomegranate plants as compare to control. Two students from B.Tech, Agriculture college (Dapoli) & DBRT students are working on this project.



C] 3D printer in IBT school

Hirkani Vidyalaya becomes first IBT Model School to have 3D printer. It might be the first Marathi medium secondary school to have 3D printing facility. We got this printer with the support of ILFS. It was inaugurated in a function held on

21st Feb. Students will learn basic design software and making 3D objects as part of their computer class.

D] Symbiosis students making Sterling Engines at D-I-Y lab



Students of Symbiosis school of liberal art (SSLA) joined D-I-Y lab. They are using it on every Saturday from 6th Feb to experience fun in making Science and technology projects! All of them are making their own sterling engines in group of 3 students. So far 27 students made 9 sterling engines. The program will continue

till 16th April. All 70 students of SSLA visited VA on 13th Feb. Video of sterling engine made in the lab is available on : <https://youtu.be/OVfUmGS2mJ8>

E] DBRT Update:-

- i) Basic two wheeler servicing and maintenance course for DBRT students was started from 10th Feb. Mr.Bhise, who runs two wheeler garage in pune visits Vigyan ashram on every Wednesday to conduct the training.
- ii) DBRT students did fabrication of window grill for new building also made cover for solar panel. DBRT students are also busy in constructing Techno Park.
- iv) Poultry students started incubation of 199 eggs in egg incubator on 15th Feb.
- v) Nine hens died in wild attack. Two goats died due to infection. Whereas we have 2 new goat kids born this month.
- vi) Dairy Expenses : Rs.3827/-, Dairy income : Rs.6716, Insemination of Sonam cow on 7th Feb.
- vii) Goat buck service : 8 nos, Two buck sold : Rs.7500/-, Poultry : 300 birds FCR - 1.79
- viii) DBRT students put 'Pani Puri' stall near Jain Temple from 12th – 18th Feb and also during Pabal Yatra on 21st Feb. Amount of community service done was Rs.3000/-
- ix) Two brahmachari from ISKON visited VA for 5 days from 24th Feb to understand DBRT program and functioning of ashram. They are planning to start vocational program.



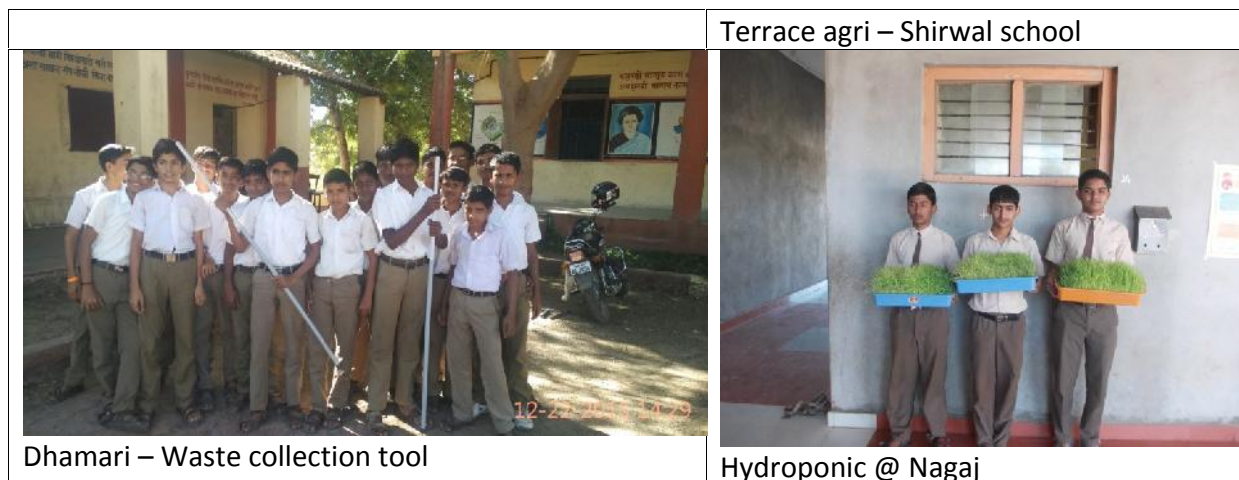
H] IBT Updates:- i] IBT in Maharashtra:

- a) Tools were purchased for 4 schools newly starting IBT program.
- b) 14 schools are willing to join IBT and get formal recognition for IBT program from DVET. Five schools already submitted their form.
- c) MKF : Ferrocement sheet and smokeless chulha was made in Khardi and Chale school between 11-14th Feb.
- d) Model schools glimpses :



Agri – Bargaon Pimpri





e) 10 students Pargaon IBT students attended 3D printing workshop on 7th Feb.

ii) IBT in Chattisgarh :

- Rajshekhar and sachin attended Meeting with Unicef and Rashtriya Madhyamik Shiksha Abhiyan Director (RMSA) in Raipur on 18th Feb to include IBT-MSFC as part of NSQF scheme in their annual plan.
- IBT classes are running in 17 schools in Dantewada and 5 in bijapur district. Some glimpses of IBT activities in CG.
- Meeting of CG team at Dantewada on 16th Feb to take review & plan future activities.
- We are working on identification of school for launching IBT in Jashpur. Meeting with school representatives, District officials was held on 13th Feb.



iii) IBT in Odisha :

- Mekhala team conducted shooting of IBT activities in Malkangiri, Nawapara and Nabarangpur IBT schools from 1st – 4th Feb.
- Review meeting of Odisha IBT team was held on 14th Feb.

F] Technology Development - Following projects are in progress

i) We have demonstrated our technologies in the science exhibition at GMRT,Kodad on 28th Feb (Science Day).

ii) TIED (Supported by Praj Foundation) fellows progress- On 16th February, a project review meeting was held at pabal, to review various technology development work under Praj foundation supported TIED project. Meeting was attended by Shri.Vinayak Kelkar, Shri. Ashok Kalbag and other project team members. Following are important points of discussions & decisions are as –



- Maintaining customer / field testing feedbacks for each technology separately for tracking series of developments.
- Consulting PRC members or any other technical consultant for technical difficulties in projects.
- Arranging trainings for developed technology dissemination by publishing them in appropriate channels.

iii) Ranajeet visited Paoolwat Foundation, Pasali village near Velha on 20th feb. Pasali is tribal area with very less livelihood sources from rain-fed agriculture. We are exploring possibilities of piloting technology based rural enterprises especially in food processing and animal husbandry area.

iv) Mr.Chatoupadhay a progressive farmer from Kolkata visited Pabal campus to learn on various advanced agricultural techniques like hydroponics, egg incubator, Pabal dome etc. from 21st to 25th February.

v) Prashant was able to print prosthetic hand in Pabal. He has successfully used voice sensor to operate fingers. Video on

https://www.dropbox.com/s/jakz6g6ijm0c5s2/VID_20151226_162200.3gp?dl=0

vi) Following modification done in rice de-husking machine based on customer feedback –

- a) Got 1hp gear box developed from vendor for power transmission.
- b) Developing grain cleaning system.

vii) Developed 5 high raise tree fruit cutter against order from STD in Himachal Pradesh.

viii) Yogesh visited Melghat on 28th Feb. He met DBRT alumni and discuss with Khoj members for training youth in Melghat on technology based enterprises.



ix) Mr. Atul Yadav completed 6 month volunteering with Vigyan ashram. He was on sabbatical leave from Infosys. He helped us in streamlining 3D printing training. His video of activities are on :

https://d3ldtt2c6t0t08.cloudfront.net/files/nczohocpa5ccy/2016/02/29/NRPO7WTWXE2K4TVR/SBKJPQEPOE/main_OUTPUT.tmp.mp4

x) Visit www.ruralstartup.wordpress.com for update about STED program.

G] Design Innovation Center (DIC) update

a) DIC purchase

1. Ordered CNC plasma cutter with bed size 1.5mx3m.
2. Ordered Kirloskar 10 kVA genset.
3. Purchase orders were released for purchasing Soil microbiology lab equipment's and 3D scanner.

b) DIC promotion in colleges: We are conducting introductory session in colleges to create awareness @ DIC courses. College of engineering, Avasari (11th Feb), Pabal college (9thFeb), Gramunnati agricultural college , Narayangaon (29th Feb)

I] Other tit-bits-

i) Visitors to VA : 790 people visited VA in Feb.

ii) Our DBRT alumni Mr. Sandip Takale, 1999 batch visited VA on 23rd Feb and shared his experiences with students.

iii) Donation to VA : We are thankful to all donors for their contribution and support.

पुणे मराठी ग्रंथालय, Pharma Machine India, Kusum soham Parivar – Ms Namraata Thakkar, Mrs. Arti Agashe, Mr. Niranjana Mehendale, Mr. Girish Deshpande, Mrs. Mohana Joshi, Mrs. Suhasini Bodke, Mr. Subhash Vaid, Mr. Ganesh Gurunathan, Mrs. Smita Patwardhan, Mrs. Minal Dighe, Mrs. Asavari Jog, Ms. Priyanka Mehetre, Mrs. Smita Kulkarni

iv) One day camp was held for 30 school students from Satara on 5th Feb.

v) Weather record – rainfall of the month – 0mm, Rainfall YTD – 480 mm, Max temp-33°C, Min Temp – 11°C, Humidity – 47%, Water height in well – 6.3 M

vii) Energy consumption record- Electricity unit – Three Phase - 1040 KWH, Single Phase – 784 KWH, Quality – No. Of interruption- 123 (45.21 hrs), Normal Voltage -86.61% High Voltage- 3.8% Low voltage- 2.93% No Supply-6.52%

viii) Diesel consumption for generator- 0 Lit, Two wheeler running- NA.



ix) Biogas consumption – Dung used- 868 Kg, Gas produced- 28.6 m³
xi Online visitor www.learningwhiledoing.in – New- 395 , Repeated –52 ,www.dsttara.org – New-1195 , Repeated –265 ,www.vigyanashram.com – New-1383, Repeated –433, www.vigyanashram.wordpress.com – Visitor –1006, Viewers-2406.

Data Report Link-

<https://drive.google.com/file/d/0B3-4RfsZ2K2OdzQwVjZoX3BjNUE/view?ts=56d92312>

(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:



Meeting with Khoj volunteers at Paratwada



Two wheeler maintenance training



Jamgaon school – Agri produce



Polyhouse extension at Vigyan ashram

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