

Vigyan Ashram Status Report

Volume 36 Issue 11

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A] Presentation @ world flora exhibition:

Ranajeet participated in Taichung world flora exhibition @ Taichung, Taiwan from 8th to 10th Nov. He gave presentation on 'Integrated & Intensified farming system' based on our experience in aquaponics, indigenously developed sensor-based automation, soil organic carbon improvement. Ranajeet was invited as guest speaker by Institute of Information Technology (IIT), Taiwan.

Ranajeet also used this opportunity to visit commercial aquaponic unit in Taipei. Mr. Michel has setup a Recirculating Aquaculture System (RAS) & Aquaponics farm on the roof-top of FABLAB-Taipai on approximate 2000 Sq.ft area. It's one of the leading aquaponics farm in Taiwan. He has adopted all advanced features like crab farming, indoor aquaponics, caviar (fish-egg for human consumption) farming with economic viability. This visit will help us in advancing our aquaponics farming technique.



Ranajeet with organizer of world flora exhibition



Aquaponic unit @ Taipai

B] Aquaponics Training - A two days training program on 'aquaponics farming' was conducted on 24th & 25th November. Training was attended by 10 participants to learn engineering, biology & economics of aquaponics farming technique. Participants were from farming, urban gardening, teaching and fish hatchery business background. We shared our learning over last 4 years in aquaponics farming. Our partner in aquaponics experimentation Mr.Suvadeep Sarkar (Nileekranti) & Mr.Mishra (www.jaljivika.org) were invited as guest speakers.



C] 'Make Something week 2018'

Vigyan Ashram joined 'Make Something Week' observed by Global Fab Lab Network from 23rd Nov to 2nd December. We have joined the event to celebrate '150th Year of celebrating Mahatma'!. We have organized workshop on different theme. Total 150+ participants (4 schools and 1 college) and Self-help Group women from Pabal participated in the workshop.

Details of participants and number are as below :

- i) Reuse your clothes - 17 (SHG women)
- ii) Make CAKE workshop - 20 (SHG women)
- iii) Repair and reuse - 20 (Bhairavnath Vidyalaya,Pabal)
- iv) Water Dripper from waste pet bottles - 40 (Dhamari High school)
- v) T shirt painting using Laser cutter - 20 (Bhairavnath Vidyalaya,Pabal)
- vi) Water Level controller - 20 (Nighoj High School)
- vii) Solar mobile charger making workshop - 20 (Mukhai High School)



D] Video Lessons – We are learning to make short videos on various technologies. We took help from 'Centre for Distance Engineering Education Program (CDEEP)', IIT Bombay. They guided us in making script for the Short videos. Media Team from IIT carried out video shoot for various topics from 1st to 4th Nov at Pabal. Video shooting of Kitchen gardening, composting, Grey water recycling, Amla candy (Osmosis), Use of pressure cooker were done. After editing videos will be available for dissemination from December.



Video recording of Kitchen Garden



Video recording of making Muramba

E] Entrepreneurship Accelerator

- a) We had a meeting with Mr. Diamond Meghji on 12th November, regarding commercialization of aquaponics farming. Mr. Meghji will be potential partner in the venture. Mr. Meghji also visited VA campus on 19th November to see progress of aquaponics experiment & other VA activities.



Mr. Diamond Meghji at ashram

- b) We have supplied at cost 10000 seeds of Vietnamese Koi (Anabus Cobojius) fish to Mr. Machindra Zoadge (Zodagwadi Pabal). Machindra has 16 Lacs lit plastic paper lined farm tank & started fish farming business with the seeds. We are providing him a technical consultancy & marketing support.
- c) SOW project @ Pasali (Velhe) Update –
- Baseline Survey for 23 intervention families and 12 control families were done. Health baseline survey for haemoglobin levels & deworming was also completed for 27 family members from intervention group.
 - We have started establishing kitchen gardens with families in Kumbhade village. So far 13 families have built their kitchen gardens.
- d) Agrowon article – Following Success stories of VA alumni were published in Agrowon in Nov. Mr. Vithal Shid (5th Nov), Mr. Pramod Pansare (19th Nov)

F] DBRT Updates:

- a) Engineering section: Windows and grills fabrication for new hostel was done by DBRT students. 22 Doors for new hostel were fabricated by students along with our alumni Ashish and Prakash.
- b) Wiring of new hostel was completed between 1st Nov to 19th Nov. We have used 2.5 sq.mm wires for rooms and 4 sq.mm wire for mains wiring considering additional load and planned solar system. Total 108



DBRT Practical

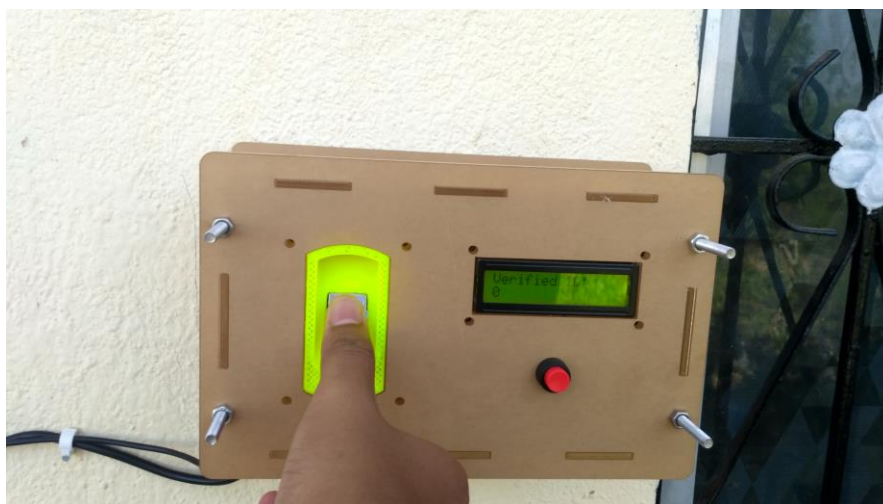
electrical points fitting were done.

- c) DBRT students had Diwali holiday from 4th – 11th Nov.
- d) Poultry farm update – Feed consumption – 336Kg , Egg produced –1820 (151.66 Dozen) , FCR – 2.21 (Little higher side) , Mortality – 3 birds (Total mortality since start 9 , Total birds in stock – 111)
- e) **Fabric academy updates:-** Harshada completed assignment on electronics on fabric and did 3D printing on fabric. Link:- <http://class.textile-academy.org/2019/harshada.raut/>
- f) SUPER20 : 7 girls joined for SUPER20 computer course on 10th Nov. Komal sambhudas and Priyanka Jadhav scanned 18 books of Mumbai University. Six girls are working on preparing Soil Health Card.
- g) Pooja participated in Wiki-Indic Wikisource Community Consultation 2018 at Kolkatta from 23rd to 26th Nov. She learned advance tools for making OCR and scanned document editing tools.
- h) Food Lab : Instant Pooran Mix (2kg); Nan Katai (4kg), Mix Pickle (5kg), Besan Ladoo (1kg), Pav (7kg)



G] Technology Development:

- i) Soil Health Card mission 2018-19 : In November month, 2859 health cards of Kendur & Hivare village are completed.
- ii) SPPU , DIC team visit – Dr.Shaligram, Dr.Pooja Doshi of SPPU visited pabal campus on 29th Nov to review progress of DIC program. Team reviewed various technology development projects under DIC project and also met DIC students to review impact & future prospect of DIC program.
- iii) **Micro-biology dept :** In November, sonal has completed order of 20kg *trichoderma viride* for private customer (Mr.Vinay Sambare). Production cost of making 20 kg *trichoderma viride* powder is Rs. 1500/- (Market price of 20kg powder = Rs.4000).
- iv) Sonal has written a proposal for “Development of microbial consortium for improving soil organic carbon using agriculture waste” under DST “WOMEN SCIENTIST SCHEME.



v) **Biometric Lock for Ladies hostel** : A biometric lock is made in the Fab Lab and it is installed in Girls hostel. Finger prints of all the girls staying on the hostel are enrolled in that system.

vi) Vigyan Ashram and Greeny entered into agreement to provide technical support for waste management problem in Bhor Municipal corporation. Dr.Arun Dixit and Siddhesh visited Bhor on 26th Nov to understand the requirement on site.

vi) **Makers Fair, Hyderabad** : Jaydeep and Siddhesh participated in Makers Fair, Hyderabad from 8th to 13th November. We have displayed various projects and technologies developed in Vigyan Ashram. Famous scientist and educationalist from Ladak Mr.Sonam Wangchuk visited Vigyan Ashram's stall.



F] IBT News :

i) Students of IBT @ Pusnar (Chattisgarh) made 10 small stool their kitchen.

ii) IBT @ Matwada (Chattisgarh) started making compost of approx.55 kg of kitchen waste per day. The school is residential school with 500 students.

iii) IBT Instructor Training Program : It was held between 20th to 22nd Nov. Total 47 instructors from 25 schools across Maharashtra has participated. Instructors learned about revised syllabus and evaluation process. They were also introduced with new technologies viz. DC fan, water level indicator, sprouting machine,

vertical bag garden etc. We have invited

external resource person to conduct session on ferrocement technologies, RCC construction and preparation of healthy snacks.

iv) Sachin participated in the 360 degree review meeting of Suzlon Foundation at Valsang and Nagaj on 27th Nov.



Hydroponic unit @ Nagaj farmer

v) IBT dept at Nagaj high school supplied hydroponic unit to local farmer Mr. Narayan Hankare (9702492877). His video link <https://drive.google.com/open?id=1A-3 YjQ1hZc9wmBdB86NDqVa5-5PMWY4>

vi) IBT school principals meeting of L&T supported schools were held on 26th Nov in Pune for 7 schools and in Pabal on 29th Nov for 8 schools.

vii) Innovation lab- Palnar : Total 62 students from 3 schools worked in the lab. They learnt @ Plumbing joints, mechanical tools like power hacksaw, files etc.

G] DIY Lab : Following workshops were conducted at DIY Lab.

i) "Fort Making and Decoration" on 3 & 4 Nov : 7 Students.

ii) "Fab Walker – Robotics workshop" on 13, 14 & 15 Nov : 7 Students.

iii) "Vinyl & laser Cutter" workshop on 16 & 17 Nov : 7 students.

iv) Workshop for Khelghar students :
Vinyl cutter & laser cutter" : 20 Nov (15 Students).
"Laser cutting & t-shirt printing" 23 Nov (15 Students)

v) Workshop on "Laser cutting & T-shirt prints" for students of PMC run 'Shivaji Tantr Madhyamik Vidyaniketan' on 27 Nov (20 Students).



H] Other tit-bits –

i) New Hostel construction – Work of flooring, wall plastering, plumbing , electrification , sliding window completed during November. New hostel building is almost finished and ready to move by mid of December.



- ii) 10 DC Pedestal fans are ordered for Ashram. 33 DC Ceiling Fans are ordered for the new hostel.
- iii) Yogesh gave inauguration talk at Fab lab-Nagpur on 4th Nov. Yogesh visited school for physically challenged in Yewala on 10th Nov to guide their skills training program.
- iv) Weather record – Rainfall – 23 mm : Total 325mm (June to Nov) ,Max temp- 37°C, Min Temp – 21°C , Humidity – 58 % , Water height in well – 7.3 mtr.
- v) Energy consumption record- Electricity unit – III Phase- 728 unit, I Phase- 1008 unit. Quality of power: Number of interruptions: 35, No power: 9 hrs. Normal voltage: 73.4 % , Low voltage : 2.17 % , No supply : 1.96 % , No data : 23 %
- vi) Biogas consumption – Dung used- 130 kg, Gas produced- 3.5 m³ (under maintenance)
- vii) Two wheeler usage : **XX kms**
- viii) Online visitors : www.dsttara.org - 789(New visitor – 690 Repeated-99) , www.vigyanashram.com – 1351(New visitor – 1118 Repeated-233) , www.vigyanashram.wordpress.com – 1519(Visitor-943 Viewers- 576)



Happy Diwali ! Lanterns in Ashram

Data Report :

https://drive.google.com/open?id=0B_Jk2xLqAXjcbnVFSVVGMMHJEU05MeWU5czFHckpaVjNra1Vn

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

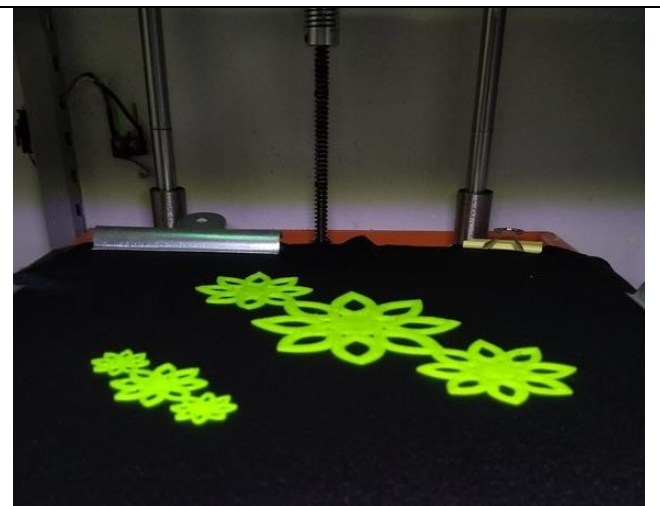
Our sites : www.learningwhiledoing.in , www.dsttara.in , www.vigyanashram.wordpress.com , www.vadic.wordpress.com , <https://ruralstartup.wordpress.com/>

(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, Suzlon foundation, Fab foundation, Dept of Science & Technology, and many individuals and foundations)

Photo Gallery :



Pusnar IBT school : Carpentry jobs



3D printing on Fabrik : Fabrik Academy



IBT Instructor Training



Seed Sowing @ farmers plot – IBT, Bori



Making Cake



Innovation Lab, Palnar



Visit of Dr. Shaligram and DIC -SPPU team



Yogesh @ inauguration of Fab Lab-Nagpur