I visited Vigyan Ashram twice this time when I was in India. The first visit was on 10th June when there was a board meeting at Vigyan Ashram. 2 of the board members (Mrs. Anjali Chipalkatti and Mr. Vijay Kumar) were going from Pune to Pabal. I carpooled with them in Mr. Vijay’s car.

This was my 3rd year visiting VA. Whenever I go there we go over all the departments with one of the staff members. In the first year there were mainly DBRT students with very few students coming for short term courses. Number of girls also was very small. After opening of the Design Innovation Center in 2016, there are new programs added and the number of students has gone up almost by 50%. College students including girls are coming for 3-4 months internship. These programs are geared mainly towards graduate and postgraduate students and they are working on some of the complex projects. Having more graduate students is helping the DBRT students too as they are observing as well as participating their graduate level projects.

I talked to Fab Academy and DIC students including student from Bangladesh, Bhutan and from barefoot college in Rajasthan. Fab Academy students were in the last week of their program. They were working on the completion of their individual projects.

Even though the DBRT course has just 2 girls this year, overall number of girls in DIC and short term courses has gone up considerably. On women’s day celebration there were 40 girls and women including students and staff. I could see the increased number at lunchtime in the lunchroom.
In the soil testing lab, they do testing Nitrogen, Phosphorus, Potassium, pH of the soil, Carbon, Boron, Zinc contents are tested. I mainly saw girls in the soil testing lab as staff and as students. They were able to explain me the process. The machine is calibrated with distilled water base or a blank solution. Soil is dissolved in water in a test tube which is inserted in the machine. Machine does the testing optically.

VA is now an authorized Soil testing Lab under ‘Soil Health Card’ mission. They conducted soil analysis for 3800 soil sample, benefiting 15500 farmers from 12 villages in the Shirur village. I could see a pile of collected soil samples labeled with farmer’s names. Computer course girl students are handling online data feeding of 1000+ soil testing report of farmers.
I visited the poultry section and talked to Suraj who was the current in-charge. He showed me the record of the progress they have been doing and the farm produce. He has proudly written “Suraj Poultry Farm” on the wall of the shed.

I checked out the hostel construction. The first floor is about 75% done and was expected to be usable by the time the new batch joins in July. Some of the construction work was done by the students under the guidance of the contractor as a part of their curriculum.

There was new digital embroidery machine & sewing machine in the Fab Textile section. There are 2 computers in this section. This is one area that attracts more girls than boys. VA had also tried Dance classes on demand from the girl students of VA and nearby college. One of the girls from the college was teaching the classes. It got closed though after that girl was unavailable to teach.
Next to the Fab Textile section is the computer lab which I always see being used by the students sharing the limited resources to maximize the usage.

I met Ms. Resma who manages the food lab section. They now have outdoor brick oven to bake bread, cake, cookies etc. I talked to some students who learnt baking there.

Couple of other new projects were the Water overflow indicator, Grade separator for sand, Grain and debris separator etc.

After lunch I had long discussions with Dr. Arun Dixit who has joined VA last year.

Dr Arun works at National Chemical laboratory and has taken time off to work at VA but most likely will take an early retirement to work at VA. I felt that he is really a great addition to the VA staff since Dr. Yogesh Kulkarni alone was stretched thin managing the entire VA operations.

I got a chance to catch up with lot of recent tidbits at VA with Dr. Arun. He is mainly helping with DIC but has keen interest in all the activities. He stays in Pune but spends almost half his time here in VA sometimes staying there overnight. In both my site visits I hitched ride back with him
and visited his composting drum installation in one of the colonies in Pune. I also had detailed discussions with the DIC students who is working with Dr. Arun on different projects.

Dr. Arun mentioned that 10 scholarships that Eton has given for DIC students has not been utilized fully. He talked about the idea behind DIC. University wants to invest in 4 areas namely Composting (Urban waste management), Drying (for food preservation), joint business (supplementary to farming like poultry, fish farming etc) and Organic carbon replenishment (Azola being one of the nitrogen fixing and indirectly carbon replenishing). DBRT students projects also were aligned with the DIC initiatives. Solar dryer, Evaporative Fridge that was piloted in the local market by the vegetable vendors to keep green vegetables fresh for longer time, Water overflow indicator etc.

He told me that Tata20 program through Tata’s CSR activities supported 20 local girls. This has helped improve number of girls at VA. But since Tata mandated that the girls be in the SC/ST category, VA stopped the taking Tata sponsorship and continuing the program under name Super20 on their own.

His suggestion is to acquire a separate funding for project based research and development.

He mentioned that for infrastructure updates, VA used to get funding from KKB trust which was given through Asha. Due to Kishan bhatiaji’s health and other issues no new funding was received in last couple of years.

TISS worked with VA before to employ few students as a trainee but VA stopped that as the trainees were kept in the same job and there was no new learning as was intended by VA. Now TISS wants to partner with VA again to start IBT program in a couple of places.

Marathi Vigyan Parishad is also partnering with VA. They bought some patented technologies from BARC and gave them to VA for using in projects. Compost culture from BARC is one of them.
Dr. Arun talked about the prosthetic hand for which VA has the proven technology. There is an investor too but VA needs someone to drive the productization of the prototype.

Yogesh and I then walked to the village market to have tea. The market is about 10-15 minutes of walking distance. On the way we met groups of VA girls who were going to the market. We also saw the ladies public toilet that the VA students renovated on 26th Jan. It was unusable before but now the ladies vendors in the market can use it.

The evening meditation session was pretty interesting. In these sessions every day the instructor or senior students picks a topic or a quote and ask students to express their thoughts on it. Many students shared their opinions. I was asked to share my thoughts. Students asked me some questions about Microsoft and US. After the session everyone had dinner and went to sleep.

6 am in the morning we all gathered for prayer. Students usually go out for a walk after this and then get ready. After the breakfast the day’s work starts. Everyone assembles in the new classroom. If anyone has any issues or any dependencies for the day’s work, they are discussed there. That day few students including me had a stomach upset. Some students were asked to sample and test of the water from water sources installed in the ashram. The kitchen staff was called. They tried to justify themselves and Yogesh explained them that they may not be at fault but still need to be aware of the issues and do their due diligence in cleanliness in the context of that minor outbreak.

Then there was a storytelling session where Dr Arun had picked a biography of a doctor who had struggle to bring awareness and provide services to the uneducated and underprivileged section of the community.

DBRT instructor Rahul then showed me their record keeping. It was mostly for NIOS exams. After lunch I started my travel back to Pune with Dr. Arun. On the way back we visited the housing society where the compost drum was installed to check on its status. Arun then dropped me where I could catch an auto to get to home.

The 2nd site visit was with one of my friend who was connected to VA long back as an architecture student and wanted to get back in touch with them. We went there on his motorbike. We reached little late for lunch. At lunchtime there was a family who had come to apply for the DBRT admission for the teenager in the family. They had a long time VA supporter with them who had worked in the US but now settled back in India.

After lunch I gave my friend a tour. When he left I talked to couple of students and recorded our chats. DIC student Shubham was talking very passionately about his journey in VA. He showed me his projects on mushroom cultivation, soil humidity sensor, composting etc.
Another student showed me the kitchen garden project using recycled sacks of cement\sand as a container and grey\recycled water etc. He was initially shy when I asked him if I can record our chat. But soon he was comfortable with the camera and explained his project. That is one thing I see consistently with the VA students. Whoever I talk to are able to talk at least for 5-10 minutes about their projects and explain it in detail. I also recorded my chat with the DBRT girl student about her project.

Dr. Arun then introduced me to another DIC student Sidhesh. He too talked passionately about his projects like working prototype of the hygiene box for sanitary pads disposal. It was done for the local municipality in Saswad village which got a grant of INR 15,00,00,000 from the government for the project. He also worked on a shredder for composting raw materials, a Nirgudi oil extraction machine and a sprouter. The smaller sprouter machine available for processing 3 kg of the legumes costs Rs. 26000. Similar size sprouter was developed in VA for Rs. 500 and much bigger machine was developed in Rs. 2500.

The evening program was pretty much the same. Though the atmosphere was little more serious this time since the next day morning was the graduation ceremony. Some students were going to leave VA the next day and had started missing VA, the staff and each other.

On the graduation day there were lot many visitors mostly the students families so there was an enthusiastic atmosphere. After morning prayers, daily chores and breakfast at 10 am everyone gathered in the new classroom. Students were asked if they would like to talk few words on that occasion. Many students were eager to talk and did a good job expressing their thoughts. A volunteer from Barefoot college in Rajasthan Mr. Bhagawat Nandan then gave a short speech. I too was asked to say few words. Me and Mr. Nandan then handed over the certificates.
After the ceremony students were mostly busy with the parents showing them around. After lunch, I was waiting for Dr. Arun for my ride back. There was a girl Vaishnavi working with instructor Suhas on troubleshooting 8x8 LED matrix that would show how many students are present today. I helped her in debugging and we fixed couple of bugs. Since it was time to leave for me I gave her some pointers to try out and my gmail id to communicate further. Later we exchanged couple of emails before she finished her project and left.

I then came back in Dr. Arun’s car with Sidhesh and Yogesh. Arun was discussing general issues at VA with Sidhesh. One of them was an attitude issue with one of the staff members and how it was affecting the students. Both were sharing their perspective without any hesitation even though I was an outsider who has come there for a site visit to assess the health of the project. It was good to see the staff raising their concerns and the way of handling issues.
We again visited the compost project in the residential colony in Pune. The caretaker had not followed instructions for setting the drum rotation frequency and had set it to run continuously resulting in dense mushy mass of the raw material which did not get good air circulation and was stinking because of that. They discussed some corrective measures and we left from there. Yogesh said we could take a local bus instead of an auto so we got down near a bus stop. We took a bus but it was taking a way longer route so we got down after few stops and shared an auto back home.

Couple of days later I visited VA’s facility in Pune with my niece and my architect friend. I had never been there before. It looks pretty old from outside with the dome structures. Yogesh discussed his ideas about renovating the space and making it more suitable for the maker or DIY culture.
Main activity there is DIY lab or fablab. They have some impressive machinery like 3-D printing etc there. They conduct classes for mainstream school children there. Anyone and everyone is welcome to use the equipment after a short training with a nominal yearly fees of Rs. 500. Outside there is small section of land which is managed by one of the volunteers with the help of few other volunteer residents nearby. Anyone who wants to experiment with crops can join them.

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