

Vigyan Ashram Status Report

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A] 'Talking Ganesha'

You can ask any question to 'Ganesha' through mike. Ganesha will search on the internet and



तुमच्या प्रश्नांना बाप्पांचे उत्तर!
पाबळच्या विज्ञान आश्रमाकडून 'टॉकिंग गणेशा' उपकरण

महान पंचमे : सकाळ वृत्तवेळ

शिवाजीपूर, ता. २३ : विचारलेल्या प्रत्येक प्रश्नाचे अचूक उत्तर देणारे 'टॉकिंग गणेशा' हे उपकरण पाबळ (ता. शिरूर) येथील विज्ञान आश्रमाने विकसित केले असून, परिमरात या उपकरणाचा बोलबाला आहे. माहितीच्या महाकाय जंबाज्जात याच्या 'गुगल सर्च इंजिन' चे बंधन आहे. इंटरनेटचा प्रसार, सहज उपलब्धता आणि विस्तारोत्तरांमुळे विद्यार्थ्यांना हवी ती माहिती मिळित स्वल्पमत क्षणांमैत उत्तर्य्य होत आहे, अर्थात 'गुगल'च्या सध्याच्या

पाबळ (ता. शिरूर) : विज्ञान आश्रमात 'टॉकिंग गणेशा'ला प्रश्न विचारून आपल्या जिज्ञासेचे उत्तर शोधणारा एक विद्यार्थी.

सर्च इंजिनच्या कार्यपद्धतीनुसार आपल्याला हवी ती माहिती गोपायला गेल्यास संबंधित विषयांच्या हजारो याद पड्याध ओंप होतात आणि नेमके उत्तर शोधण्यात, शोधणाराच कुठे हरवून जातो तेच सम्भवत नाही. याद पयांय म्हणून पाबळ (ता. शिरूर) येथील विज्ञान आश्रमाने

गणेशोत्सवाचे औचित्य साधून विचारलेल्या प्रश्नाला गणेशांनी बाप्पाच उत्तर देतील, असा पद्धतीने 'टॉकिंग गणेशा' हे उपकरण विकसित केले आहे. या गणेशांनी बाप्पांमोर वसून बाप्पांचा हवा तो प्रश्न विचारण्याचा आणि बाप्पांनी काही क्षणात विनवूक उत्तर द्यायचे, अशी ही कार्यपद्धती आहे. शक्येय आणि महाविद्यालयीन विद्यार्थ्यांना बापायकता सुलभ आणि खोपे असो हे उपकरण असून, इतिहास, भूगोल, सामान्यज्ञान, गणित, खायन्य ते सांस्कृतिक देतो विदेशी षडमोडींची इत्थंभूत माहिती हे गणेशांनी बाप्पा इंद्रियामध्ये सांगतात. या उपकरणाची कार्यपद्धती समजूत सांगतात

पान ३ वर

give answer to your queries. This is our 'Talking Ganesha' !

Atul, Suhas and Utsav Shaha from Infosys robotic club made this project. We installed 'Ganesha' on Pabal campus. We also displayed this in science exhibition organized at Jnan Prabodhini. Thousands of people asked questions to Ganesha.

It is uses raspberry pi (microcontroller) board, Google API's for Speech -to -Text and Text -

to -Speech conversion. Program also uses knowledge based search engine 'Wolfram-Alfa' for finding answers.

Sakal newspaper published news of the project on 23rd Sept. Following are links to get more details:

Video: <https://www.youtube.com/watch?v=AXrN8cPoqYI>

Document: <http://www.instructables.com/id/Raspberry-Pi-based-answering-Ganesha/?ALLSTEP>

B] Ganesh Festival on campus

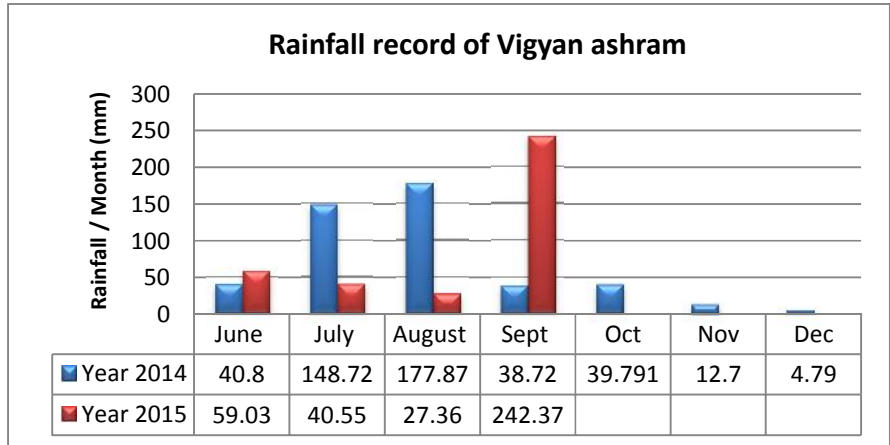
DBRT students were practicing barcchi dance from last 2 months. They got order for performance in three ganesh processions - Kendur(17th Oct), Pur/(25th Oct), Chas (27th Oct). They earned Rs.32500/- from the dance. We have purchased two dhol, dress for all students, barchhi and transport



cost from the income. Students hostel also installed Ganesh idol for 7 days and immersion procession took place on 23rd Sept.

C] Rain in September

We have received 242.37 mm rainfall from 10th to 19th September. We had only 124mm rainfall till 10th Sept. It was approx.75 % less than the total average. But this 9 days of heavy rain reduced water shortage to the large extent. All small check dams (including Thitewadi bandhara) and water streams started overflowing. It is great

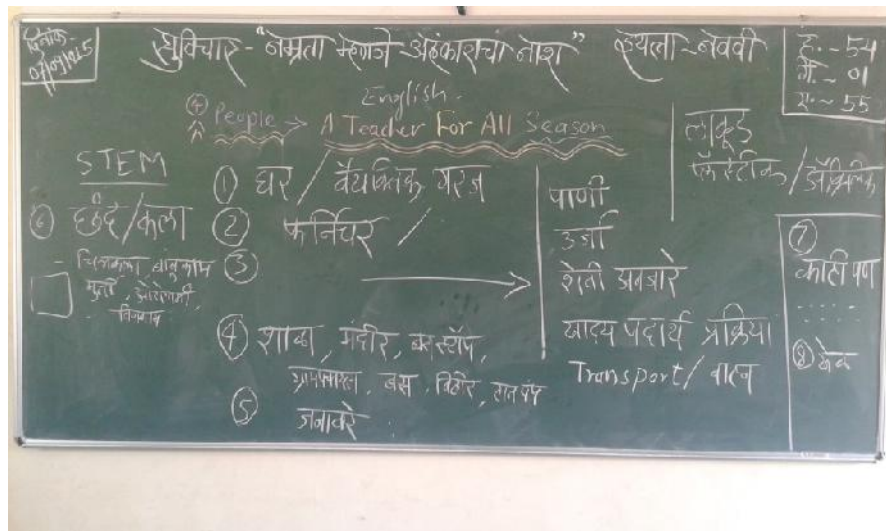


relief to us. The graph shows average rainfall / month during year 2014 & 2015. It shows rapidly changing and unpredicted rainfall pattern , affecting agriculture very badly.

C] IBT Updates :-

i] IBT in Maharashtra :

a) We have conducted 'Design thinking' workshop in Gawadewadi (7th Sept), Mukhai (10th Sept), Shirwal (12th Sept), Pokhari (15th Sept). We have shortlisted project ideas for the FabEd workshop at IIT, Powai next month.



b) Yogesh visited Bargaon pimpri IBT program on 21st Sept and Mangaon IBT on 22nd Sept. The visit was to review Model IBT project and suggest new ideas for improvement in IBT program in respective schools.



Yogesh with Principal of Manchi Hill school in Jail set made by IBT for play on Bhagat Singh



Yogesh with Principal and Co-ordinator of Bargaon Pimpri on chair made in IBT



Kurze Highschool : Making agri plot



IBT meeting @ Valsang Gram Panchayat

c) Animal vaccination camp in the following IBT schools : Amkhel (8th Sept- 24 cow), Jamgaon (4th Sept- 11 cow), Tilali (10th Sept- 11 cow), Shanimandal (11th sept- 62 animals), Aichale (11th sept -300 animals). We have co-ordinated with the Animal husbandry dept in these villages to carry out the vaccination drive for the animal.

ii) IBT in Chattisgarh : Regular IBT activity, instructors review meeting and school level practical's are progressing well in 17 schools of Dantewada. Following are highlights of the program :

- a) CG IBT team conducted a health camp in Mangnar village in Abujamad forest with the support of Dr.Godbole on 14th & 15th Sept. Team walked for 6 KM and crossed the river Indravati with a small boat(Donga in local language) which is made up of single wood. After the crossing the river again walked 3KM to reach Mangnar village. They examined blood group of approx. 400 people in two days. People came in groups from far away hamlets(Para). We are proud of Rajashekhar and Laxmi for their courage and commitment towards our countrymen in remote areas.
- b) IBT team also conducted workshop on photo lamination and POP article making for 20 children with special need in 'Saksham School'. The children are deaf and dumb. Team felt it challenging in the beginning but 'Learning while doing' made everything simple!



Dantewada : Camp for children with special need



Health camp : Abujamad forest

iii) IBT in Odisha :

IBT program is gathering momentum. Various activities are taking place in all 12 IBT schools. Students have practiced various activities like, making earthing, preparing different types of wiring and circuit models, humidity chamber, grafting, notice board, bench & table repairs, Chikki, Jam Jelly, Khowa ,Gulab Jamun and also tested Blood group and Hemoglobin. For e.g Students of SSD Highschool, Revelkona, Rayagada district made electrical fitting of 9th & 10th std classrooms, Malkangiri IBT school made notice board, various repairing work has been done in the schools like window, bench and door repairing.



Malkangiri : Making notice board

D] DST core support project- Following are important updates on technology development.

- a) Project Review Committee (PRC) meeting was held on 2nd Sept at Pune office. The meeting was aimed to discussed and decide on implementation strategy and technology incubated under TIED project. Following are the important points of discussion of this meeting –
 - All recently developed technologies like Rice De-husking, Sanitary Pads Incinerator etc needs to refine as per the field trial results and customer feedback. The cost of refinement of technology will be added to project development cost for particular technology.
 - During mass production of product - cost, aesthetics and quality should be prime focus.

- For attracting rural youth especially Non-DBRT students various ideas like – Creating aspiration for fellowship through social media, making templates of successful rural start-ups, making list of USTAD trainers etc. It is decided to execute these ideas.
- New technology development ideas were also reviewed in the meeting as per need of customers and objective of development.

b) **Rice de-husking machine customer feedback** – We have supplied machine to Mr.Khaire in Chandrapur. He informed his satisfaction over the performance of the machine. He had carried out test for nutritional value of rice from Kalichem Laboratory (Nagpur), which is authorized testing laboratory. It was found that our machine shows significantly higher retention of nutrients as compared to single polished (passed) rice of rice mill. Following table shows comparison of rice :-

Sr No	Nutrient / Food Value	Single passed (unpolished rice) from rice mill	VA Rice De-husking rice machine (HMT Variety)	Remark
1	Moisture	10.1 %	9.49 %
2	Protein	6.04 %	6.71 %	11.09 % More
3	Fat	0.64 %	0.80 %	25 .00 % more
4	Fiber	0.24 %	0.50 %	108.33 % More
5	Vit B1	0.03 Mg	0.10 Mg	233.33 % More
6	Vit B2	0.04 Mg	0.09 Mg	125.00 % More
7	Calcium	0.09 Mg	9.0 Mg	9900 % More
8	Iron	0.64 Mg	2.20 Mg	243.75 % More
9	Phosphorus	155 Mg	185 Mg	19.35 % More

On the flip side, we are facing same issues with blower mechanism of machine for machine supplied to INORA. We have taken back this machine and working on solving problem.

c) Waste management study : Pabal is looking dirty due to dry waste. All plastic waste is dumped in open land and it makes village looks ugly. To understand the problem, we

have carried out survey of plastic dry waste generated in Pabal village per month. We had surveyed all rag pickers, shop owners. **Following waste is generated by Pabal villagers per month – Polythene bag – 751 kg, Milk plastic bag – 46 kg, Biscuits & other wrappers – 30 kg.**

We are brainstorming on ideas to collect and recycle this waste. Vijay



visited Shirdi waste management project along with Greeny team on 16th Sept to understand their waste management processes and issues.

d) **Fab Lab :**

i) We have purchased new 3D printer on 22nd Sep. and it was installed @ D-I-Y lab.

ii) A meeting of electronic project mentors was held on 5 Sept at Pabal. Six volunteers from different companies in Pune attended the meeting with Fab lab team. We discussed status of the projects and support needed.



i) Arduino workshop for Ganesh decoration was held on 12th Sept. Three students made Ganapati Makhar and installed arduino base motor control and light decoration behind Ganasha. Video of project:

<https://www.youtube.com/watch?v=SRPsfGRXBSk>

ii) To solve the problems in Laser machine commissioning, we were advised to provide industrial (chemical) earthing to laser machine. We never did the industrial earthing and therefore given the work to professional agency. They had conducted trainings session for us and completed the work on 27th Sept.

E] Entrepreneurship Accelerator project

a) Yogesh attended meeting of social investors of RangDe on 6th Sept. He gave a presentation on partnership between Rangde and VA.

b) TIED Fellow's progress –

i) Jayesh Dhayarkar – Jayesh has completed his 2 months of Polyhouse training with Mr.Sachin Khaire and other progressive farmers from Pabal. He has started preparing his business



proposal (goat farming). Laxman Jadhav visited his farm and native place (Talegaon-dhamdhere) to guide him in his resource mapping and cost calculation for goat farming.

c) We have started Whatsapp campaign to encourage students to start enterprise.

d) We have conducted STED entrepreneurship awareness session in the following ITI / colleges :- Bhairavnath College, Pabal and ITI – Rajgurunagar (16th Sept) , ITI - Ghodegaun (15th Sept), Krond (17th Sept), ITI – Shikrapur (18th Sept), ITI –Nanndgaon (18th Sept) , ITI – Katraj (18th Sept)

e) Anil took a training session on Egg hatchery at poultry training program organized by MITCO on 23rd Sept. 16 trainees attended the training.

G] DBRT update

i) Yogesh conducted training session of DBRT staff on 'Learning methodology' on 5th Sept.

ii) We have purchased new Television for DBRT hostel. It is 40" Videocon T.V installed on 20th Oct.

iii) Students councilor for students with special needs Mrs Patwardhan visited ashram on 18th Sept.

iv) Food Lab Sale : Rs.8775/-. We made 'Bamboo Pickle' from the bamboo shoots. It was very tasty and we are documenting the recipes.

v) Dairy record- Gauri (Milk : 371 lits, Margine: Rs.5827/-), Soni (Loss : Rs.1187/-), Sonam (Loss: Rs.1502/-)

6) Goat farm : Insemination service : 15, Operational Margine : Rs.319/- , New poultry batch started on 16th Sept.

7) Dahihandi celebration on 6th Sept.



Our Ex-employee Anand started his own polyhouse. He is applying learning at ashram on his farm. Yogesh visited him on 22nd Sept.

H] Other tit-bits-

- 12 members from Pratyaya EduResearch Lab, Bhopal along with Mr.Anwar Jafri of Samavesh visited VA on 28th – 30th Sept. They visited ashram campus IBT school, D-I-Y lab and also took lesson on 3D printing.
- Yogesh gave a talk on 'Sustainable Engineering' at Sinhgad Technical Institute, Solapur on 13th Sept.
- VA online visitor –
- www.learningwhiledoing.in –537 New-62 , Repeated – ,www.dsttara.org – New-439 , Repeated – 106,www.vigyanashram.com –1302 New-394 , Repeated – ,www.vigyanashram.wordpress.com – Visitor – 2046 , Viewers –820
- Weather record – rainfall of the month – 242mm, Rainfall YTD – 387 mm, Max temp- 26°C , Min Temp –11°C, Humidity –81% , Water height in well – 3.4 M

- Energy consumption record- Electricity unit – Three Phase - 479 KWH, Single Phase – 882 KWH , Quality – No. Of interruption- 143 , No supply – 5.7% , Normal Voltage - 78% , Low Voltage – % , High Voltage- 16.16%
- Diesel consumption for generator- 2 Lit , Two wheeler running- 480 Km.
- Biogas consumption – Dung used- 1445 Kg, Gas produced- 51.6 m³

Data Report Link-

https://drive.google.com/file/d/0B_Jk2xLqAXjccFRwUOVhUTVHcIE/view?usp=sharing

(Work of Vigyan ashram is also supported by Asha for Education, INDUSA, UNICEF, Govt. Of Chhattisgarh, Lend-a-hand-India, Suzlon foundation, Wildlife Conservation Trust, Megger (I) Pvt Ltd, Eton (I)Pvt Ltd, Dept of S & T , RGSTC, Praj Foundation and Many Individuals and foundations)

Photo Gallery:



Boring machine made 10mtr drilling in the ground for earthing.



Dahihandi celebration @ campus



Goat vaccination @ Aichale



IBT : On a trek to make a Bio Diversity register

For regular update : <https://www.facebook.com/vigyan.ashram.pabal>