

Vigyan Ashram Status Report

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A] 3rd annual conference of Fab Asia Network (FAN) :

Vigyan ashram co-hosted Third International annual conference of Fab Asia Network (FAN3) from 13th to 18th January along with Somaiya Vidyavihar (RiiDL) & Kerala Startup mission.

It was attended by representatives from asian countries viz. Japan, Philipines, Bhutan, Taiwan, Nepal, Bangaldesh, Singapore, Vietnam & India. Conference was held in Mumbai and Kochi and delegates visited Vigyan Ashram on 14th Jan. We displayed use of fab-lab for various rural technology development projects. We gave 20min

session on precision agriculture, energy & waste management, prosthetics, Fab lab in Education, Agriculture tools and equipment's. In line with tradition of Fab-exercise during the conference, all visitors and VA students performed Barchhi dance to celebrate Fab Spirit. Team of RoboGear(Pune) & several Makers from Pune also participated in Pabal event. Yogesh participated in the panel discussion on sustainability of Fab Labs on 15th January. Vigyan ashram fab lab team & DBRT team also participated in Makers-Mela at Mumbai. Seven of Vigyan Ashram's Fab lab member also participated in FAN3 events in Kochi.



B] Surgical strike on unclean Pabal bus stand by VA team

Every year , VA teams does ' Shramdaan' on 25th Jan in the memory of our freedom fighters. This year, we did some planning and decided to do turn around Pabal bus stand. Team cleaned / repaired and painted Pabal bus stand and public toilet. They did some civil construction work to repair ladies toilet and seating benches. When we started our work; people came forward and supported by giving paint / JCB service / water tanker. It took 3 hrs of co-ordinated hard work for cleaning, doing masonry work, painting etc and to change the look of bus stand. Villagers appreciated the work in Gramshabha on 26th Jan !

On 26th Jan, Republic day was celebrated with flag hosting followed by cultural programs. Student & staff enjoyed cultural program celebrations with full of JOY.



Pabal bus stand at 2pm on 25th Jan 2017



Pabal bus stand at 5.30pm on 25th Jan 2017

C] DBRT Update:

- **Bakery training course** – Twenty girls from Jaishpur district of Chhattisgarh joined VA bakery course



from 27th Jan. They will stay at VA for next 2 month and learn 'basics of bakery' skills. Training is conducted with the support of District skill development authority (Jaishpur district) and in partnership with Jeevan Jharna society (Jaishpur). VA is also become recognised VTP center to run course of 'BAKER' under hospitality sector for Chhattisgarh state government.

- Workshop department student, Vinayak Thanekar, won IDEA price for his project 'Brick picker'. He fabricated this simple & very useful device to reduce hardship & brick breakage losses on construction site labours. A detailed information is available @ <https://vigyanashram.wordpress.com/2017/02/07/brick-picker-device-for-construction-site-workers/>



Brick picker tool

- Students in Home & Health department volunteered in 'Health Check-up' for handicapped organized by Jain Temple on 22nd Jan. Total of 150+ beneficiaries from Pabal area benefited by this camp. DBRT students helped in health check-up of parameters like blood pressure, hemoglobin testing etc.
- Students in workshop department constructed a bench from used PET bottles to learn recycling of plastic waste. They also constructed visitor's car parking shed in campus from scrap material recovered from old classroom building.

- Plasma machine was getting tripped off in operation. Issue was solved by changing wiring to 16sq.mm cable and shifted the machine near power source to minimize losses
- Student of agricultural department Tejas Dhadave attended 1 day training workshop on Mushroom production @ agriculture college, Pune on 7th January. Tejas is cultivating mushroom in campus with different biomass available in Pabal his project.

More update on : <https://vigyanashramdbrt.wordpress.com/>

More photo of VA campus / DBRT on : <http://vigyanashramdbrt.blogspot.in/>

DJ IBT Updates: – a) IBT Maharashtra -

- I. Ms. Jasmine Gogia (Suzlon CSR head) & along with other CSR team visited Shri.Hanuman New High School, Valsang and Adarsh Prashala (Ghatnandre), Nagaj IBT Schools on 24th Jan as part annual 360 degree meeting. Team interacted with various stakeholders viz. school staff, students , parents etc and also appreciated students innovative projects like hydroponics fodder, solar dryer, nursery etc .



Valasang IBT : Visit by Suzlon team

- II. IBT Village Development Committee (VDC) meeting were conducted at Suzlon Foundation supported 6 Schools at Sangli region during 11th to 26th January. The aim of VDC meeting was to inform villagers about IBT program and appeal them to contribute for better implementation.

III. Under Praj foundation supported model School Project –

- Students from 9th std. at Sangmeshwar Madhymik Vidyalay, Pargaon fabricated vegetable solar dryer in the school. Drying capacity of this unit is 150 Kg vegetables / batch with cost of fabrication is Rs.3500.This dryer will be used in Home & health section for further experimentation.



Hydroponic @ Bargaon pimpri IBT

- Students in Hutathma Umaji Naik Vidyalaya, Bhivadi prepared various processed food item like Tilgul, Chikki etc on the occasion of 'Makar Sankranti' and sold them in School canteen.
- At Shri.Devi Shantadurga High School Vadachapath (Malwan) , students sold various food products at their village 'Jatra' by arranging a food stall. Students learn first-hand experience in sales & accounting while earning Rs.5600.00 as community service through this activity.

IV. Under L&T infotech (CSR) supported

program IBT tool & equipment set were procured for 4 existing IBT Schools. These Schools will arrange these tools as per IBT section layout. Similarly 4 new schools expressed interest in starting IBT program.

- V. Vishwas conducted 1 days training workshop on 'Designing & fabrication of simple solar dryer' at IL & FS supported, Dnyananda Vidyalaya, Narayangaon on 23rd Jan.

- VI. A 'Talent Hunt' competition was conducted in 5 IL&FS supported IBT Schools. Aim of this competition was to spot talent in music, literature, dance and art along with IBT skills. Total of 157 students participated. The students participated in performing arts have recorded their videos of 2-3 min, Engineering students have made tools for game and toys, like wise other have prepared. Selected students will be provided support to get additional training in their field of expertise.
- VII. Students from New English School, Anavli (Pandharpur) learnt recycling waste while constructing seating bench from used PET bottles. Total of 54 students from 9th standard participated in this activity.
- VIII. We have conducted survey of 5 schools suggested by Manav Vikas commission to start D-I-Y lab and Tod-Fod-Jod center. These schools are in Nasik, Yawatmal, Buldhana, Thane district.

b) IBT Chhattisgarh –



Stall @ Make in Porta cabin : IBT

Students from Dantewada IBT Schools participated in Rangeela Bal Mahotsav-2017 during 29th Dec to 10th Jan. IBT students participated in exhibition with food stall and technology exhibition. Local MP Shri.Dinesh Kashyap & state educational minister honourable Kedar Kashyap inaugurated this event and appreciated IBT program. IBT students also tested blood of around 320 visitors including Honourable educational minister to determine blood group. Students earned community service of Rs.25000 by selling various food products & blood group testing in exhibition.

E] Update - Technology development (Design innovation centre) :

- Trials started for 'Bio-drum' a self-rotating composting bin. Initial trial showed that it can reduce bio-waste more than 10 times to its original weight in 7-8 day's and convert it into ready to use compost. Bio-drum will be very useful for housing societies with 10-15 families.



Dome Dryer

- Geodesic Dome based 'Ambient temperature dryer' – DIC student Shubham Shembde & Tejasvini Tambe successfully tested geodesic dome based 'Ambient temperature dryer'. The aim dryer is to develop cost effective drying technique for heat sensitive raw material like spices, vegetables etc. It will also be useful to

dry vegetables in bulk quantity during winter using dry air. Initial trials on 'mint leaves' showed that, dome shaped dryers has advantage of natural dry air flow & temperature. Work is in progress to improve its efficiency & test results to variety of raw material.

- Plastic moulding machine : Volunteer from USA, Thanh & Suvarna made an injection moulding machine from the DIY instruction from open source design. Another volunteer Aniruddha Nippani (Dharmashala) also joined Thanh in the project. Read Thanh's blog : <https://annanyathemaker.wordpress.com/>
- Rangoli machine : Supriya completed Rangoli machine. It was displayed during FAN3.



Rangoli making machine
during FAN3 exhibition.

- Yutaka and Tomaki from Fab Lab, Japan visited VA after FAN3 on 19th and 20th Jan to discuss waste recycling and prosthetic project. We are working on for technical collaboration with them.
- Neelam, Shilpa and Mr.Ashok Mathur visited Jaipur on 27th -28th Jan to meet 'BMVSS' to demonstrate progress of prosthetic project. We got useful feedback and further direction for development.

More update about technology development projects on : www.vigyanashram.wordpress.com

More update on DIC students projects on : <https://www.mindmeister.com/756684001?t=63A2KkwqXc>

F] Update on skill trainings & Entrepreneurship accelerator program –



i) Self-Employment opportunity workshop - On 21st January , One day workshop on 'Self-Employment opportunities' was conducted in collaboration with Padma Mani Jain College of Arts & Commerce , Pabal. The workshop was attended by 51 students from 7 colleges from Shirur & Rajgurunager area.

ii) Tata 20 'Design Course' started with 17 girl students from Pabal College. These students will learn computer based 'design' tool & web publishing skills during next 2 months tenure.

iii) Entrepreneurship acceleration program – Under entrepreneurship acceleration program two of our alumni Suresh Bopate and Eknath Kokate (Both from Rajgurunagar) started their enterprise in production of 'Nirgudi Oil' and retail sale of fresh flowers respectively. Both of them have attended 'Entrepreneurship development' training workshop in December 2016.

iv) Camps @ DIY lab Pune – Under STEM program for secondary school students. Sarika conducted 3 days training workshop for 37 students. The workshop was based on 'Basics of digital fabrication & electronic'.

Students made 'Smart SAMAI' project as their learning activity. Vigyan ashram has collaborated with Pratham Education foundation to conduct DIY camps for under-privileged students from Pune city.



DIY camp @ JPNC

GJ FAB ACADEMY 2017

Fab-academy 2017 course started on 25th January 2017. It is 6 months program conducted by video



Fab Academy Video Conference Lecture

conferencing lectures and on the job assignments in the Fab Lab. There are 70 labs around the world with 250+ students are participating in this year's course.

VA is center of Fab Academy and we have 7 students undergoing the course. Two students came all the way from Chandigarh and two from IIT-Powai to learn digital fabrication. Suhas will be instructor for the course supported by Supriya and Suyog.

We have also received donation of \$10,000 from Fab foundation and Solidworks to establish computer lab equipped with design softwares. As a Fab Academy site, we got free software licences from Solidworks.

Our alumni Pradnya, got selected as Supernod to conduct weekly review of students from regional fab labs in India on behalf of Fab Academy Co-ordination.

H] Other tit-bit –

- I. Management committee meeting was held on 7th January 2017 at Vigyan ashram, Pabal. Important issues like progress on new classroom construction and technology development projects , issues with plasma cutting machine were discussed & decision were made in the meeting.
- II. Meghraj Chadchankar (Bsc Agri) & Neha Shinde (BSc. Biotechnology) joined DIC fellowship program under soil microbiology department.
- III. Four students from Dr.BSKKV, Agricultural Engineering College Dapoli joined VA for their 4 month duration In-plant training program.
- IV. A group of 80 engineering students from Singhgad Institute of technology, Solapur visited VA campus on 28th January to learn technology development work.
- V. Donation: We are thankful to Mrs.Ushma Shaha & Fab Foundation for her support to Vigyan ashram.
- VI. Yogesh received Adarsha Samajsevak Puraskar on 22nd Jan from Deshasth Rugvedy Brahman Sansth.
- VII. Weather record – Rainfall – 0 mm (Total 333.18 mm) ,Max temp-28.57 °C, Min Temp – 14.82 °C , Humidity – 62.06 % , Water height in well – 6.37 Meter.
- VIII. Energy consumption record- Electricity unit – III Phase -1254, I Phase -1039. Quality of power :
 - IX. Number of interruptions : 74, Normal voltage : 84.51%, No supply : 3.16 % , low voltage :0.77 % , high voltage : 1.56 %
 - X. Biogas consumption – Dung used-640 Kg, Gas produced- 44.44 M3.
 - XI. Visitors to Vigyan ashram campus : 524
 - XII. Online visitors to www.vigyanashram.com – 1424 (New – 988 Repeated-436) , www.dsttara.in : Total Visitors: 616 (New-526 , Repeated –90)



VA-MC members inspecting classroom construction

I] Data Report:

https://drive.google.com/open?id=0B_Jk2xLqAXjcdEdNek5OTnBZWjg

(Work of VA is supported by Asha for Education, Praj foundation, EATON Foundation, SPA Education Foundation, Megger (I) Pvt Ltd, Tata Motors, L & T Infotech, INDUSIA Endowment, Unicef, Govt of Chhattisgarh, Nalanda (LFS) foundation, Savitribai Phule Pune University, Lend-a-hand-India, Suzlon foundation,Fab foundation,Dept of Science & Technology, and many individuals and foundations)

Photo Gallery:



Republic day celebration @ VA



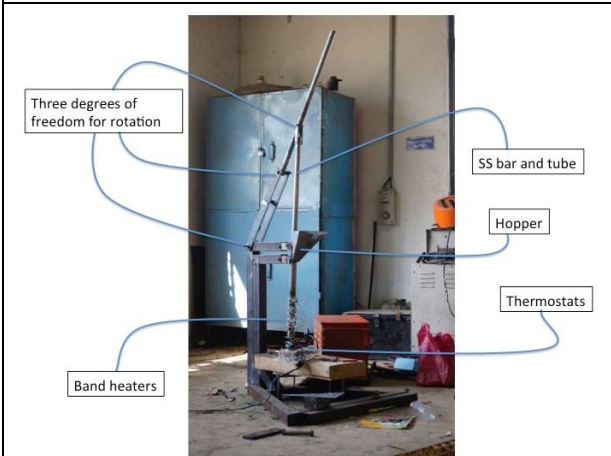
Terrace garden : IBT Shirwal



Bench from waste PET bottles @ Pandharpur



DIC students working in the lab



Injection moulding machine : Made in Pabal



Tejas with his mushroom cultivation bags.



Meeting on prosthetic hand @



Raspberry Pi based camera posting photo on twitter @ FAN3 – Project by RoboGear club

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