GMRIT Training Tomorrow's Engineers Today

GMR Nagar, Rajam-532 127
Srikakulam (Dist.)
Andhra Pradesh
CIN U80301AP2003NPL042195
T +91 (8941) 251 592/251 593/ 252 989
F +91 (8941) 251 591
W www.gmrit.org

Criterion VII – Institutional Values and Best Practices (100)

7.1 Institutional Values and Social Responsibilities

Environmental Consciousness and Sustainability

7.1.3 ***Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)***

- *Solid waste management* ✓
- *Liquid waste management* ✓
- *Biomedical waste management* ✗
- *E-waste management* ✓
- *Waste recycling system* ✗
- *Hazardous chemicals and radioactive waste management* ✗

Provide web link to

- *Relevant documents like agreements/MoUs with Government and other approved agencies-documents*
- *Geotagged photographs of the facilities* ✓
- *Any other relevant information*

In the 21st century, issues like climate change, global warming, carbon emissions, ozone depletion, air and water pollution, and overall, sustainability, have become the most inexorable issues compelling the present generation to do something to escape extinction. Ecological degradation and environmental crises have threatened not only the existence of humanity but also that of diverse species, including the flora and fauna. sustainability is the biggest challenge of the 21st century and every human being, organization, and all efforts should be focused on protecting, sustaining, and promoting our environment and ecology to reverse the tide of destruction, checkmate the menacing lethal elements, and substitute the depletion of natural resources with more creation in a focused manner, involving all human beings as the stakeholders on the Earth.

With this dynamic vision in mind, GMRIT started its tryst with sustainability drive ever since its inception, in 1997. Today, with a *numero uno* green campus in the region, this sustainable institute has provided green leadership in a mission mode, and has made rapid strides in the direction of achieving global sustainability goals by involving all A team of students, faculty, experts from the community, Industries in the region and NGOs with the support of National Service Scheme (NSS), GMRIT– GAMYAM and GMRIT Community Radio are continuously putting on the efforts to

GMRIT Training Tomorrow's Engineers Today
GMR Nagar, Rajam-532 127
Srikakulam (Dist.)
Andhra Pradesh
CIN U80301AP2003NPL042195
T +91 (8941) 251 592/251 593/ 252 989
F +91 (8941) 251 591
W www.gmrit.org

- Sensitize and create awareness on the issues related to the environment protection
- Minimize and conserve the usage of water, power and other natural resources
- Handhold the stakeholders to adopt the best practices with the spirit of sustainability in protecting the environment
- Conduct regular audits to ensure the effective implementation of the processes
- Regularly review the effectiveness of the practices for continuous improvement

OBJECTIVES OF THE PRACTICES

- To maintain the eco-system on the campus towards conservation of natural resources
- To monitor and guide human activities, taking different actions to prevent harmful effects on the environment and natural resources
- To encourage the use of renewable energy resources replacing conventional energy sources (Solar Energy)
- To encourage the usage of pre-regulated water taps, faucets and auto flushing systems in the bathrooms, to conserve the water usage
- Encourage the usage of recycled water for all the toilet flushing and horticulture purpose
- Generation of biogas and organic fertilizers from kitchen waste & horticulture waste
- To sensitize the community by involving the students and faculty in "Green Campus Initiatives" through **SWACHH BHARAT initiative**
- To monitor and minimize carbon emission in the campus

As a way forward towards sustainable development, GMRIT started new initiatives to bring a change in the attitude of internal stakeholders as well as the residents of GMRIT campus. The first initiative was to bring awareness among the students and staff for maintaining a "**Zero Waste Campus"**. Further, proper care was taken from segregation of waste to the disposal.

GMRIT established a sewage treatment plant **(STP)** for the reuse of wastewater for gardening purposes and sewage sludge as fertilizer. A "**Biogas Plant**" was put to use the food and kitchen waste from hostels to produce gas, which in turn is used for cooking in the hostel. "**Sanitary Napkin Incinerators**" in ladies hostel were setup for proper disposal. The most appreciated best practice is the "**Pollution Free Thursdays**" where no vehicle is allowed to move in the campus. The **housewives and maids** in quarters are given necessary education in maintaining a plastic free residential area. Another form of dynamic interaction to accelerate campus sustainability involves the external stakeholders. This has resulted in a co-creative approach in various forms of stakeholder engagement. At the end, the existing Green office and residential practices with waste minimization dimensions such as Save Environment and adopt sustainability techniques, Use Less Paper and Practice Recycling, Plastic free campus represent the multiple pronged approaches in promoting and strengthening the campus sustainability initiatives on

* Chemical Engineering (CHE), Civil Engineering (CE), Computer Science and Engineering (CSE), Electrical & Electronics Engineering (EEE), Electronics & Communication Engineering (ECE), Mechanical Engineering (ME) & Information Technology (IT)

GMRIT Training Tomorrow's Engineers Today
GMR Nagar, Rajam-532 127
Srikakulam (Dist.)
Andhra Pradesh
CIN U80301AP2003NPL042195
T +91 (8941) 251 592/251 593/ 252 989
F +91 (8941) 251 591
W www.gmrit.org

waste minimization and management. Further, "**Fume Chambers"** also installed to manage chemicals and acids in the laboratories. In addition to the above, GMRIT is also focused towards conserving surface rainwater through "**Rainwater Harvesting Pits"** and maintaining watershed.

Visible Impact of Our Best Practices

- Increased awareness among the external and internal stakeholders on the issues related to the environment
- Effective Waste Management in terms of segregation of waste at its source leading to easy waste management
- Effective usage of recycled water for gardening and car washing
- Increased level of water table due to watershed management
- Less usage of electric power across the campus
- Mitigated the use of single use plastics
- Establishment of Plant Nurseries inside the campus enabling all the invited guests on to the campus to plant one tree sapling
- Reduced atmospheric temperature (i.e. drop in temperature) when compared to other major nearby towns
- Considerable reduction in carbon emissions
- More importantly trees sequester carbon, helping to remove carbon dioxide and other greenhouse gases from the air, which cools the earth