

Green Office

First Progress Report

Date: 16 July 2014

Following the first meeting of the Green office which involved orientation of the interested students to the activities, the Green Officers organized themselves to the area which they wanted to primarily contribute to. There was a brainstorming session in April about the kind of initiatives that can be taken by the Green Office to make the IIT Gandhinagar a green institute.

Members:

Faculty:

1. Sudhanshu Sharma (convenor)
2. Dr. Naran Pindoriya
3. Dr. Sharmistha Majumdar
4. Dr. Shanmuganathan Raman
5. Dr. Vimal Mishra
6. Dr. Shankarjee Krishnamoorthi
7. Dr. Ajanta Sachan

Students:

8. Anurag Singhanian
9. Naman Bansal
10. Chauhan Darshil
11. Rishabh Jain
12. Sarojini Tiwari
13. Shubham Pachori
14. Sneha Ved
15. Desadla Rushabh Praveen
16. Prerna Singh
17. Divyansh Tripathi
18. Akhilesh Gotmare

Consultant:

1. Mrs. Nupur Tandon

Distribution of areas

1. Energy conversation and renewable energy:

Faculty Member: Dr. Naran Pindoriya, Dr. Sharmistha Majumdar, Dr. Shanmuganathan Raman.

Student Members: Darshil Chauhan, Naman Bansal, Anurag Singhanian, Ujash Dave, Akhilesh Gotmare, Divyansh Tripathi

Ideas Proposed:

- 1) Use of intelligent lighting mechanisms to automatically power off devices (like lights, ACs, fans etc) when not needed.
- 2) Greater dependence on renewable sources of energy
- 3) Energy friendly devices such as LED lighting and solar water heating.

2. Water Management

Faculty Member: Dr. Vimal Mishra

Student Members: Rishabh Jain

Ideas Proposed:

- 1) Recycling of used water
- 2) Rainwater Harvesting

3. Solid Waste Management

Faculty Member: Dr. Sudhanshu Sharma (Convenor)

Student Members: Sarojini Tiwari, Rishabh Desadla, Shubham Pachori

Ideas Proposed:

- 1) Implement and oversee the recycling activity on campus
- 2) Place suitable colour coded bins at appropriate points in the campus
- 3) Review the solid waste management process followed currently and makes a proposed plan for electronic waste.

4. Biodiversity

Faculty Member: Dr. Ajanta Sachan

Student Members: Sneha N Ved, Prerna Singh

Ideas Proposed:

- 1) Having indigenous and climatically suitable plants and trees on the campus
- 2) Having a community run "Kitchen Garden" to inculcate a sense of ownership
- 3) Maintaining a nursery on the campus
- 4) Regular tree planting drives for the neighbourhood

5. Noise Pollution Management

Faculty Member: Dr. Shankarjee Krishnamoorthi

Ideas Proposed:

- 1) Having a structure and rules defined to keep the campus noise free.

- 2) Spread awareness and concern for traffic
- 3) Conduct safe driving drives for the campus and the neighbourhood

Each of these teams, besides the designing and implementing the solutions for problems in their domains will also work to educating people on and off campus about environment friendly and sustainable practices. This would include putting up relevant notices and posters on the campus, student drives and activities.

Progress so far:

Solid waste management:

We have been successful in implementing our waste management agenda to start with. We do waste segregation including recyclable waste like paper plastic etc and bio-composting for food waste from mess and canteen. Money collected in such matter is tripled by the contribution from IIT Gandhinagar. This money is distributed among the workers. This has been very successful plan and similar strategies will be adopted in future when we shift to the new permanent campus situated at Palej village. We have already started planning for our permanent campus and similar concept will be directly copied there. It is worth mentioning here that all the sanitary waste and biomedical waste is not sent to the landfill instead we have identify a company which takes it from our campus free of cost. Recyclable waste is given to a company called WOW (wealth out of waste). We are in process of making a biogas plant near mess facility. Green office members are currently exploring this idea.

Apart from the recyclable waste we have also been doing composting or the organic waste and compost thus produced is being used in the planation work at the permanent campus.

Although it is in the very initial stage, bicycle riding has been being promoted and we have bought a few of them. We call it share-a-bike system. This experiment will teach us to scale up the things in the new campus.

Biodiversity:

Details of the tree planation to enforce biodiversity in the campus are given below:

Fruit Trees

1. Jamphal (guava) - 1000
2. Sitafal (custard apple) - 200
3. Jamun - 580
4. Khatti Amlı - 870
5. Gunda (bird lime) - 1460

Other trees

1. Saru - 500
2. Kailashpati - 10
3. Kanji - 800
4. Sisu - 300
5. Neem - 700
6. Bamboo - 2250 Total number of trees = 8670

We are in the process of procuring nearly 3000 plants from nearby Gandhinagar area nurseries as well as 5000 Karamda plants from Vijaynagar and Himmatnagar nursery by 15th July i.e. the coming Tuesday.

We already possess the following fruit plants in our nursery:

1. Setur	500
2. Gorasamli	390
3. Aam tree	40
4. Jamun	350
5. Khatiamli	35

(Data provided by Mr. Y. K. Chauhan)

Other than the tree plantations students run Community Park and a Kitchen Garden is in process. Small piece of land in our permanent campus has been identified and there is enthusiastic participation from faculty student and the staff members. We hope that this will be a big step forward in terms of biodiversity.

Future directions for permanent campus

- The option of having solar lights should also be considered.
- If on the campus, a biogas plant is set up for managing organic waste, it can also be used for lighting.
- Water filter / RO water filters to be set up at multiple points that would reduce the consumption of water bottles.
- All toilets to have dual flush system/ less water flush system
- Food trees like banana and papaya and guava are easy to grow should be planted. Also Neem trees which is medically beneficial.
- Plastic will be banned. And use of disposables should be minimized.
- As a long term plan, a biodiesel research centre using waste cooking oil will be initiated.