

Vigyan Ashram Status Report

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A] Technovation-2022 Exhibition

Technovation-2022, an exclusive science and technology exhibition of IBT students project was held on 5th March @ Do-It-Yourself Lab (DIY Lab), Vigyan Ashram, Kothrud, Pune. Total 30 selected projects from 15 IBT schools were exhibited.

Exhibition was inaugurated by Mr.Sunil Lokhande (Principle Director - Facilities and Administration, LTI). Prof.Dr. Pooja Doshi (DIC, Savitribai Phule Pune University), Mr.B.R.Shimple (District Vocational Education Officer), Mr. Wasim Shaikh (Manager -CSR, LTI) and Mr. S.D. Gokhale (Administrator, IIE) were Chief guests of program. Mr.Pratyush Panda (Head - CSR, LTI) joined remotely.

This was first event after COVID lockdown and therefore everyone was very excited to present their work. Projects were evaluated by jury members based on project utility, application of technology, community need analysis. 1st price was won by 'Automatic Roster' (Shri Dada Maharaj Natekar Panchkoshadharit Vidyalaya, Chikhali), 1st runner-up was 'Onion Stem and Root Cutter' (New English School Dhamari) and 2nd runner-up and online viewer's choice award was won by students of Adarsh Vidyalaya, (Amboli) for 'Transformer safety kit' and 'Grain Filler Machine' respectively.

Projects are Exhibition is also available online on <https://technovation.online/>



B] 18th March : Art Day # Remembering Amma

18th March, 5th Anniversary of Mrs.Mira Kalbag (Amma). We remembered her by observing Art Day on the campus. We learned to dance on this day. Two choreographers from Planet dance academy (Pune) were invited as a trainer. All Students & staff (total 125+) participated in the training. At the end of the day, there was a performance on the Bollywood tune of 'Jai Ho..' and' ..Dil to jiddi hai'.

In the morning, we paid tribute to Amma by practising group meditation and sharing her memories.



C] KISAN -2022 (VATF)

Vigyan Ashram, participated in KISAN-2022 agricultural exhibition during 23rd to 27th March as a conceptual sponsor. Technologies developed by VA i.e Rice De-husking machine, Egg Incubator, Agricultural waste composting culture, Food products etc were displayed on our stall. More than 50000 farmers visited our stall to learn about technologies & skill training courses. DBRT and DIC students managed the stall and interacted with visitors. It was great learning experience for them. We are very thankful to KISAN organizers for providing opportunity to us to showcasing our technologies.



D] Fab-Lab for innovation & training in tribal areas

A proposal on 'Establishing Fab Labs for Appropriate technologies for Innovations and Training in tribal areas' is sanctioned by Department Science & Technology (DST, Govt. of India) under Tribal Sub-Plan (TSP) scheme. The proposal aims at establishing digital fabrication facility at 2 different locations in tribal areas. We are partnering with Nimar Abhyudaya Rural Management And Development Association (Lepa-Punarvas, Kasrawad, Dist : Khargone , Madhya Pradesh) and Shri. Nityanand Educational Trust (Hamrapur Galtare Tal: Wada Dist : Palghar , Maharashtra) to establish fab-labs & train local youth.

E] Technology Based Entrepreneurship Development (TEDP) program

i) Advance Goat & Poultry farming: A 3 day's hand-on training workshop on 'advanced practices in goat & poultry farming' was conducted during 11th to 13th March. Participants learnt selection of breeds, feed management, vaccination etc through hand-on activities & field visits to successful farmers. Total 12 participants from Ahmednagar, Kolhapur, Pune participated in the program.

ii) TEDP camp @ Raigad: A orientation camp for Women Self Help Group (WSHG) was conducted @ Mograj village (Tal- Karjat, Dist-Raigad) on 25th & 26th March. Mograj tribal belt is adjoining to Panvel area of New Mumbai. Training was organized in collaboration with Anubhav Pratishsthan (Karjat) to introduce various

technology-based enterprise opportunities to rural community. VA team visited 3 villages for creating awareness, to map resources & meet probable beneficiaries. Around 20-25 individuals had shown interest in adoption of poultry farming, pickle making, fish farming etc rural enterprise.

iii) Field visit: Yogesh Onkar visited Ruchi-Swad Papad (Vithalwadi), Yanai Food (Khanur), Gorade poultry (Gosasi), Smarth Masale (Manchar) to provide on-field hand-holding & incubation support. He also helped to EDP trainees for their registration for Udyam Adhar (3), FSSAI license (1) & Shop Act (1)



Hero of Month:

- Mrs.Kavita Thorat: She has started her 'Samarth Masale' a spices manufacturing enterprise at Manchar (Dist. Pune). Mrs.Kavita is EDP trainee and receiving product development, business development, social media marketing, and market linkages support through EDP program. Further details of enterprise, e-commerce details can be found on <https://samarthamasale.com>
- Mr.Sanjay Galande: Sanjay has started his welding & fabrication business in the name of "Rajmata Engineering Works" at Parbhani. Sanjay is DBRT (Batch 2020-21) students & presently receiving mentoring support in licensing, accounting etc.



F] Design Innovation Centre (DIC) update:

- Eaton Indian Foundation CSR Manager Mrs.Zainab Ali and Mrs.Minal Jakhadi (lead Environment & Employee Volunteering) visited VA on 23rd March. They reviewed 'Eaton Indian Foundation' supported projects and interacted with DIC and DBRT students. We have also discussed future plans for DIC. We are thankful to Eaton India Foundation-CSR initiative for supporting us in various projects.
- Vrushabh conducted training workshops on 'EV Repair & Maintenance' for DBRT & DIC students on 30th & 31st March. It was hands on training. Its aimed at introducing various technical aspects of Electrical Vehicles (EV) like vehicle components, selection & maintenance of batteries, DC motors etc.
- Purnesh, Vrushabh & Ghansham started fabrication of 'Sanitary pad incinerator for hostel'. They successfully tested first lab scale prototype with vertically mounted gas burners. Prototype had 4 vertically mounted gas burners for central furnace with electronic controls. Details are on - [LPG-BASED SANITARY PAD INCINERATOR \(CAPACITY 60 PADS\) | DESIGN INNOVATION CENTER \(vigyanashram.blog\)](https://vigyanashram.blog)



- Ashish successfully tested his 'grain sprouting machine' (Grocubator) with IR sensor-based rotation system. IR sensor has eliminated problem of frequent calibration for chamber rotation. He is training kitchen staff to use it on regular basis & get user feedback for further modifications.



Grocubtor

- Team of professors / faculty members from Sahyadri College of Agricultural Engineering, Karad (Satara), visited campus on 16th March to meet students interns & guide them on project activities.
- Fab-Academy update: Fab-academy students completed electronic design, molding and casting, embedded programming and output device sessions & assignments. To learn working of wood-router functions they visited Fab-lab at College of Engineering Pune. They have also started work on building a 'conductive ink based' 3 D printer for 'make a machine' group assignment.

G] DBRT student learning updates

During March, students were busy in completing their course work, academic projects and campus interviews for internship placements. Following are some of the key activities on Pabal campus -

- Workshop section: Students erected domes for nursery unit of Mr.Siddhesh Sakore @ Dhamari village.
- A group of students constructed 600 Ft² brick wall @ new boys hostel recreation center. Total value of community service work were Rs. 11723.00. 'New recreation center' facility for boy's hostel was inaugurated at the hands DBRT students Sachin & Shubham on 18th March.



DBRT : Dome nursery construction @ Dhamari



Boy's recreation room towards completion

- Agriculture & Animal Husbandry section: Students installed drip irrigation system for 25 plants of guava. They are using boy's hostel recycled (grey) water for sustaining plantation. Students also sold 15 kg of fish from farm-pond.
- Students got average daily weight gain of 144.33 gm for 3 goat kids and learned concept of Feed Conversion Ratio (FCR) in Animal Husbandry.

- Energy & Environment section: Team of students completed 'electrical fittings' of newly built boys hostel recreation center. Students learnt concept of earthing pit, load distribution, fitting electrical switches etc skill through this work. They earned community service of Rs.2160.00 for total work order of Rs.13330.00. Students also installed a ceiling fan & 6 units of LED lights as part of regular practice work.



- Home & Health section: Pune based DBRT alumni Mr.Akshay Kajarekar wanted to launch soymilk based value added product as his enterprise.

Students helped him to prepare soymilk shrikhand (3 kg), soymilk lassi (1 lit) and flavored milk (2 lit). They also prepared 12 lit of Soymilk.

- Students also prepared 50 kg bread, Moringa & Peanut chikki (5 kg), Pooran mix (6 kg), Coconut cookies (3.5 kg) and Gajar Halwa (25 kg) as a part of the regular practice sessions.

HJ IBT Maharashtra & Uttar-Pradesh updates:

IBT Maharashtra:

'Solar Mobile Charger' training: A hands-on training workshop on fabrication of 'solar PV based mobile phone charger' was conducted for IBT school instructors. Training was conducted at Pabal (16th March) & Do-It-Yourself lab Kothrud (19th March) for 15 instructors of energy & environment section. Training was supported by Collective Good Foundation (CGF), a LTI employees crowdfunding initiative.



IBT instructor training: IBT program @ DSMV School, Tulapur (Pune) is formally started with the appointment & training of instructors. A training program for newly joined instructors was organized at Pabal on 15th & 16th March.

IBT Uttar Pradesh (stars forum):

In this month, IBT tools were handed-over to schools. Instructor appointments are finalized. Field team is coordinating with school administration, labour department for collecting out-of-school children data. We are planning instructors training and launch of program in the month of April.

IJ Updates on ATL lab training & DIY lab:

ATL Chhattisgarh:

- A session on ATL Marathon was conducted for schools. This year, 6 schools are participating in ATL Marathon.

Date	Session topic	YouTube link
4 th March	Internet-based smart notice board using Arduino and ESP-01	https://youtu.be/nv1oUGSrXx4
11 th March	ATL Marathon Journey	https://youtu.be/wsVMAfbezJM
25 th March	Student's Technovation Projects	https://youtu.be/G5ykysTMb9o

- A mentoring session was organised with guest speakers Dr.Devendra Singh (Ph.D., MSc chemistry, ATL Regional Teacher of Change (RToC),Bihar), Group Captain Shreeniwas (BE Electrical, MBA, Indian Air Force, Mentor of Change (MoC) Chhattisgarh), Dr. Dhanjay Pandey (Ph.D. MSc in Math, ATL Regional Teacher of Change(RTOC), Chhattisgarh).
- In this month, three online sessions were conducted for 265 students / staff.

ATL Andhra-Pradesh:

- 19th March : Unicef officials Mr.Sheshagiri and Mrs.Swati Dev visited ZPHS school (Movva, Guntur) to review ATL lab project implementation.
- VA team visited 13 ATL school in Guntur, Krishna and West Godavari districts and conducted students' hand-on sessions on application LDR, Blink circuit, 3D printing, Tinker CAD etc.

Date	Session topic	Number of views
8 th March	Spectroscope & its applications	1350
11 th March	Get started with Arduino IDE(Translation)	1406
15 th March	Laser & Its applications	793
22 nd March	Sensors & their coding	765
29 th March	Let's get started with plezmo	1000



[Vigyan Ashram has signed SOI with Atal Innovation Mission for supporting ATL labs in Chattisgarh and Andhra Pradesh.](#)

JJ Wikipedia 'proofreadathon' competition & Distance Learning Library updates:

Wiki-Marathi updates:

- In this month, Wiki team enthusiastically participated in *Indic Wikisource Proofreadathon-2022* ([Indic Wikisource Proofreadathon March 2022 - Meta \(wikimedia.org\)](#)) online competition during 1st to 15th March. Our team won 6 state level prizes including 1st (Komal Shanbhudas for 591 pages proofread), 2nd (Sumita Chuadhari 562 pages of proofread), 3rd (Keshav Sapate 352 pages of proofread).
- Wiki team also completed scanning of 954 pages of volume 2 & 3 of 'Technology &



VA - Wiki Team

Engineering of Textile'. These books are published by Rajya Marathi Vikas Santha & Dadajirao Technology Institute (Mumbai).

Distance Learning Library (DLL):

- On field shooting for 'agriculture waste composting' enterprise was done at Pabal campus on 21st March. Course will cover basic science, effective methodology composting & it's field application including enterprising opportunity for rural community.
- First draft of online library (<http://wp-india.in/thekillsguru/>) is created to distribute of online-content. Portal will have course content in the form of video's, online questionnaires etc.



Video shooting for composting lesson

KJ Other tit-bits

i. Yogesh attended National Focus Group meeting for New Education Policy @ Delhi on 14th March and 22nd March

ii. 8th March Women's Day was celebrated on campus with full enthusiasm. Girls on campus conducted story session, made gift articles & distributed sweets.

iii. Students of Ramkrishna More College (Akurdi), Padmashri Vikhe Patil College (Pravaranagar) and MIT Art, Design & Technology (Pune) visited Pabal campus as study tour.



DIC students with Eaton CSR Team

iv. Tushar Ranpise joined VA team as IBT-coordinator.

v. Weather record – Rainfall of the month -0 mm (Total: 650.98 mm) ,Max temp-39.00 °C, Min Temp –20.00 °C , Humidity – 32% % , Water height in well– 8.00 M.

vi. Energy consumption record- Electricity unit – III Phase -1410 units , I Phase import- 183, Solar generation- 2469. DG used – 02.00 Hrs.

vii. Animal Husbandry section update – Milk production –465.00 Kg, Poultry –NA, Goat- NA

viii. Biogas produced-20 M³ (Dung used- 502 Kg), E-rikshwa uses : **Not received** , Water purchased- Rs.19250 (1.32 lakh litre)

ix. Online visitors: www.dsttara.org – 883 (New visitor-804 Repeated- 79), www.vigyanashram.com – 841 (New visitor-681 Repeated- 160)

KJ Data Report: <https://shorturl.ae/5WHVa>

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

Photo Gallery:



Generator maintenance



DBRT : Fish harvesting

विज्ञान व तंत्रज्ञान आधारीत नावीन्यपूर्ण प्रकल्पांचे प्रदर्शन

पुणे : विज्ञानागम संस्थेच्या वतीने विज्ञान व तंत्रज्ञान आधारीत नावीन्यपूर्ण प्रकल्पांचा समावेश असलेल्या 'टेक्नोवेशन' या प्रदर्शनाचे आयोजन शनीबारी, ५ मार्च रोजी करण्यात आले होते. जे. पी. नाईक सेंट, एकलव्य कॉलेज व्हा चार्टरिंग, कोवर्ड डेव्हे, पुणे येथे पुढारी १ ते ४ चा वेळीत हे प्रदर्शन खुले होते. सकाळी ११ वाजता त्यांचे उद्घाटन पंत अॅण्ड टी इन्फोटेकचे वॉरिअर अधिकारी प्रमूष पांडेय, सुनील शोखे व सावित्री बाई कुले पुणे विद्यापीठाच्या डिप्लॉम, इन्व्हेन्शन सेंटरच्या समन्वयक डॉ. पूजा दोशी, जिल्हा ख्यवसाय शिवाण व प्रशिक्षण अधिकारी सी.आर.शिंपले यांच्या उपस्थितीत झाले. यशिन पुणेकर यांनी प्रारंभिक केले. नीलम शिखे यांनी मुद्रसंवादन केले. निघण न्यायाधीश एस.डी. गोखले, वरिष्ठ सॅण्ड, ऑफिस बाण्डेन हे मान्यवर उपस्थित होते. विज्ञान आगम ये संघालक डॉ योगेश कुलकर्णी यांनी स्वागत केले.



Exhibition @ DIY



Purchasing for Dingrajwadi Grey water recycling system



Fab Academy : Shop Bot training @ COEP

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