

Vigyan Ashram Status Report

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In this issue

- 'Learning Science Through Innovation' workshop for IBT students @ IISER Pune
- Workshop on Designing , Fabrication of Wind Mill & Entrepreneurship Development
- Beginning of New Academic Year 2016-17 : Welcome to New DBRT Batch!
- Open House Exhibition on 30th July

A] 'Learning Science Through Innovation'

Vigyan Ashram and The Centre of Excellence in Science and Mathematics Education (COESME) at IISER collaboratively organized workshop on 'Learning Science through Innovation' from 4th Jul to 8th Jul at IISER, Pune campus. It is the combined workshop of science teacher and students from selected 10 schools. The aim of this workshop is to train them to think like an innovator and come up with solutions to the problems in their surroundings. They were also introduced to use of new internet tools, collection of secondary data from internet sources etc. During workshop, team of students & teacher selected a project and develop a research plan to execute the project. They will execute their plan during IBT days. Total 40 students and 10 teachers from 10 different IBT program running schools were participated in this workshop. Mr. Mayuresh Prabhune, Dr. Milind Naik, Dr. Mohana, Dr. V.S. Rao, Mr. Subodh Kulkarni and team from IISER & VA worked as resource person. This was a first workshop of its kind at IISER and it was designed by VA. It was appreciated by IISER faculty and IBT schools.



B] Workshop on Fabricating Wind Mill

A workshop on 'Designing, Fabrication & Installation of Wind mill' was conducted at Pabal campus from 16th July to 2nd Aug. Total 22 students participated in the workshop under the guidance of Mr. Jorge Ayarza, a wind mill expert from Auroville (Pondicherry) and co-founder of Minvayu (<http://www.minvayu.org/>). Team fabricated two wind mill of 2.7 KWH and 1 KWH. They made blades from pine wood, made copper coils and used magnets to fabricate generator. Costs of windmills were sponsored by Mr.G.R.Kadam. At the end of the course, we installed Wind mills on farm of Mr.Kadam at Nhavra village.



Chiselling blades for wooden plankl



Installing wind mill at mid night on 29th July

C] Open House Exhibition

- Open house exhibition was organized on 30th July on the occasion of 13th anniversary of Dr.S.S.Kalbag. Wind mill made @ Pabal, Soil microbiology lab, plasma cutter, 3 D printers, Technology Park were important attraction of this year's exhibition.

It was visited by 2000+ visitors. They include villagers, students of 12 schools, foundation representatives, representatives of various NGOs and our collaborators. We have put on display all the work done during past 1 year. Important highlights are -

- "YUVA Udyojak" award was given to Mr.Vikram Kopade (2003-DBRT) for his garment retailing enterprise at hands of our senior alumni entrepreneur Mr. Nathu Powar.
- The Best IBT School, Award - Lokmanya Tilak Vidyamandir, Chikhalagaon
- 'Best IBT Students Project' award - Dhanaji Nana Vidyalaya, Khiroda.
- IBT Schools like Gawadewadi (Pune), Baragaon Pimpri (Sinnar), Manchi Hill (Ahamadnagar), Khiroda (Jalgaon) and Chikhalgaon (Dapoli Ratnagiri) , also participated in exhibition along with their Student projects.





DBRT alumni Mr. Vikram Khopade receiving 'YUVA UDYOGAK' Award.



Representative of Chikhalgaon (Dapoli) IBT School with 'Best IBT School' Award.

DJ DBRT Update : Welcome Batch 2016-17 :

DBRT new batch started from 10th July with 48 new students. This year we have students from Rajasthan, Gujarat, Uttarakhand, Telangana, Assam and Maharashtra state. Now student can also opt for National Skill Development Council (NSDC) approved advanced training certification courses along with NIOS diploma certificate.

We have made several changes in the course structure based on our experiences & feedback from students.

CAD design, Training on digital fabrication, working in the soil & microbiology lab will now be integral part of DBRT curriculum.

We are thankful to Asha for Education, Tata

Motors, SPA Education foundation and many others for supporting DBRT program.



First day @ ashram for DBRT 2016-17

E] Campus happenings :

It was busy month with new students. They are settling well in new environment and routine.

- DBRT Workshop students learnt basics of brick construction while building new toilet block for their hostels.
- DBRT Electrical students, learnt basic of electrification while, while doing wiring work of renovating hostel and fixing water pump. They also earned Rs.8300.00 while learning these skills.
- In Home-Health sections students, learnt basics of food energy value and processing while working on their daily calories requirement and learning Chikki preparation.
- In Agriculture sections students prepared field plots and sown Jawar seeds.

- From this year, DBRT students are required to document their work on the blog. Monthly updates on DBRT students activity please refer to - <https://vigyanashramdbrt.wordpress.com/2016-2017/>

F] IBT Updates –

i) IBT Maharashtra -

- Adarsh Prashala, Nagaj has planted total 2950 trees in July, 2016. This activity was supported by Suzlon foundation in collaboration with forest department.
- Suzlon foundation supported 5 IBT School in Nanadurbar district prepared kitchen garden in their School and also distributed seed to students for replicating it in their homes.
- Students of Shri.Sitaram Maharaj Vidyalay (Khardi) and New English School (Anavali) learnt basic science behind analysis potable water , while performing water testing activity under MKF support program.

ii) IBT Chhattisgarh -

- IBT program was inaugurated on 15th July at Jashpur (CG) on the occasion of 'World youth skills day' at the hands of District collector Dr.Priyanka Shukla in presence of Mr. Sheshagiri Madhusudhan & Ms.Gargi Shah (UNICEF) , Mr. Vinod Gupta (School Principal), Mr. Rajesh Gupta, (President, READS). We have screen documentary film on IBT program 'Kaam Main Hi Gyaan Hai' on the occasion.
- Ranajeet visited IBT program in Dantewada and Bijapur Schools (Pota Cabin) during 18th to 22nd July. He met district administration and IBT team to plan strategies of IBT implementation in coming year.



District Collector of Jashpur and other delegates at inauguration of IBT program.

G] Updates @ Technology Development

- Sameer Akka (IBT Instructor of Jaispur School) completed his 1 month training program on "Operation & Maintains of Egg Incubator". During training (15th June to 13th July), he learnt basics of poultry egg incubation science , machine operation , troubleshooting etc and also successfully incubated 1 batch of 30 birds with 50 % hatching rate.
- New prototype designed for 'Solar Incinerator'. This prototype uses Fresnel lens to burn used sanitary pads.

- Team at Fab Lab is busy in preparing for Fab12 conference and completing their projects for Fab12.
- Installed Polyhouse controller unit at Appasaheb Khaire's polyhouse for testing.

F] STEM program in Schools :

We have started project making workshop at DIY Lab, Kothrud. The program is supported by Eaton foundation. Primary target group of this program are Municipal Schools in Pune. The focus will be on 3D printing and arduino based electronics project. We have conducted few pilot workshops with students of Ambedkar school and also with IBT schools at IISER.



DIY lab activity with students of Bharat Ratna Dr.Babasaheb Ambedkar School (Pune)

G] Entrepreneurship Accelerator

- An "Entrepreneurship Development Workshop" was conducted from 16th to 18th July at Pabal. The program was attended by 40 aspirants of engineering and polytechnic graduates and individuals looking to start their business. The workshop covers skills in business planning, Marketing strategies, Financial Management, Record Keeping etc .
- Dattatray Chaudhari started his 'Motor Rewinding' enterprise at Kopargaon (near Shirdi). At present, its home-based enterprise and dattatray wish to expand it in near future.
- Mr.Mahadev Chate, an IBT instructor of Ambejogai (BEED) School submitted his proposal to RangDe cloud finance support to start Goat farming. Mahadev wish to raise Rs.60000 as initial investment. His proposal details are available at



Participants of 'Entrepreneurship Development Training Program'

<https://www.rangde.org/borrower/microcredit/india/maharashtra/mahadev/51469>

More details on : www.ruralstartup.wordpress.com

H] Design Innovation Centre

i)DIC Students project updates -

- Mayur Daptare is working on developed primary test circuits for Vibration based mobile charger project.
- Swami Kalekar is working on modification of hand operated Chines Rice Planter machine.
- Dipali Kambale, has started working on developing non-electric (pedal operated) oxygen enrichment unit for Genrich Membranes (NCL, Pune).

- Ms.Arundhati Jadhav M.Tech student from Yashvantrao Chavan School of Rural Development joined 1 Month training in rural technology development.
- Researcher from Global Engineering and Research Lab (GEER Lab) at the Massachusetts Institute of Technology in Cambridge, USA visited VA on 25th July to understand MechBull project.

Project details are available on – www.vadic.wordpress.com

I] Other tit-bit –

- I. Rahul Jagtap attended training on 'Project accounting' organized by UNICEF at Raipur from 20th to 22nd July.
- II. Examination for 'Basic Electrical Training' program was conducted at Auraangabad on 20th July. The program is supported by Megger (I) Pvt.Ltd.
- III. Nachiket Pathak from USA completed his 3 weeks internship in the Fab Lab.
- IV. Ranajeet visited DBRT alumni 2013-14, Jilaram at Karli village (Dantewada). He is doing carpentry and settled well in the village.
- V. Vishwas attended workshop on Vikaspedia at Yashada on 22nd July.
- VI. Yogesh was chief guest for prize distribution function at Nasik Education Society on 22nd July. He also visited Nasik with Pune University Vice Chancellor and DIC officials to review new prospective institute for setting up of DIC on 26th July.
- VII. Weather record – Rainfall -32.93 mm (Total 88.50 mm) ,Max temp-28.29° C, Min Temp – 15.74 °C , Humidity – 80.75 % , Water height in well – 6.04 Meter.
- VIII. Energy consumption record- Electricity unit – III Phase -576, I Phase -266. Quality of power : Number of interruptions : 90, Normal voltage : 85%, No supply : 6 %, low voltage : 1 %, high voltage : 0.92%
- IX. Biogas consumption – Dung used- 697 Kg, Gas produced- 17.44 M3.
- X. Two wheeler – 1073 Km, petrol consumption – NA
- XI. Ms Rachana Bhatia from INDUSA Endowment & her family visited VA on 12th July.
- XII. Total visitors to www.vigyanashram.com – 1891 (New- 1403 , Repeated –488)
www.dsttara.in : Total Visitors: - 1473 (New- 1234, Repeated –239)



Data Report:

https://drive.google.com/open?id=0B_Jk2xLqAXjcenBMZ19CeUxYeJRrVjJ2VzdEdUo4bXIhbms0

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Photo Gallery :



DBRT Workshop students learning basic of tractor overhauling



DBRT Electrical students learning electrification skills



Amkhel School (Nandurbar)



Open house exhibition : Bargaon pimpri



Fab Class for DBRT



Installation of plasma cutting machine

For more photo's : <http://vigyanashramdbrt.blogspot.in/2016/08/blog-post.html>

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