

Vigyan Ashram Status Report

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A] Inauguration of ASMITA: A women led tailoring section

ASMITA unit is formally inaugurated on 6th May at Pabal. ASMITA is a women led fashion designing, garment manufacturing & training unit with advanced sewing machineries. It is established with the financial support of MAHLE Engineering Ltd. CSR. The unit was inaugurated at the hands of Mr.Ashutosh Desinthpande, Mrs.Gadkari, and Mr.Pritam Ghadge and Women Self Help Group (WSHG) members from Pabal village. ASMITA team displayed various garments & decorative item manufactured by them during past 2 months. We are very thankful to MAHLE CSR for their financial support for this unit and other programs of Vigyan Ashram.



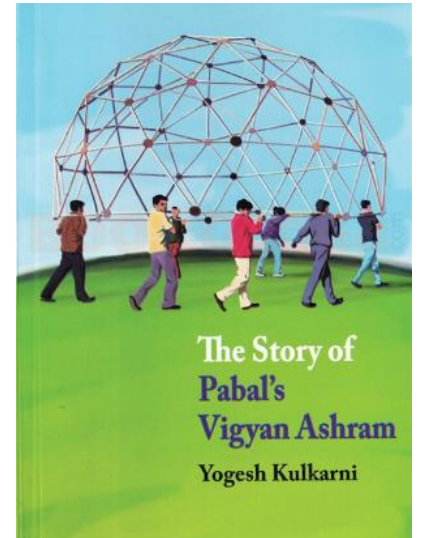
Women team completed order of 50 T-Shirts, 19 frocks and other garments with community service earning of Rs. 22,610/-. They formed their Self-help Group and opened their bank account and WSHG registration as tailoring enterprise.

B] 'Story of Pabal's Vigyan Ashram' in English is published



We have got very good response to Marathi book कहाणी पाबळ च्या आश्रमाची written by Dr Yogesh Kulkarni. Now Samakaleen Prakashan has published its English translation 'Story of Pabal's Vigyan Ashram'. The book is written by Dr. Yogesh Kulkarni and translated by Mrs. Rita Kalbag. The book is now available for offline & online sale. You can

scan given code to purchase the book or online from Bookganga.com
<https://www.bookganga.com/eBooks/>



C] Vocational Project development workshop at Vigyan Ashram

NCERT has developed text book 'Koushal Bhodh' for vocational education (VE) for Grade 6 and Grade 7th. Implementation of these books has started in CBSE board schools. SCERT – Maharashtra will also be implementing vocational education from Grade from 2026. Therefore, Vigyan Ashram team has decided to implement VE on pilot basis in selected schools in Maharashtra from this year. Vigyan Ashram team has worked on preparation of implementation during school summer holidays.

We worked on development of 'Teacher's manual' in Marathi for making projects of vocational education. In the month of May, we tested new project activities with students' from Bhairavnath Vidyamandir School (Pabal), Sumati Balvan school, Katraj and Zilla Parishad Primary School, Hivare (Pune).



D] Introduction to Basic Technology (IBT) program updates:

i) STEM concept identification workshop (online) for teachers from Jharkhand state:

2-day teacher's workshop was conducted for Kastubha Gandhi Balika Vidyalaya (KGBV) teachers on 14th & 15th May. It was STEM difficult concept from curriculum identification workshop conducted in online mode. Expert trainer from Vigyan Ashram facilitated the workshop and activities for class 6th to 10th std. were identified. Training was attended by 36 teachers and we have together identified activity linkages with school's curriculum (Science & Maths), time allocation to activities, tools required etc concepts.

ii) Preparation for 3-D Seed the Future Entrepreneur (STFE) competition

Vigyan Ashram is mentoring 25 schools from Maharashtra, Andhra-Pradesh, Telangana & Karnataka state for Seed the Future Entrepreneur' competition 2024-25. It's a national level competition conducted by Dassault Systems (La-Foundation) and Atal Innovation Mission (Govt of India) with the aim of inculcating 'design-thinking & entrepreneurship' mind-set in high-school students. Out of 260 participating schools from all over India, result of top 10 innovative project was declared in the month of May. We are proud to have 3 IBT schools from



Maharashtra and 1 ATL lab school (ZPH School Dharmavaram) from Andhra-Pradesh state in the final round. Students from New English School (Dhamari, Pune), Pt. Jawaharlal Nehru Vidyalaya (Nirgudsar, Pune) and Vitthalrao Patwardhan Utkarsh Ashramshala (Waghera, Nasik) will compete for top 3 positions. We are very thankful to Dassult Systems (La-Foundation), MAHLE Engineering, Schaeffler India Foundation, TATA Technologies and UNICEF for supporting IBT & Atal Tinkering Lab (ATL) students for competition.

iii) Selection of new school: Archana visited 4 schools in Pune district region for on-field inspection. We are selecting schools for implementing Vocational Education program from next academic year. The schools will be supported by Schaeffler India – CSR support.

E] Diploma in Basic Rural Technology (DBRT) updates:

i) 'Introduction to DBRT course' camp for prospective student

We have organised 5 days boot camp for potential DBRT students from 12th – 16th May. Objective of the boot camp is to help students to make informed choice of DBRT course. This will help us to reduce dropouts from the course. Boot camp also gives us opportunity to interview students and shortlist them for 1 year residential course at Vigyan Ashram. Camp was attended by 24 students from Maharashtra and Gujrat state to 'Learn by doing' approach of VA. Students participated activities like installation of solar water heater, making of peanut chikki & cakes, basic electrical fitting & electronics. They were also introduced with life at campus, meditation and daily routine. We hope to see many of them to join DBRT course starting from 10th July.



ii) DBRT promotion for Batch 2025-26 admission's: Vigyan Ashram team visited many rural schools & grass root NGOs to explain different career opportunities for students. Following are some of the field visits –

- Ranajeet, Ganesh & Vishal visited tribal belt of Dhule (Shirpur, Shahada) and Nandurbar (Akalkuwa) district during 2nd to 6th May.
- On 7th & 8th May, Kailash visited Balgram SOS (Alibag) and Ashram school (Mangaon) in Raigad district and conducted awareness camp for residential students.
- On 20th May, Bhanudas conducted hands-on activity camp for residential students at Palvi institute in Pandharpur (Dist-Solapur).
- During 27th to 29th May, Kailas visited IBT schools in Pal, Lohara, Khiroda in Jalgaon district. He also visited Keshashrusti NGO campus for awareness on skills training opportunities.



Meeting with parents and students

iii) NIOS board examination for students of 2022-23, 2023-24: National Institute of Open Schooling (NIOS) conducted diploma certification examination for DBRT course on 24th & 25th May and 3rd & 4th June at Pabal. Examination was attended by 14 students from 2022-23 & 2023-24 DBRT batch. Students from Madhya Pradesh, Gujarat and Maharashtra state appeared for examination.

iv) On campus DBRT students learning activities:

Energy & Environment section: In this section, students installed earthing pits for new polyhouse and food processing section. They also completed electrical fitting work in kitchen storage room and installed new exhaust fans in polyhouse. Students also learnt repair of mixer-grinder. Total value of community service was Rs.13,075/- including students earning of Rs. 2,490/-.

Workshop section: Workshop section completed wall painting work of boy's hostel. Team of 3 students completed painting work of 3000 sq ft area. Saurabh and Ayush completed fabrication work of door and window frame, fixed roof sheets & completed partition wall work of kitchen storage room. Total community service value was Rs.26,940/- including students earning of Rs.8,740/-.

Home & Health section: In food processing section, students processed tamarind to make sauce (5 kg), raw tamarind pickle (3 kg), Moringa chikki (2 kg), and dried onion (21 kg), Tomato powder (12 kg). Students also processed 15 kg bakery flour for bread making and supplied tea to guests. They learnt making of Dhupsticks and Agarbati. Their total community service value was Rs. 9630/-.

Agriculture & Animal husbandry section: We got 460.75 mm rain in this month. It is highest rainfall in month of May probably in past 40 Yrs. Rains dropped scorching heat of May but also increased chances of diseases in plants & animal-husbandry section. Students worked on regular farm maintains activities and harvested around 240 kg of green fodder, collected 60 eggs from poultry section and 396 kg of milk in dairy farm.

Niramay Kishor Shakti leadership workshop: 4 DBRT girl students & instructor Ms. Arti attended 'Kishor Shakti Leadership Shibir (camp)' during 6th & 7th May. It was residential workshop organized by Niramay (Pune) for training adolescent girls in mental & physical health, life skills, carrier guidance & leadership qualities.

Summer internship students' updates: 28 students are undergoing summer internship at various



Girls at Niramay Shibir

enterprises. These students placed at rural enterprise to get first hand-working experience in metal fabrication, milk processing, sliding windows, electrical fittings etc.

G] Entrepreneurship Development Program (EDP) update (VATF):

Training / workshops:

- Ice-cream & Kulfi making: A 2 days workshop on Ice-cream & kulfi making was conducted at Pabal campus during 3rd & 4th May. The hands-on training sessions were conducted by Suraj Ice cream industry A/p-Jarkarwadi (Tal-Ambegaon, Dist – Pune). Training was attended by 6 potential entrepreneurs. Participants made 4 types of ice-cream & 3 type of kulfi during the training. Priyanka & Aditi from Vigyan Ashram guided participants of FSSAI licencing, social media marketing.
- On-field training to WSHG members: Ganesh & Ranajeet conducted 2 days on-field training workshop for Women Self-Help Group (WSHG) members associated with Vishwa Mandal Seva Ashram (Shirpur, Dhule) and AFARM (Pune). Training was aimed to motivate WSHG members to start technology-based enterprises in their villages. On field workshops were conducted in small tribal hamlets (Joyda, Panakhed, and Okwad) near Shirpur town. Participants were introduced with opportunities in backyard poultry farming, food processing, basic electrical etc. enterprise.
- Dr. Yogesh Kulkarni & Ganesh Pingale visited 'Yuva Hai Hum - Shram Sanskar Shibir' on 26th may. The shibir was organized by Middle Path Foundation and Adim Sanskriti Abhyas va Sanshodhan Kendra (Ambegaon) at Faloda village near Bhimashankar. Yogesh conducted sessions on career opportunities for youth in rural development and entrepreneurship. Around 22 tribal youth were present.
- Webinar on opportunities in 'fire safety & extinguisher enterprise' was conducted 24th May. VA alumni and successful entrepreneur Mr. Prateek Gajare (Shri Guru Services, Pandharpur) guided participants on various aspects of this enterprise. Webinar was



Ice creme and Kulfi making training



Training @ villages near Shirpur



Shram Sanskar Shibir @ Falode, Bhimashankar

attended by 25 participants. EDP section is planning to organise a hands on workshop for interested participants in the coming days.

Mentoring support & field visits:

- On 5th May, Ganesh visited 'Satpuda Fabrication & Welding Works' an enterprise of Mr. Rajesh Padavi (DBRT student Batch 2018-19) at Molgi village in Akkalkuwa block of Nandurbar district.
- Ganesh visited Mai-Dairy farm at Chikhali on 10th May as 'on-field' incubation support. The dairy is started by Mr. Prashant Anadkar, participant of 'Dairy product manufacturing' training.
- Ganesh attended Vaan-Dhan Kendra training workshop on 28th & 29th May conducted by Shabri Mahamandal (Tribal Welfare Department) Nasik. Workshop was aimed to introduce standard practices in accounting & administration record by Vaan-Dhan groups. We are supporting 4 Vaan-Dhan groups in Junnar region of Pune district.
- EDP section provided licensing support to 4 new enterprises (1 Shop-act, 2 FSSAI and 1 Udyam certificate).



Mr Prashant Anadkar - Mai Dairy

Hero of the month:

Mrs. Tanvi Gharatshe started "Tanvi Flowers & Event Management" imitation jewellery & flower décor enterprise at Mumbai. She has attended 'event management training' workshop last year and also getting social media marketing support.

HJ Technology development updates & Design Innovation Centre (DIC):

DST-SUNIL project updates:

Polyhouse climate control & pest prediction system:

- We have received 10 units of temperature-humidity and light intensity data loggers from E-Yantra lab (IIT Mumbai). Data loggers are developed by team of Sidharth Kulkarni at E-Yantra Lab. We have collaborated with them for polyhouse farmer's data collection work. Presently these units are installed at Pabal campus for field testing & data collection.
- Suhas fabricated 13 new data loggers (7 WIFI+ 6 GSM enabled) for field installation. He has also fabricated 5 units of temperature-humidity display units for farmers.
- Tejaswini and Abhijit completed polyhouse thermal balance calculation study for deciding CFM (Cubic feet per minute) for exhaust fans. Theoretically polyhouse (390 ft²) captures 12.8 kJ/s energy at 1000 W/m² solar radiation with requirement of 8000 CFM exhaust capacity. At actuals, the measured heat captured with automated data loggers showed 2.99 kJ/s heat capture with 2000 CFM air exhaust. Team has installed 4000 CFM exhaust fans on



East side wall at 3 different heights to record its effectiveness in temperature control. The data will help in Artificial Intelligence (AI) based smart climate control system of polyhouse.

- Ganesh & Pranit installed temperature-humidity data loggers at Tarapur (Pandharpur, Dist-Solapur) Mahakrushi Farmers Producer Organization polyhouse on 17th May. This group has 10-acre export-oriented capsicum plantation in polyhouse farming. Similarly, on 26th May, one unit data logger also installed at 1 polyhouse farmer at Rajgurunagar (Dist-Pune) for recording live data.



Black-Soldier-Fly (BSF) based composting & poultry farming:

- Arun & Lt. Gen S.S. Hasabnis visited Black Soldier Fly (BSF) based bio-waste processing startups at Vellore (Tamil Nadu) and Bangalore (Karnataka) on 21st & 22nd May. Vellore based venture is started by Mr. Rohit Korvi and Mr. Anup T.V. They are producing BSF larvae by using waste fish-food and have also mastered BSF breeding system. At Bangalore, Mr. Abhis processing 5 MT/day food waste with BSF and also exporting BSF-frass (compost) to UAE. We have discussed possibilities of mutual collaboration and technical support.
- Mahesh processed 33.68 MT waste at Rajgurunagar Municipal Council (RMC) to produce 85.7 kg larvae. These larvae used in breeding chamber & poultry feeding trial at Pabal campus.



Solar Dome Dryer:

- A one day training on solar drying technology for Non-Timber Forest Produce (NTFP) was conducted at Molgi village (Tal- Akkalkuwa, Dist- Nandurbar) on 5th May. Training was a part of DST-SUNIL project of developing low-cost bulk solar dryer for red-chilli and tribal farmers. Training was conducted by Prasad & Ranajeet, while discussing various aspects of solar dryer selection as that of design parameters, drying quality, cost of drying etc. Total 34 tribal farmers attended the training. The farmers are associated with Molgi Parisar Seva Samiti and Research in Environment, Education and Development Society (REEDs Foundation). Farmers shared their cost breakups and quality concerns while selecting solar dryer. Solar dome dryer was also demonstrated to farmers during training. It was decided that farmers will test this dryer for Mahua fruits, raw mango and local vegetables. Farmers also expressed need for flat-bed polycarbonate sheet based solar dryer for de-centralized drying.



Other research-fellow projects:

- Aditya, worked on standardization of 'Jawar-Flex' making protocol. He found that jawar grains soaked for 6hr, gain 42 to 45 gm water. These soaked grains then steamed for 45 min & dried further for 25 % moisture retention produced best quality flex. Flex is made by using press machine provided by Agrozee Organics (Pune). He is working on SOP refinement for commercial production.
- Radhika and Pranit completed hydroponics (NFT) lettuce trial with application of Sea-Weed extract (made by Raft-tech solutions Pvt Ltd). They compared sea-weed extracts effect on growth & yield of lettuce crop in 45 days trial. The experimental plants received 1 dose of sea-weed extract along with water soluble fertilizers and its result was compared with control plants. Results showed no significant difference in vegetable (plant height) growth of plant but seaweed extract applied plant showed 43.43 % more yield (harvesting of 9.312 kg in control Vs 13.357 kg in experimental). Based on results 1 more trial is planned for testing replicability of results in the same system.
- Sayali completed diurnal curves, temperature and ACi responses, stomatal light and VPD curves data points for capsicum and cucumber plants by using LICO-6800 photosynthesis analyser. There is total 33 curves for each species of plant. She is working on collection of data for remaining 8 plants.
- Manasvi Nirvan (Education), Vaidehi Aher (B.Tech. Electronics- IITB Living Lab), Viraj Meher and Pradnya Darekar (M.Sc. Botany), joined the DIC internship program.
- Under DST-TAPRISE project, Swapnil completed first review for Foetal Stress Monitoring (FSM) technology developed by Sethu Institute of Technology (Madurai, Tamil Nadu). Technology is very useful in detecting foetal growth-related deformities and stress among pregnant women. He is gathering information on scaling-up challenges, support requirement etc.



Fab academy updates:

Suhas visited Forge network labs at Coimbatore (Tamil Nadu) from 5th May to 13th May 2025 to guide fab-academy students on project fabrication and assignments checking. At Vigyan Ashram, Fabacademy students completed their assignments on system integration, wild card, intellectual property and project development. They also finished most part of their final project. In the month of June, students will present final project work along with other assignments.



Fab Academy project : Automated curtain

HJ Atal Tinkering Lab (ATL) & DIY lab update:

ATL updates:

- In the month of May, two summer boot camps were conducted during 1st to 8th May at ZPH School Dharmavaram and ZPHIGH SCHOOL, NIDAMANURU (Andra-Pradesh). Total 52 students 17 teachers and educational department officials participated in these camps. Students learnt basics of electronics, robotics & coding, simulation through project activities.
- During 24th to 30th May, technical team from Andra-Pradesh and Telangana participated in the activity design & documentation workshop at Pabal campus. They worked on developing various tinkering activities, documenting it with curriculum linkage and testing it for students' acceptance. These activities will be included in the 'Teachers Guide Book' developed for ATL labs.



DIY Lab updates:

- Aarav Gaikwad (Grade-10 student) completed one month summer internship program at the DIY lab. His learning can be found on blog link - <https://aaravgaikwad47.blogspot.com/>
- Membership students learnt various tinkering skills through projects. Details of their learning & project available on - robotic arm (by Manas Zende- <https://manas27072010.blogspot.com/>), a Bluetooth controlled robot (Daksh Sukhadia - <https://dakshsukhadia04.blogspot.com/>), Weather monitoring device (Shaurya Kapse- <https://shauryakapse.blogspot.com/>)

JJ Other tit-bits:

- i. Reshma attended 1-day training workshop on 'pickle making' at Krishi Vigyan Kendra, Narayangaon on 8th May. She learnt making of vegetables & fruit pickles along with quality control, packaging and marketing skills.
- ii. A team from Bajaj Foundation visited Vigyan Ashram on 14th May. They visited Dhamari school to understand IBT program. They also visited RSVC at Agro Rangers.
- iii. Team of 6 engineers & makers from Rwanda FabLab Network and JICA experts visited Pabal campus on 14th May. Aim of visit was to



JBF team visiting Agro rangers - RSVC

explore fab-lab activities and Vigyan Ashram educational philosophy.

- iv. Ranajeet & Yogesh attended 'Vocational Education 'Textbook Development Team' meeting for 9th & 10th grade (TDT) during 15th to 17th May at Bangalore. The committee appointed by NCERT is working on text book development.
- v. Suhas Labade resigned from his position of Program officer (DST-SUNIL) and Fab-Lab manager on 31st May to scale up his startup venture. Suhas worked with Vigyan Ashram for long span of 12 Yrs and worked on many innovative projects in the Fab-Lab. We wish him best for his future endeavours.
- vi. Tejaswini Chaudhary resigned from 'DIY lab instructor' position from 27th May. She worked with Vigyan Ashram for 3 yrs. We wish her best luck for future assignments.
- vii. Weather record – Rainfall of the month – 460.75 mm (Total: 1057.19 mm), Max temp- 37.00° C, Min Temp –19.00° C, Humidity – 65.47%, Water height in well– 8.05 M.
- viii. Energy consumption record- Electricity unit – III Phase- 1340 units, I Phase import- 2188 units, solar export III Phase – 285 units, Solar export I Phase- 15 units, Solar generation (off-grid)-102 units, DG used – 02:30 Hrs, Biogas- 36.73 m3 (dung used-734.6 kg)
- ix. Animal Husbandry section update – Milk production – 396 Kg (Gross profit Rs: 4277/-). Poultry egg produced -60.
- x. Online visitors: www.vigyanashram.com – 1132, Campus tour visitors: 134.



All the best, Suhas!

KJ Data Report: <https://tinyurl.com/y6jj5ha9>

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Photo Gallery:



Asmita : Training in progress



APMS Dharmavaram -Semi-finalist for Seed The Future Entrepreneur competition



ATL team at Pabal for content development



DIY lab activities



Project : Wood working



Project : Preparing natural cosmetics



UP Chief Ministers visit to LBD stall at Lokbhavan, Lucknow on 26th May 2025



LBD video shooting @ LBD school, Bulendshahar

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