

Vigyan Ashram Status Report

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A] Inauguration of M/S Future Innovative System

DBRT alumni and our ex-staff Mr. Anil Gadhe started his engineering workshop M/s.Future innovative systems near wagholi (Pune). His workshop was inaugurated on 12th November at the hands of Dr.Sunil Agarwal (DST, Govt Of India). Dr.Anish N P (Scientist, SEED Division) and Mr.Hanbar Deshmukh (ARTI, Phaltan) were present on the occasion. Anil is associated with Vigyan ashram from past 8 years and worked on various technology development projects. He will manufacture and sale domestic egg incubator, rice de-husking machine, low cost terrace dryer and sanitary pad incubator developed by Vigyan Ashram through his venture. We wish him all the best for his business.



B] Mr.Ashok Jagtap started his welding fabrication enterprise **M/S Shri Sai Aluminum and Welding fabrication** workshop at Ashtapur Phata (Tal. Hawali Pune). Ashok is IBT workshop instructor at Hingangoan School. Besides technical training, Vigyan Ashram helped him to raise loan of Rs.1.5 lakh through Rang-De, crowd funding micro-finance.



C] Mr.Mahadev Chate started his dairy farming unit at Sakud village (Tal. Ambejogai Dist. Beed)

with two buffaloes. Mahadev is associated with Vigyan ashram from past 8 years as IBT instructor of Ambejogai School. We helped him to get Rs.80000.00 loan from Range-De.

D] FabEd training workshop for IBT students & teacher

'FabEd' a digital fabrication training workshop was conducted on 23rd to 25th November. The workshop was aimed to introduce advanced digital fabrication techniques like laser cutting, 3 D printing and basics arduino board programming. Total of 26 students from 5 IBT Schools participated in this 3 days workshop. They enjoyed task of fabricating different animal shaped robots & racing them!



We have conducted training workshop on 'using digital fabrication for festival decoration' at DIY lab Pune from 3rd – 5th Nov. Students made skylantern and controlled their operations by micro controllers.

E] Magic Dome at TEDx Pune

DIC and DBRT students prepared a Fab magical Dome. It was displayed during the TEDx event in Pune on 26th Nov. This dome is made with PVC pipe. Various small electronic projects using sensors like LDR, ultrasonic obstacle sensor, proximity sensors and touch sensors were fitted on the dome. It operates music and lights using arduino program. It became good demonstration piece of all skills learned by DBRT students in the Fab Lab.



F] DBRT Update

- i) NIOS invited Doordarshan National channel to make documentary on DBRT program. Shooting was done on 19th Nov under skill-India mission initiative. The program was broadcasted in Krushi-Darshan program on 8th December. Video link - https://youtu.be/N3l_PEu_mOk
- ii) We are helping CST-ISKCON wada trust to establish skill training center at wada . Students from shri.Chaitnya Seva Trust (ISKON Wada) underwent enterprise orientation training for 3 days from 7th to 9th November. They learned basic skills in agriculture, food processing, and electrification and fabrication department.

iii) Energy & Environment Dept -

Students in the Energy & Environment section did energy audit of VA kitchen as there department project. Following were important observations & action points –

- a) Low output from biogas plant – The 6 M³ capacity floating dome biogas plant produces average of 25 M³ gas per day in campus. It was found that due to winter season the efficiency of biogas unit was lowered down by 50 %. To overcome this issue following action were taken –



Order for Table from Pabal temple

- Increasing dung feeding frequency to 4 times / day for better digestion.
 - Adding solar cooker heated hot water in reactor for maintaining temperature in night time.
 - Monitoring chemical oxygen demand (COD) and pH levels of output slurry for optimum gas production.
- b) Higher fire wood consumption – Due to lower biogas & non-availability of kerosene, fire wood consumption was increased. We have decided to use solar parabolic cooker for cooking of rice, dal and curry. This has led to saving fire wood costing approximately Rs.60/day (Fire wood consumption decreased to 8 Kg from 45 Kg / day)
- iv) In Workshop department students fabricated seating chair and essence stick stand for Bhaivarnath temple of Pabal worth Rs.1864.00. They also designed & manufactured one hydroponics fodder production unit from PVC pipe (20 tray capacity) with net price of Rs.8000/-
- v) Students in agricultural department earned gross profit of Rs.31572.00 by selling 240 poultry bird and learning poultry farming techniques.
- vi) DBRT students completed demolition of existing classroom structure. They had done survey of the land and submitted drawing to architect.
- vii) Vigyan Ashram becomes approved training Partners for Bosch CSR-BRIDGE course.
- viii) Vishal and Pawan attended Tata Motor CSR review meeting on 21st Nov.
- ix) NIOS inspection team visited VA on 5th Nov for assessment of facilities and documentation.



GJ IBT Updates: –

i) IBT Maharashtra -

- IBT instructors training – A 'Refresher training program' was conducted for IBT instructors at Pabal from 16th to 19th November. The training was aimed to train senior instructors from IBT Schools for adopting new syllabus structured under NSQF. Also to introduce them with new technologies based community services like solar dryer, odourless toilet system, applications of electronics & sensors like LDR, ultrasonics sensors etc. Total 28 instructors from 10 School participated in the training.



- Following are highlights from IBT model Schools –
 - IBT students of Shree Devi Shantadurg High-School, Vadachapat (Sindhudurg) planted 400 Bamboo plants on 2 acre area in School with the support of district forest department. Forest department also helped School to built 2 Azolla beds and fish tanks to breed 'Gappi Fish'. Total cost of project was Rs. 20820.
 - At Bhandari Highschool, Malvan (Shindudurg) students of 10th std. built vegetable nursery on 30 ft. X 18 ft as their project activity. This nursery will be used for making seedlings for School garden & nearby farmers.
 - In Lokmanya Tilak vidyamandir, Chikhalgaon (Ratnagiri) students earned community service of Rs.35000.00 by selling various festival decorative made by IBT students at exhibition stall of Grahak Peth (Pune) during 23rd Oct to 2nd November.
 - IBT students Hirkani Vidyalay, Gawdewadi (Pune) constructed planter boxes for their School garden while learning brick lying and construction activities. Total cost of community service was Rs.10380.00



- ii) Open Education resources are made on & recycling of waste and estimation of animal age. They were tested with students of New English School , Anvali and Shri.Sitaram Maharaj Vidyalaya , Khardi (Pandharpur).
- iii) Meeting of IBT schools supported by Nalanda foundation was held at Narayangaon on 29th Nov. Yogesh & Sachin also visited Bori and Hivare Schools to take review of project.
- iv) We have helped Khiroda school in preparing presentation for Atal tinkering Lab application.



Portacabin Bijaur students making bricks

v) **IBT Chhattisgarh –**

- IBT Students in portacabin of Dantewada harvested 936 Kg's of fresh vegetables from their agriculture section and supplied it to the School kitchen.
- Students in portacabin Schools of Bijapur , made Tea table and bamboo dryer.
- Sachin visited IBT School in Jaispur on 23rd – 26th Nov to take review on project implementation and guide instructors in their School based enterprises. We helped food processing and egg incubation business to develop linkages with local shopkeepers.

More information about IBT news on : <http://ibtblogs.blogspot.in/>

HJ Update - Technology development & Design innovation centre –

- DST Experts team for tribal plan projects visited Bhimashankar project area of MPCC trust on 12th Nov. Vigyan Ashram provided technology to MPCC trust on NTFP processing, hydroponic and rice dehusking. All technologies were demonstrated on the field with local farmers of Ghotvadi village (Taluka - Rajgurunagar).
- DIC team gave trial of 'Bike driven oxygen generator' to Genrich Membranes Pvt Ltd (Bhosari). The bike driven pump successfully generated target 6 Bar continues pressure with 35 LPM flow rate and 38 % oxygen level at output value. The prototype is approved by client for further refinements and delivery.



- Ranajeet attended course on 'Genomics and Molecular Biotechnology' from 7th to 18th November at Botany Dept., Savitribai Phule Pune University. This course was conducted by SPPU as a part of Global Initiative for Academic Networking (GIAN) initiative.
- Power supply of Laser machine was replaced. It might have damaged due to short period power fluctuation,

I] Entrepreneurship Accelerator -

- Jilaramv Kudru submitted his loan proposal for starting carpentry business at Karli (Dantewada, Chhatishgarh). Jilaram is DBRT 2013 batch student, presently working as a carpenter in his village.

Other tit-bit –

- I. Mr.Dia Meghji is long time supporter of VA. He supported construction of staff quarter. He visited Vigyan ashram 19th November. He discussed with present aquaponics trial work. We are working for making viable business plan for aquaponics.
- II. Suhas visited SiL Laser on 18th Nov to inspect laser machine for AKGEC Fab Lab-Delhi.
- III. Yogesh attended meeting with Mukhtangan Exploratory on 9th Nov to plan workshop on innovative projects for their students.
- IV. We have got insulation sheets from Suzlon. They have discarded as scrap. We will use them to insulate our hostels.
- V. Donations – we are thankful to Mrs.Vidya Arvind Kasrgod, Mrs.Varsha Oak, Mr.Gurunath Kolhatkar, Dr.Natu,Dr.Sudhir Prabhu & SHRI INGALE SHAIENDRA VASANT for their donations to Vigyan ashram.
- VI. Advertisement for DIC course and fellowship was published in Sakaal on 15th Nov.
- VII. Weather record – Rainfall – 0 mm (Total 333.18 mm) ,Max temp-26.83°C, Min Temp – 18.20 °C , Humidity – 61.41 % , Water height in well – 6.08 Meter.
- VIII. Energy consumption record- Electricity unit – III Phase -429, I Phase -842. Quality of power : Number of interruptions : 110, Normal voltage : 84%, No supply : 6 %, low voltage : 5 %, high voltage : 5 %
- IX. Biogas consumption – Dung used-538 Kg, Gas produced- 25.53 M3.
- X. Total visitors to www.vigyanashram.com – 1707 (Visitor – 1046 Viewers- 661) www.dsttara.in : Total Visitors: - 794 (New-680 , Repeated –114)



Data Report:

https://drive.google.com/open?id=0B_Jk2xLqAXjcSHhvd3c2NlgtRGs

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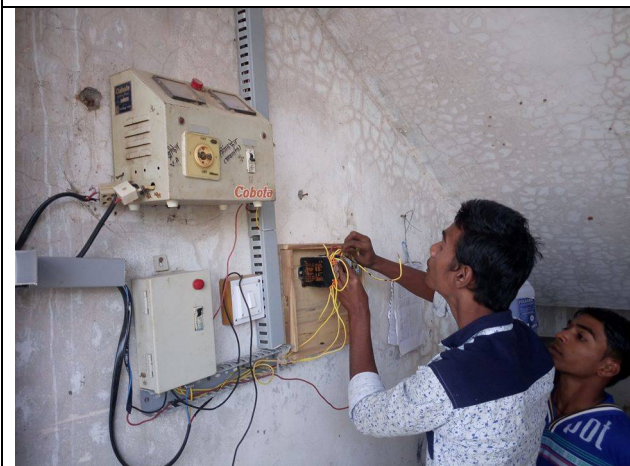
Photo Gallery:



IBT in Pusnar made Tea table



DIY project making Camp



DBRT students : Automation for agriculture project



Screen for Bal hirada developed for MPCC requirement.



DST team visiting Anil's workshop



Fabcamp at Pabal for IBT schools

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