

# Vigyan Ashram Status Report

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### A] Diwali festival: Joy of making and selling

IBT students from schools in Maharashtra and U.P made various gift articles, decorative lights, food products etc for sale during Diwali festival. Students collectively earned more than one lac rupees during one week of sale. They made 9000+ Painted Diya, 570 + packets, 800+ lanterns, 40+ decorative lamps, 140+ bottles of perfumes, and 50Kg+ Diwali faral (sweets). Students arranged exhibition of products with the help of their teachers. This activity gave them practical training on communication, arranging exhibits, customer interaction, record keeping etc. Few IBT schools supported by LTI also put up their staff at LTI Office in Pune on 11<sup>th</sup> Oct 2022.

### DBRT Celebration @ Vigyan Ashram:

We have celebrated achievements of DBRT students in providing community services during last 4 months. A Monday story session was conducted on achievements of this batch so far. During last 4 month students had provided community service of more than Rs.2,74,744/-.

Most of the students went on Diwali holidays from 21<sup>st</sup> – 30<sup>th</sup> Oct. Those stayed on the campus, decorated ashram with beautiful rangoli, oil lamps (panati), sky lanterns & decorative lamps during Diwali days.



Diwali Sale @ various places



Diwali @ Vigyan Ashram

## **B] State level workshop for Atal tinkering Labs @ Vijayawada**

Vigyan Ashram along with Unicef and Samgra shiksha organized three days workshop for Atal tinkering lab coordinator's and District science officers (DSOs) at Vijayawada from 12<sup>th</sup> – 14<sup>th</sup> Oct. Thirty ATL co-ordinator teachers and 26 DSOs participated in the workshop. Workshop was inaugurated by Commissioner of school education, SAPD of AP Samgra shiksha and Director, SCERT. Ms Deepali Upadhyay from Atal Innovation Mission presented innovation eco-system of ATLs in the country. Dr.Yogesh Kulkarni & Mr.Kishore Gaikwad conducted the workshop covering topics like Design thinking, Electronics and 3D printing. A review meeting of 20 model ATL schools was held at SCERT on 11<sup>th</sup> Dec.



Inauguration Session of ATL workshop



Hands on workshop activities @ Vijayawada

**C] Fab-School @ Mukhai :** A project review visit was conducted by Dassault Systems - La-foundation team on 6th October. La-foundation has been a project partner for 'Fab school for fab village' implemented at Mukhai school. Mr.Hemant Gadgil & Mr.Anurag Shukla of La-foundation visited installation of grey water recycling, hydroponics, solar water heater & mini fab-lab facilities.



La fondation team @ Grey water recycling system @ Mukhai



Entrepreneurship program on Milk processing

## **D] Entrepreneurship Development Program (EDP) update (VATF):**

- Skill training & EDP training on 'Milk Processing and Dairy Products Manufacturing' was conducted on 15<sup>th</sup> & 16<sup>th</sup> October 2022 at Kunjir foods Pvt Ltd (Urali-Kanchan, Pune). Training program was attended by 18 aspiring entrepreneurs from Pune, Ratnagiri, Raigad district. Dairy processing entrepreneur Mr.Dada Kunjir, Mr.Ranjeet Shanbhag, Mr.Yogesh Onkar conducted hand-on training sessions on making of dairy product like curd, panner, khawa, lassi, butter milk, mithai etc along dairy processing business enterprise.

- The EDP awareness camp & field survey visit was conducting on 17<sup>th</sup>-18<sup>th</sup> October in 9 villages (Sakhar, Ghawar, Chirmodi, Gunjawane, Fansi, Awali, Datavadi, Lavhe, Mravane) of Velhe block. Total 80 farmers attended awareness camp to learn advance farming practices in dairy & poultry farming. Team also conducted field-survey to understand local resources, scope for technology intervention & scope for enterprise development. Training was organized in collaboration with 'Raintree foundation' Pune. Mr. Ganesh Pingle and Mr. Yogesh Onkar were the resource person.
- A financial linkage support was provided to Mr.Prashant Bohade. He is running a garment manufacturing unit. We helped him in collaborating with funding partner to scale up his activities. Sai Garments is targeting production of 2500 shirts/ month.
- Yogesh provided enterprise registration support for 2 enterprise (Udyam Certificate-1 & FSSAI Licence-1).



**Hero of month:**

**Mr. Dinkar Shinde** started his Nursery business by the name of "Shinde Nursery" At -Vetale Tal-Khed Dist.-Pune. He has invested around Rs.70000.00 for enterprise.



**Dinkar Shinde**

**Mr. Prashant Kamble** started a computer & photo-copy centre enterprise by the name of "Aaradhana Computers and xerox center"



**Prashant Kambale**

At -Kurundwad Dist.-Kolhapur. We are giving Training, technical & Mentoring support through EDP program from last 2 year.

**E] Technology development & Design Innovation Centre (DIC) updates:**

- Digital fabrication workshop: A 3 days training workshop on basics of digital fabrication was conducted during 10<sup>th</sup> to 13<sup>th</sup> October. Workshop was attended by 5 engineering students to learn application of 3D printer, laser cutter, basics of coding, sensor application etc.
- RF ID based goat-weighting scale: Suhas & Basil installed new version of 'RF ID based goat weighing



**Fab Camp**

scale. The new version has weighing capacity of 300 kg loading with RF ID tags for individual goats, LED display. Weight record for individual goats can be assessed through ESP32 based Graphical User Interface (GUI) based webpage or mobile application. Details of project can be found on –  
Electronics interface- <http://fabacademy.org/2021/labs/vigyanashram/students/pavan-mahadeokuchar/project/FinalProject.html>

Weighing scale fabrication-

<https://vadic.vigyanashram.blog/2021/08/07/smart-weight-measurement-and-management-system/>

GUI -

<https://vadic.vigyanashram.blog/2022/09/25/setting-up-of-a-server-and-a-gui-to-easily-send-and-receive-data-to-an-esp-32/>

- Automated umbrella: Sumit built a prototype of 'rain-sensor' based automated umbrella. It is good educational exercise for ATL students with application of sensor, coding, 3D printing, servo etc.
- Kartik completed his 3-month internship tenure in soil microbiology lab. He worked on 'fortification of bio-gas slurry' with magnesium, Potassium Solubilising Bacteria (PSB), Phosphate Solubilizing Bacterial (PSB). He found nine-fold increase in total potassium with PSB + KSB fortification. We have planned field experiments for verification of results.
- Basile Pasquel completed his 2 months internship tenure in the Fab-Lab. Bhagwan & Roshani completed their 1-month internship at soil-microbiology lab.
- Pierre-Jean Martin (EPFL University, Switzerland) joined for 2 months internship in Fab-Lab. He will be working on calibration of 'temperature – humidity' data logger for climatic controls in polyhouse.



Goat weighing scale



Felicitation of Basile Pasquel

- **Masters in Design for Distributed Innovation (MDDI)** : Vigyan Ashram is now a node for conducting Master's program MDDI. It's a distributed learning course conducted by Institute for Advanced Architecture of Catalonia (IAAC) and Fab-City foundation (<https://fab.city/the-foundation.html>). We are aiming to train graduate students in applications of design & innovation methodology with respect to sustainable rural development. We have 1 student registered for the program this year. Course will be conducted in blended (online-offline) mode for next 10 months tenure (Oct 2022 to July 2023).

#### **Fab-Lab for tribal area update:**

- Students of Narmadalaya Fab-Lab made and sold 450 sky lanterns using laser cutting machine during Diwali exhibitions. Fab-lab also conducted hands-on workshop for 31 students in their vicinity.
- Palghar fablab conducted three orientation workshops for local school students during 4<sup>th</sup> to 7<sup>th</sup> October. Total of 150 students attended the workshops to learn various digital fabrication tools.

### **F] DBRT student learning updates (VATF):**

October was month of festivals. DBRT students celebrated Dassera on 5<sup>th</sup> October with 'Shatra-Pooja' of tools-equipment's & Kojagiri evening with camp-fire & flavored milk on 9<sup>th</sup> October. There was Diwali vacation from 21<sup>st</sup> – 31<sup>st</sup> Oct. Following are highlights of the month -

**i) Energy & Environment section:** Students completed electrical fitting work for Mr.Sidhesh Sakore (Dhamari), Mr. Mahadev Tambe (Khairnagar) and Mr.Vishal Jagtap (Pabal) and 2 IBT schools against order. They also learnt installation of water-pump while fixing open-well submersible pump for polyhouse fogging system, making of LED decorative lights & lanterns for Diwali. Total value of community work was Rs.50839.00

**ii) Workshop section:** Workshop students continued fabrication of IBT school furniture work. They fabricated 7 sets of school furniture including kitchen desk, welding & electrical table, tool box etc. Students also carried out installation of furniture & tool boxes at three school. Students also fabricated window-grills & constricted agriculture-section building. Total value of learning activity was Rs.69338/- with labor cost of Rs.8289/-.

**iii) Agriculture & Animal husbandry section:** On 10<sup>th</sup> Oct DBRT students planted 'onion' crop. Students documented their learning in form of video-  
<https://www.youtube.com/watch?v=Uo0561liyu8&t=5s>. In poultry farm, student recorded mortality of 52 birds due to heavy rains & domestic cat attack. They fetch FCR of 2.5 for total weight gain of 35.5 Kg during October month.

**iv) Home & Health section:** Student learnt making of Kaju-Katali (5 kg), Cookies (1.5 kg), Chikki (9.5 kg),

Tamarind Sauce (5 kg), Instant Pooran (7.5 kg) and bread (22 kg flour) while learning community service of Rs.6765.00 during Dasera-Diwali festival season.

**v) Computer section:** Students learnt 123 CAD designing software while preparing engineering drawing for IBT school furniture. They also learnt basics of 'desktop publication' skills while updating personal blogs. Their day-to-day learning activities can be found on -  
<https://alumni.vigyanashram.blog/dbrt-batch-22-23/>

**vi)** A Yoga training camp for adolescents was held for DBRT students during 1<sup>st</sup> to 15<sup>th</sup> October. A daily 1 hour session was conducted by Dr.Chandrakant Deshmukh (Village-Loni). Yoga activities were designed to improve mental and physical health. We are thankful to Dr.Deshmukh for his voluntary efforts. Short Video of session on

- <https://youtu.be/Cg8njLPyKEg>



**Brick wall construction of Agri classroom**

brick-wall construction of 300 sq.ft wall in newly



**DBRT : Onion Plantation**



**Yoga Class**

## G] IBT Maharashtra & Uttar-Pradesh updates (VA & Stars forum):

- **Inauguration of IBT program at Tulapur (Pune):** Inauguration function of IBT program at Dhamavir Sambhaji Maharaj Vidyalaya, Tulapur (Pune) was held on 12<sup>th</sup> Oct. It's one of 4 schools supported by TATA Technologies Ltd under its CSR initiative. IBT lab was inaugurated by Mr.Ajit Habbu (Manager, Corporate sustainability & CSR) and Mr.Siddharth Yawalkar.
- **IBT Instructor training program:** A 3 days hands on IBT instructor training program was conducted between 14<sup>th</sup> to 16<sup>th</sup> Oct at Swami Vivekanand Vidyalaya, Asade (Pune). Training was attended by 9 newly joined instructors from 6 schools supported by Schaeffler India & Mahle Engineering Services (CSR initiative).
- IBT Engineering students of Amboli school helped local meson in installation of toilet seat while learning basic masonry (PCC) & plumbing skills. Students worked in a team to install toilet-seats in 4 toilets in the school premise. Total value of their work was Rs.14000.00.
- Students in Home & Health section of Navlakh-Umbre (Pune) arranged a blood-group testing camp in the school. Students tested blood groups for 260 students in the school.

**IBT Uttar-Pradesh (Stars forum) :** First draft of 'Handbook for teachers @ Learning While Doing program' in hindi language was received. Necessary corrections were made by respective subject matter experts.

## H] DIY Pune updates :

Students at DIY Lab made several designs of sky lanterns, rockets. Beside this DIY Lab team is engaged in designing activities for ATL labs.

Video of Rocket launch : [shorturl.at/fgjnq](http://shorturl.at/fgjnq)

Smart Sky lantern : [shorturl.at/kDKN1](http://shorturl.at/kDKN1)

DIY Lab You tube channel : [shorturl.at/bpN23](http://shorturl.at/bpN23)



## I] Other tit-bits:

- i. Marathi Wikipedia team completed scanning of 'Mahabharat Khand-2' book with 458 pages.
- ii. Two girls students joined for Wikipedia digitalization work.
- iii. Geetanjali Sen from Prince Waterhouse Cooper (PWC) visited Pabal campus on 17<sup>th</sup> October to know DBRT program. They want to sponsor tribal youth from Nandurbar region for DBRT course.
- iv. Weather record – Rainfall of the month – 167.97 mm (Total: 935.77 mm), Max temp-32.00° C, Min Temp – 14.00° C, Humidity – 60%, Water height in well– 3.35 M.
- v. Energy consumption record- Electricity unit – III Phase -1587 unit, I Phase import- 143, Solar generation- 1950.00. DG used – 04.45 Hrs.
- vi. Animal Husbandry section update – Milk production –893.0 Kg, Poultry FCR- , Goat service : 6
- vii. Agri production: Cucumber: 44kg
- viii. Biogas produced-40.97M<sup>3</sup> (Dung used- 832Kg)
- ix. Online visitors: www.dsttara.org – 763 (New visitor-687, Repeated-76), www.vigyanashram.com – 911 (New visitor-733 Repeated-178)



Visitors to Vigyan Ashram

## J] Data Report: [shorturl.at/jvzKY](http://shorturl.at/jvzKY)

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## K] Photo Gallery:



ATL review meeting @ Vijayawada on 11<sup>th</sup> Dec



Fab camp @ Narmadalaya



Mulberi plantation @ Vigyan Ashram



Dassera Tools Pooja



Despatch of school furniture order : DBRT team



Furniture @ IBT school by DBRT



Furniture @ IBT school by DBRT



Furniture @ IBT school by DBRT

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