

Vigyan Ashram Status Report

Volume 33 No 3

March 2015

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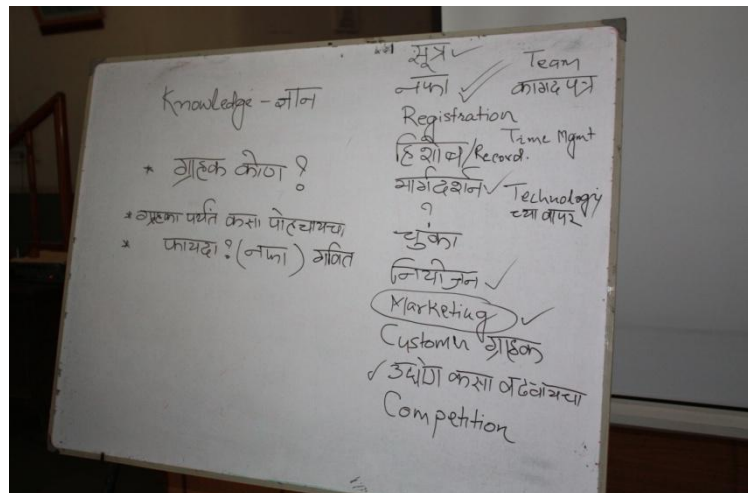
HRD Ministers visit to IBT school

Hon.HRD Minister Mrs.Smriti Irani visited Karli Pota cabin IBT School in Dantewada (Chhattisgarh) on 8th March. She was shown IBT dept and introduced to the various activities carried out under IBT. Karli Pota cabin is Girls School and implementing IBT program from last 4 years. HRD Minister discussed with the students about their projects.



Entrepreneurship Development training for rural youth

- a) A training program on 'Entrepreneurship Development' for potential entrepreneurs was held at JP Naik center, Pune from 23rd – 26th March. Resource person from M/S i-create India conducted session on topics such as business accounting, labor management, presentation skills etc. Total of 25 selected VA alumni & IBT instructors were invited for the training.
- b) A process of providing support to make business plan has started and Mrs.Vandana Chavan (IBT instructor- Shirwal) school will be the first to get loan to start her snack business.



- c) Michael and Prashant conducted awareness camps on identifying local resources and opportunities for rural enterprise for SHG's groups at Mankeshwar (12th March) and Amboli (11th March) (Junnar Block).
- d) 141 SHG members from Junnar ,Ambegaon,Rajgurunagar visited VA campus during 17th to 19th March. We introduced them with different opportunities in technology based rural enterprises. The visit was organized by Chaitanya foundation.

Short term Training courses started @ Balarampur Livelihood College.

We are providing all technical support and master trainers for conducting various skills training program at Livelihood College, Balarapur (CG). Following courses has started this month -

- i) Bag making – We are helping Livelihood college to establish a lather bag manufacturing and marketing unit in Balarampur. First batch of 12 SHG's members are trained in manufacturing different types of bags. Our trainer Mr.Pandharnath Kolhe is visiting them every month and trying to establish raw material supply chain, new design and developing local market for the product with district officials.
- ii) Banking & Accounting – Training program on Banking & computerized accounting is started on 27th March. It has 55 students enrolled for the course. Mr.Rahul Jagtap is conducting the course. We are following syllabus of MES scheme of Govt and students will get certificate from State Vocational Dept.
- iii) Training on basic Solar lighting installations – A training program on basics of assembly and installation of solar lamps started at Jokapat village from 27th March. Jokapat & its neighboring villages are still not connected to grid power. District administration has provided solar lamps to each household. We are training 30 youth to do basic installation, assembly and repair & maintains solar panels, solar lamps. Mr.Pankaj Shirke is going to work with this youth for next 1 month training period.



DBRT Project Example : DBRT students are required to carried out atleast 4 projects to complete their course. Following are some examples of the project undertaken by present batch.

1) Determining efficient fuel for our kitchen use

We have installed various new cook stoves in new kitchen building. Energy-environ section student Prakash Nayak carried out exercise to determine cost effective and efficient fuel for our kitchen consumption. During this study he has found out (Table below) LPG+ stove gives highest efficiency i.e 1 Kcal per 0.3 Gm of fuel used, followed by Kerosene (0.6 Gm / Kcal), pallets (1.7 Gm/ Kcal) and firewood+ chulla (2.5 gm / K cal). The price per calories produced is lowest in Kerosene stove (1.19 Paisa / K cal) so it's most economical fuel for us whereas pallet is costliest fuel in list.

Fuel	Quantity (gm)	Recorded k.cal **	Gm / K cal	Time taken for water boiling (min:sec)	Price/gm of fuel (Paisa)	Price/k.cal (Paisa)
Pallets	112	66	1.7	6:50	2	3.39
L.P.G	20	66	0.3	7:30	5.5	1.67
Firewood	175	70	2.5	9:00	0.6	1.50
Kerosene	40.5(50.ml)*	68	0.6	6:25	2	1.19

Note –

** - K calories calculated heating 1 lit water to 100° C on each fuel + stove combination.

* - Density of Kerosene is considered 810

Based on the above results, now we are preparing a matrix of fuel to use in our kitchen depending on availability of fuel and requirement of the recipe.

- 2) DBRT workshop students repaired 2 toilet blocks and soak pits to make them functional while learning RCC slab making and plumbing skills. The toilet repair work was essential for the forthcoming IBT instructor training.
- 3) In FAB-LAB while learning basic electronics and robotics skills, DBRT students worked on different projects like waking robot, solar roster, street light controller, water pump controller etc.



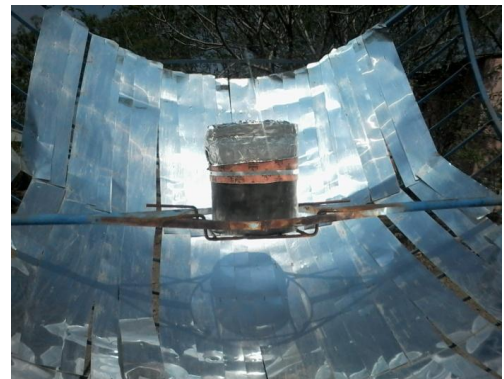
DBRT students learning calculation fuel efficiency



DBRT with their walking robot in Fab lab classes

Update on technology development –

- 1) Work on developing marketable model of Rice de-husking machine is in progress. Lokpanchayat from Sangamner has placed order for 1 unit of this machine. They want to produce brown rice from Indigenous rice varieties of AKOLE area of Ahamdnagar district.
- 2) After successful field testing of Bal Hirada cutter' (i.e Cutter / Pruner for High Raising Fruits), we have supplied six (6) units MPCST, Pune.



- 3) Lab trials were conducted for Tamarind de-seeder equipment. Idea is to develop low cost, probably hand operated tamarind De-seeding machine for village level traders/ tamarind farmers as target beneficiary. A prototype is developed with simple wheel cutter mechanism. The trials showed 20 % increased efficiency of de-seeding as compare to hand de-seeding.
- 4) Trials and modification are in progress for development of Oven for parabolic solar cooker. The circular shape oven prototype of 18.46 lit volumes can bake 1.750 Kg biscuits (cookies) in 30 min. We are getting oven temperature of 120°C.
- 5) Egg incubator (100 Egg capacity) delivered to MPKV Rahuri . Agriculture university will use this incubator for conducting research in poultry farming under RCDP project at Animal Husbandry department.
- 6) Work on Recirculation Aquaculture System (RAS) is in progress. The Feed conversion ratio (FCR) of 3.9 is achieved as compare to 1.5 % of targeted FCR. We are working on finding out probable reasons for higher FCR than expected so as to make necessary changes in improving it.



For more updates and details on – www.vigyanashram.wordpress.com

IBT Updates :

- 1) **Learnet3 , Panchmarhi (MP)** - Yogesh and Sachin participated in the Learnet3 workshop on 'Assessment and Evaluation' organized by Wildlife Conservation Trust (WCT) and Ekalavya from 13th-15th March. It was combination of project review plus discussion with experts on the topics assessment of learning outcomes among students.
- 2) Yogesh and Farzana visited Shirwal - IBT Model School (Satara) on 20th March to take review of IBT program. They have seen the workshop arrangement and tools purchased under Praj Model school project. They had discussion with the trustess and discuss steps to take the program to next level.
- 3) Kailas and Sharad conducted "Design Thinking" Workshops in Anavali (17-18th March) and Khardi School (19th – 20th March) in Pandharpur. Students of 9th class students in Anavali School made 'Writing Pads 'and in Khardi School learnt basic of plumbing while doing PVC fitting in School toilet blocks as a project.
- 4) Ganesh and Farzana did training need analysis (TNA) for forthcoming IBT instructor training. The IBT instructor refreshing training will be conducted in April-Je months for all IBT schools.



- 5) Sample IBT community services in March in Chattisgarh : i) Made a wash basin with 10 taps.ii) Made a 20mtr concrete road from Mess hall to Washrooms. Iii) 60 new wall fans fixed on wall. Iv) Repaired total school wiring system. V) Replaced 40 tube lights with new ones vi) Planted brinjal plants in a large area.
- 6) Yogesh and sachin attended meeting organized by Vice Chancellor of YCMOU on 30th Mar to discuss community college program and skills training.

New project Sanction : Vigyan Ashram has received donation for SPA Education Foundation and from M/S Eton Pvt Ltd for DBRT students scholarship. Our proposal for upgrading infrastructure facility for electrical section is approved by M/S Meggar (I) Pvt Ltd. We were introduced to M/S Meggar (I) Pvt Ltd by M/S Chhaya Strategic Advisors. We are going to purchase laser cutter machine and new electrical tools for DBRT students.

Department of Science and Technology (DST) conveyed their sanction to 2nd Phase core support to Vigyan ashram under its Science for Equity and Empowerment Division (SEED) programme. This support will be for the period 2015 -2018.

We are thankful to all our funding & project partners for their active support.

Other Tid-bits :

Visits and Visitors :

- i) Sachin visited Bhausahab Bhuskute Nyas (Piparia, Madhya Pradesh) on 15th March. He met Mr. Anil Agarwal. Anil is VA alumni working on construction of domes. He has built 100 + domes and have developed innovative products like Bamboo dome, Wall clock from dung, gift articles etc.
- ii) Mr. Uday Desai from Dr. K.R. Shroff Foundation, visited Vigyan Ashram on dated 23rd March, 2015. They wanted to start IBT programme in 3 Schools of tribal belt in Gujarat State.
- iii) Dr.N.J.Thakor(Dean, Dr.BSKKV college of agricultural Eng, Dapoli) visited Vigyan ashram on 17thMarch for discussion on various technology development project.
- iv) Mr.Yutaka Tokushima and Mr. T Masuda from FAB-LAB Japan visited VA campus on 17th March to understand work of VA and Fab projects. We also arranged their visit to Maker group at Infosys campus. We are planning to start project on making a prosthetic hand in Vigyan ashram.
- v) Agricultural instructor Millind Ohol resigned from Vigyan ashram to work in agricultural marketing sector. Advertisement for the new post was given in Agro-One newspaper.
- vi) Holi was celebrated on 5th and 11th March on VA campus. Weather record – rainfall of the month -11.29 mm ,Max temp-34.12 °C, Min Temp –19.03 °C , Humidity – 55 % , Water height in well – NA .
- vii) Energy consumption record- Electricity unit – III Phase -364, I Phase -1158.
- viii) Electrical Quality – Normal voltage : 75%, No supply – 9.7%, High voltage – 12.9%, Low voltage – 2.35%, Number of interruptions - 170
- ix) Diesel consumption for generator- 0 lit, Two wheeler – 335 Km.
- x) Biogas consumption – Dung used- 429 Kg, Gas produced- NA
- xi) Visitors– VA campus – 1105, Website -1648.

Data Report Link- <https://drive.google.com/file/d/0B3-4RfsZ2K2OWmg1MG5Bb3hhaGc/view>

Photo Gallery:



D-I-Y Lab activity



SHG Training at Pabal



Podium made by IBT – Shanimandal



Solar Oven tray



Yutaka and DIY team with Infosys Maker group



Entrepreneurship Development Training at JPNC