

A Report on Industrial Visit to

# **Muni Seva Ashram, Goraj Vadodara**

*Organized by*

*Training and Placement Department*

## **Department of Automobile Engineering**

**B-Tech. (4<sup>th</sup> Semester)**

**Date of Visit: 29<sup>th</sup> March, 2016**

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**Chhotubhai Gopalbhai Institute of Technology,  
Uka Tarsadia University, Bardoli.**

## Schedule of Visit:

Time		Location
To	From	
5:15 a.m.	-	L.P. Savani Circle (Initiated)
6: 00 a.m.	-	Left from Kamrej
8:20 a.m.	9:00 a.m.	Breakfast at Bharuch
10:45 a.m.	-	Reached at Muni Seva Ashram
11:00 a.m.	12:30 p.m.	Visit of Different Sections of Ashram
12:45 p.m.	2:15 p.m.	Lunch at Guest House of Muni Seva Ashram
2:30 p.m.	3:30 p.m.	Visit of 100 TR Solar A.C. System and Kitchen operated by Renewable Sources.
3:45 p.m.	4:20 p.m.	Visit of Small Scale Parabolic Solar Concentrator and SWH System
4:40 p.m.	5:15 p.m.	Visit of Biogas Plant and Solar Cemetery Home
5:30 p.m.	-	Left from Muni Seva Ashram, Baroda.
7:45 p.m.	8:45 p.m.	Dinner at Bharuch
11:45 p.m.		L. P. Savani Circle, Surat (Return)

**No. of students visited: 78**

## **About Muni Seva Ashram:**

Ashram is a very spiritual and peaceful place for peace of mind and health. Muni Seva Ashram was founded by Shree Anuben Thakkar in 1979, under her Guruji's direction without any prior mission but only sought to serve the needy and deprived of Goraj. At present the main vision of ashram is "To serve, strengthen and sustain the wellbeing of the less fortunate without any discrimination and build organizational resilience through agriculture, health, education, welfare programme and alternative energy by deploying most appropriate technologies in total harmony with nature, culture and human values".

Muni Seva Ashram stands for three major fields which are Education, Health Care, Social activities and sustainable development. There is a Residential Primary and Secondary school, Nursing College, Vocational Training center, Cancer hospital and Research center, home for differently abled women, girl children and senior citizen. The management of ashram handle everything most of with the help of donation and little bit by minor charges.

Most important field due to which ashram is mainly in focus is its sustainable development with the use of Renewable energy resources, organic farming and animal husbandry. They have very well organized solar technology for operating Air conditioning in the Cancer Hospital and cooking applications.



*A view of Muni Seva Ashram*

Sustainable development” refers to a way of human development wherein the use of resources meets human needs while preserving the environment, without compromising the ability of future generations to meet their needs, and it can refer to economic, ecological, political, and cultural sustainability.

Muni Seva Ashram is an active agent in the drive for sustainable development, with large-scale interests in organic farming, agro forestry, horticulture, animal husbandry, solar energy, and biogas.

*Mr. Deepak Gadhia Trustee of MSA and director of MSA - Renewtech Foundation has guided for understanding of various technologies established by themselves.*

Some of the Ashram's efforts towards promoting the use of renewable energy are:

### **Solar Air-Conditioning:**

This system was established in 1994. A system of 100 Scheffler dishes of 120 sq. feet each meets 100 Tonne Refrigeration (TR) required by the two hospitals in the Ashram. This is the first solar air-conditioning system of its kind in India. The steam at 550 °C is produced with the help of such kind of parabolic collector system.

The Scheffler dishes are inbuilt with auto tracking system to track solar radiation throughout the daytime with the help of simple gear mechanism. Unique thing integrated with this technology is that, the Focus didn't move with parabolic dishes at any instant. Focus constitute of Header pipe to supply water for producing steam. The header pipe is constructed with Water level indicator to indicate level of water and safety valve to release the pressure inside pipe if it goes beyond design limit. The design pressure is 16 kg/cm<sup>2</sup> and approximately 10 kg/cm<sup>2</sup> pressure is produced at the rate of 400 kg/hr.



*Parabolic Scheffler Dish (Total 100 Nos. of dish are installed)*

### **Cooking:**

Meals for 200 students of School is cooked using 2 Scheffler dishes of 10 m<sup>2</sup> each. SK 14 parabolic solar cookers are also used for domestic cooking and demonstrations.



*SK 14 Solar Collector Dish at School for Cooking*



*Mr. Deepak Gadhia explaining the simple parabolic solar cooker for domestic use*

### **Solar Water Heater:**

Solar flat plate collectors are used to heat 31,000 liters of water that is used every day at the Ashram's kitchens, guest houses, and hospitals.

We have visited the solar water heating system which constitute of series of 10 solar flat plate collectors located at the school. Each of collector is of 2 m<sup>2</sup> area and overall capacity of SWH system is 1000 liters per day.



*Solar water Heating System with capacity of 1000 LPD*

### **Solar Photovoltaic Systems:**

Most of the street lights at the Ashram are automatic, self-contained solar photovoltaic systems with panels mounted on the light poles.

### **Biogas:**

There is a Khadi Village and Industrial Commission Bio Gas Plant located at the Ashram's Gaushala. It uses kitchen waste to generate gas which is piped across the road to the kitchens in the Ashram.



*K.V.I.C Bio Gas Plant*

## **Solar Cemetery Home:**

India's first solar operated cemetery home is installed nearer to the ashram. The technology is well proved and feasible, they have also tasted this technique on different animals. But at present is technology is not in working mode due to some religious belief.



*A Solar Cemetery Home*



*Group Photo at the Guest House of Muni Seva Ashram*