

## **Best Practice of the Department of Chemistry**

### **Title of the Practice: Green Chemistry: An Innovative Technology**

**Goal:** To drive chemistry students towards clean and green technology.

### **The Context:**

The Drive towards clean technology in the chemistry laboratory in view of to reduce, to reuse, to recycle and to Recover the Natural resources requires a level of innovation and new technology. The green chemistry revolution provides an enormous number of opportunities to discover and apply new synthetic approaches using alternative feedstocks; ecofriendly reaction conditions, energy minimizations and the design of less toxic and inherently safer chemicals.

### **The Practice:**

- Department of Chemistry took a green step towards the adaptation of green chemistry concept not only in the theory, but also applying it in laboratory for practical purposes.
- The laboratories are well constructed in the center of the college with proper ventilation and considering the light factor also. So there is no need of light during the day time in laboratory which help to save the Electrical energy.
- Procedure of Many practical's have been changed in vision to avoid the use of harmful and toxics materials.
- The faculties of our department allot the project related to Green Chemistry and related to how to save the environment like water conservation, solid waste management etc.
- All the faculties used microwave instead of traditional heating process to save the Gas energy and time too.
- Department of Chemistry took initiation for water harvesting and liquid and solid waste management.

### **Evidences of Success:**

- Many Projects of M.Sc. Students have been based on microwave synthesis only.
- Water Harvesting is done in chemistry laboratory
- In B.Sc. First year instead of using sodium hydroxide use of lithium hydroxide is done.
- Acids and bases are not thrown directly in basin. Acids and bases are first neutralized and then its disposal is done.
- Many Projects of Racialization of waste water, solid waste management and liquid waste management in chemistry laboratory are allotted to the students.
- Safety equipment's like hand gloves, goggles etc are provided to the students and laboratory Assistant.

### **Resource Required:**

Apart from some apparatus will of teacher to apply Green Chemistry concept is must.

### **Problem Encountered:**

The green chemistry revolution is providing an enormous number of challenges to those who practice in chemistry laboratory. With this challenges however there are number of opportunities to develop new technique and make the chemistry more interesting.

Head,

Department of Chemistry  
Shri R.L.T.college of Science, Akola