

Vigyan Ashram Status Report

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In this issue

- **Oxygen concentrator repair-café in collaboration with Maker Asylum**
- **Manufacturing & distribution of sanitizer distribution stand**
- **Diwali festival workshops at DIY lab**
- **Entrepreneurship Development Program on Pest control**

A) Oxygen concentrator repair workshop:

Vigyan ashram hosted repair-café workshop for repairing of 'Oxygen Concentrators' on 30th October 2021 at DIY lab Pune. The workshop was organized by Makers Asylum #M-19 collectives. We have received 20 oxygen concentrators for troubleshooting & repair. We could find out defects in them and listed down the solutions and parts required to fix them. Six DIC engineers along with six expert volunteers participated in the repair camp. It was good opportunity for us to consolidate our learning while making Oxi-Kit oxygen concentrator at Vigyan Ashram during second wave of COVID pandemic.



B) Fabrication of 'Sanitizer dispenser stands' for schools:

Schools are opening now and they need to follow COVID safety protocol. With the financial support of LTI First Step-CSR initiative, Vigyan Ashram has fabricated 500 Sanitizer dispenser stands for schools. We took the help of 'Climber Enviro Solution' (Katraj, Pune) in fabricating them professionally. Team of 4 DBRT students & instructor fabricating worked at their Katraj (Pune) unit during 11th to 20th October. They learned industrial metal fabrication skills like mass production using jig & fixtures, CO₂ welding, powder coating etc.



These stands will be distributed to schools as a part of LTI CSR initiative. A formal distribution ceremony was organized on 28th October at LTI office. Sanitizer stands were distributed in the presence of Mr.B.S Salija (Vice-president, corporate service), Nachiket Deshpande

(Team leader & COO), Mr.Wasim Shaikh (Senior executive-CSR) and Dr.Yogesh Kulkarni.

C] Diwali festival : DIY Lab

Do-It-Yourself lab is gearing up its activities for young makers ! Diwali festival is good opportunity for us to celebrate festival with Making.

We have conducted following activity sessions at DIY Lab in the month of Oct 2021.

- i) Solar Diya and Rangoli stencil making workshop : 9th – 10th Oct
- ii) Arduino based Project and Fort Making workshop : 16th and 17th Oct.
- iii) Lantern Making workshop : 23rd and 24th Oct
- iv) Solar Diya workshop for 38 girls from Niramaya Sanstha on 25th Oct
- v) A sky lantern making workshop was also conducted for DBRT students to make sky lanterns for Vigyan Ashram campus.
- vi) Digital Embroidery workshop was conducted at Pabal from 22-23rd Oct. Three girls from Pabal attended the same.



D] Technology Based EDP :

i) EDP training on 'pest control & sanitization business opportunities' : was conducted during 09th to 11th Oct

2021 at Vigyan Ashram, Pabal. It was hands-on training attended by 8 participants to learn skills in management of common household pests like rodents, ants, termites, bedbug etc. Participants performed tasks like sanitization, fumigation, bedbug repelling pest application etc on campus premises while learning safety, licencing & business aspects through hand-on activities. Industry experts Mr. Ashok Newase (FMCG expert), Umesh Gharat (Bayer India) and Mr. Pandurang Khamkar Entrepreneur (Yash Pest Control Services, Pune) were resource person for the workshop.



ii) **Webinar on business opportunities in 'Solar Businesses'** was conducted on 24th Oct 2021. Total 391 participated attended the webinar to learn basics of solar PV application & enterprise opportunities from successful entrepreneur Mr. Deepak Babar (Constro Energy Solution, Pune). We have planned a hand-on training session in month of November for interested participants.

iii) Yogesh supported 6 EDP beneficiaries to get Udyam Aadhar certificate (2), FSSAI Licence (2), Shop Act (1) and ,Pan Card (1) for their enterprises.

Hero of the month:

Mr. Tejas Dhumal : Tejas has started his Fabrication & FRP Door business in the name of 'Karbhari Glass & Fabrication Work' at Pimple Khalsa , Shirur, Pune. Tejas is EDP program beneficiary and has been taking hand-holding support through EDP program.

Mrs. Deepali Zodge & Team: Deepali & Team has launched their homemade food items making business in the name of 'SIMPRA' at Mira Road, Thane on the occasion of Diwali festival. SIMPRA is serving 9 food items for the Diwali festival. This group is receiving a hand holding support at each step of the business through the EDP program.



Hero of the month : Tejas

F] Design Innovation Centre (DIC):

- Dr.A.D Karve (ARTI) visited Vigyan Ashram on 7th October to guide DIC students. He presented his insights & experimental learning on various aspects of innovative farming techniques. He guided DIC students on various innovative approaches on yield enhancement & soil fertility improvement like feeding soil with cane-sugar for microbial boosting, feeding plant with live bacterial culture etc. It was very insightful & inspiring presentation for students with lot of new project idea for exploration.
- Vrushabh started a field testing of his e-bicycle battery pack. He tested it for 60 Km continues ride at variable load conditions. He is facing same difficulties with Battery Management System (BMS) and working on it to resolve issues. He has also started work battery charge indicator & GPS module with Neha in the Fab-Lab. For more information: shorturl.at/gwCFU
- Prathmesh completed assembly of shoulder calliper for his exo-skeleton project. He has used bearing to reduce friction at hinges and also given a MS frame support to springs for better movement. Presently he is testing new design for stability & load capacity.



Dr.A.D Karve interacting with DIC students

- Sonal, Kedar & Ranajeet conducted on-field farmers training on 'agro-residual composting' at Dhamari village on 7th & 28th October. Training was organized by farmers group 'Harit-Suvarnkranti Vikas Panlot Samiti' with 'Bhartiya Bhauudheshiya Lok Shikshan Santha' (Buldhana) under support of NABARD.



Farmers training at Dhamari

- Ashish tested his LPG controller for controlling oil temperature for Vada Pav vendor with vendor in Pabal. He is working on further improvement based on his feedback.
- Sonal & Prasad successfully completed 12-week online training under Youth Innovation Challenge in Gender & Climate Justice organized by Red Dot Foundation. Training was aimed to provide incubation support to innovative socio-technological challenges. Sonal & Prasad made business model pitch on 'grey water recycling system' & 'sanitary pad incinerator' technology on 22nd October in front of jury panel.



Testing of system with Vada Pav vendor

- Kedar, Sapana and Sonal are working on SOP establishment for tissue culture laboratory. Dr.Vinayak Lokhande (Assi.Prof. of SSC college, Junnar) helping us in adopting SOP's by providing hand-on training & technical support. Kedar and Sapana also working on isolation of microbial culture for agro-waste compost prepared by using microbial consortium made by azolla inoculation.
- Mr. Kalbhor and Mr. Abhijit Joshi from SI Group Ranjangaon visited Vigyan Ashram to discuss about problem in their ETP plant. We are planning to provide them service through DIC.
- Mr.Spencer Chamberlain did his internship with VA almost 10 yrs back. He did a project on rural transportation. Now he is working with General Motor in UK. He wants to revisit his project idea. A preliminary meeting to conduct survey to test present need analysis was conducted on 9th Oct. We are planning to engage few DIC students if we get positive response from preliminary survey.

G] DBRI Course and Pabal campus update:

DBRT course students completed first section of their course, now they will go to other section. On 1st October, eleven (11) new students joined course. They are from tribal belt of Thane district (Maharashtra). Three students joined 'basic electrician' short term training course.

Following are some of the highlights of campus activities-

- Workshop section: As a community service work, workshop students prepared 20 cement concrete blocks for solar panel installation @ Mukhai school. They earned Rs.2000 as a labor charge for their work.
- Energy & Environment section: In this section students, learnt working of smokeless chulha, biogas unit while performing regular repair-maintenance work. They also fixed 3 new electrical plug points for tissue culture laboratory and learnt repairing of online UPS & diesel generator. Total value of community service was Rs.14750 during October.



Students fabricating sanitiser stand

- Maintenance of 6KVA inverter system was carried out through service engineer. Electronics card failures occurred due to heavy surge load.

- Home & Health section: Students of H & H section, learnt basic personal health & first aid, while performing tasks like blood group identification, pulse rate & hemoglobin measurement etc. They also prepared Tamarind sauce (12 kg), Peanut chatani (2 kg), cookies (5 kg), moringa fortified chikki (1.5 kg), millet ladu (1 kg) and bread (31 kg) while learning basics of sugar syrup preservation & bakery skills.
- Agriculture & Animal Husbandry: In this section, students learnt basics of farming skills like seed treatment, soil analysis, fertilizer dosing etc while planting chilli, coriander crop on 1 gunta area. Vaibhav successfully incubated 50 poultry eggs with 81 % hatching rate for trial in new egg incubator machine. He is testing incubator machine & also learning its operation as his future enterprise.
- In computer & sewing lab, students learnt 123-CAD design software to practice basic designing skills. They also learnt hand embroidery, sticking skills while preparing handkerchiefs, masks, pillow covers etc
- **Video Content development program -FRP**
The E.M.R.C department of Pune University gave first draft of FRP content video. Prasad tested draft videos with 20 DBRT students and collected their feedback. From the testing, we realized that we need to add more information on chemicals used in FRP process. Feedback was shared with EMRC team and we are planning to modify the content.



Electric appliances repair

HJ IBT Maharashtra & Uttar-Pradesh updates:

IBT Maharashtra:

- IBT engineering section students of Sevadham Trust Anudanit Ashram School (Malegaon) built a 'cable & post' type seedling on 600 Ft² area in their school campus. Nursery will be used for raising fruit & forest trees for near-by farmers. Students used scrap steel pipes to fabricate frame & covered it with green shed-net. Cost of construction is Rs.30000. Villagers appreciated efforts made by school administration & students for creating this infrastructure in the school.



Nursery fabricated by IBT students

- Energy & Environment section students of Amboli School, repaired a grinder-mixer from a villager and earned community service of Rs.150/-.
- Students IBT school in Kendur village, repaired the classroom benches.
- In Moi School, students repaired 5 ceiling fans of their classrooms. The fans required regular overhauling like bearing, capacitor replacement etc. Students learnt functioning of fans while repairing & installation of fans.
- Online paper diya making activity was conducted on 23rd October. LTI volunteers conducted this activity for students. Students learnt making of 'Paper Diya' and decorating it with water colours. Total 204 students from 15 IBT schools and 41 LTI volunteers participated in activity.



Lantern making workshop

IBT Uttar Pradesh:

- In a process to launch IBT program in 60 schools, we have completed orientation training of **School IBT coordinator's** in 13 districts. Total 52 school teachers attended the training. The aim of the training was to introduce IBT program and inform them about role of the coordinator with hands on training. Due to pandemic, instead of bringing all teachers at one place and to conduct training. We have decided to visit each district and conduct training of teachers in the respective districts. Team of Sharad, Prashant, Ganesh and Sachin visited all districts and conducted the training.
- IBT program review meeting was conducted online on 28th Oct. Officers of Education and Labour department were present for the meeting. Program implementation issues and next plan of action was discussed.
- School Principal Training program completed for all 60 schools from 15 districts.



Training @ Composit School. Nandgram, Gaziabad

I] Mentoring ATL Labs :

Chattisgarh

Priyanka visited ATL labs in Chattisgarh between 14th – 27th Oct. She also visited Samagra shiksha and Unicef officials during her visit. Purpose of visit was to understand ground situation and plan for Off line activities in CG. Following online 6 sessions were conducted for ATLS in Chattisgarh.

Date	Session name	YouTube link
02.10.2021	DIY session on solar diya making	दिवाली स्पेशलः सोलर दिया
08.10.2021	Clock making with Arduino	आर्डिनो की मदद से डिजिटल घड़ी बनाएँ!
12.10.2021	Virtual ATAL lab Tour session	Virtual Tour of Atal Tinkering School
16.10.2021	Basic of 'circuit board' designing with Tinker-CAD	टिंकर कैंड सॉफ्टवेअर का उपयोग करके सर्किट डिजाइन सीखें
19.10.2021	E-yantra children on motor controlling using Arduino	आर्डिनो के माध्यम से मोटार ऑन/ऑफ/ कंट्रोल करे टिंकर कैंड पे
22.10.2021	Making noise meter using Arduino	Check noise decibel using sound sensor

Andhra ATL :

We have started program to support ATLS in Andhra Pradesh from 25th Oct. Yogashri joined VA on 15th Oct and she will operate from Vijayawada. We will provide online and off-line support to ATLS in Chattisgarh. First planning meeting with Samagra Shiksha and Unicef officials were held online on 21st Oct.

J] Crises in IIE Board of Trustees

As reported in the Status Report of Sept 2021, at present there is no board of trustees on Indian Institute of Education. This means, IIE is not able to operate its bank account with its trustees as signatories. Since all project funds of Vigyan ashram are held at IIE. It has created a cash flow problem for Vigyan ashram activities. There is no clarity from life members and people following up the matter with various legal authorities. We are not able to get estimate of time required for resolution of the crises.

Vigyan Ashram's management committee had a meeting on 30th Oct. Meeting was attended by Mr.Vijay Kumar, Mr.Mahendra Rajgude, Mr.Ashok Kalbag, Dr.Yogesh Kulkarni. It is decided to make every effort to continue programs at VA at the same pace. Various measures to maintain cash flow were discussed. It is also decided to appraise the situation to all donors and request their support. It is decided that Director-VA will talk to senior life members of IIE and appraise them about difficulties in operations and request for early resolution of crises.

K] Other tit-bit:

- Sachin visited SBI – FCRA branch in New Delhi on 28th Oct. It was in connection with resolving issues in activating net banking of FCRA account of IIE.
- A team of 36 professors Marathwada Mitra Mandal's Engineering college visited pabal campus on 23rd October to study design innovation centre project activities.
- A book 'विज्ञान आणि तंत्रज्ञानात हीरकमहोत्सवी महाराष्ट्र' was published by Granthali Publication. It is about scientist and organisation contributed in the development of Maharashtra between period 1960-2020. It has article on Vigyan Ashram and its contribution in development of Maharashtra.
- Yogesh conducted session on zero budget activities for Gandhi fellows in Jhunjunu, Rajasthan on 5th Oct.

- v) Marathi writer Mrs Vandana Atre and Mrs Shobhana Bhide visited Vigyan ashram on 25th – 26th Oct. They are writing a book in marathi on Vigyan Ashram.
- vi) Kojagiri was celebrated on 19th Oct with camp fire and Antakashari.
- vii) Weather record – Rainfall of the month -171.64 mm (Total: 577.29 mm) ,Max temp-39.00 °C, Min Temp – 15.00 °C , Humidity – 92% , Water height in well– 4.20 Mtr.
- viii)Energy consumption record- Electricity unit – III Phase - 1833 units , I Phase import- 259, Solar generation- 2142. DG used – 06.00 Hrs. Quality of power : Number of interruption-50, Normal voltage : 83.60%, No supply :11.85%, low voltage :0 % , No supply: 4.54 %
- ix) Animal Husbandry section update – Milk production – 583.0Kg, Poultry –40 birds (1.5 kg each with 3.18 FCR)
- x) Biogas consumption – Dung used-620 Kg, Gas produced-25.59 M³
- xi) Online visitors: www.dsttara.org – 820 (New visitor-743 Repeated- 77), www.vigyanashram.com – 947 (New visitor-759 Repeated- 188)



LJ Data Report: shorturl.at/hyzY0

(Work of VA is supported by Asha for Education, Praj foundation, EATON Foundation, L & T infotech, SPA Education Foundation, INDUSA Endowment, Unicef, Govt of Chhattisgarh, Savitribai Phule Pune University, Suzlon foundation, Dept of Science & Technology, and many individuals and foundations)

Photo Gallery:



Priyanka conducting ATL teachers training at Bemitarra, CG



Dry fodder treatment @ VA



DBRT students preparing cement block for solar panel installation @ Mukhai school



Digital Embroidery workshop



DBRT Students with fabricated stands



EDP supported entrepreneur Ms Deepali Zhodage doing business at Mira Road in the brand name of SIMPRA



SI team visited DIC



EDP Trainee of Pest Control training.

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www.vigyanashram.com