

**17.3.6 b – SDG6 Mapped with  
National Assessment and  
Accreditation Council (NAAC)  
Criteria**

## **GIST from NAAC Self Study Report (SSR) - (2014 – 2019)**

### **7.1.5 Waste Management steps including:**

- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Answer:

This institute is committed to follow a range of sustainable design features and practices in order to build and maintain, a green campus and to adopt "zero discharge".

### **Solid Waste Management (SWM) :**

- ❖ It is practiced to convert the waste generated at the campus, by way of segregation as organic waste, recyclable waste, inert waste and converting the same into another usable form
- ❖ This Institute has received a certificate of Appreciation from "Green Services Trust" for implementing the SWM project in the campus, in an environment friendly manner and diverted 1,44,655 Kg of waste from landfill to recycling
- ❖ Every year this institute contributes waste papers towards national recycling initiative organized by ITC Ltd., (paper boards & specialty paper division) which is equivalent to saving 750 trees on an average
- ❖ The collected and segregated waste will be unloaded at the waste processing yard and processed through 15 staff called as 'Green friends'
- ❖ The waste generated at the campus will be processing as per SWM Rules 2016
- ❖ Bio-degradable waste is composted under windrow composing method
- ❖ Recyclable waste is further segregated and disposed through vendors on need basis
- ❖ Sanitary napkins waste is safely disposed using an incinerator fitted with wet scrubber for pollution control
- ❖ Food waste is fed in the bio-gas plant and is utilized for cooking purpose Several SWM training and awareness programs are conducted
- ❖ The harvested bio compost of 2000 kg (approx.) is used for gardening

## Liquid Waste Management :

- ❖ 2 nos. of sewage treatment plants (STP) of 500 KLD capacity are available
- ❖ The sewage is characterized by presence of organic, inorganic and suspended solids
- ❖ The chain of treatment is aimed to remove such pollutants from the waste water so that it can be effectively reused
- ❖ The treatment system consists of preliminary, Primary and Secondary
- ❖ The Eco-Bio Bricks helps in the attachment of bacteria in the treatment system and helps in the better removal of organic content from the wastewater
- ❖ The STP is maintained regularly
- ❖ Treated water is used for landscaping and flushing purposes
- ❖ The physical, chemical and biological characteristics of the treated water are tested to ensure the efficiency
- ❖ Some of the important parameters checked include pH, solids, Chemical oxygen demand, Biochemical oxygen demand, Nitrates, chlorides etc.,

## E-Waste Management :

- ❖ E-waste and hazardous waste are handed over to the authorized processors and certificate of destruction is obtained
- ❖ All obsolete electrical and electronic wastes are disposed as e-waste to vendors for proper destruction, without damaging the environment and certificates are obtained
- ❖ Electronic waste that are disposed includes Old TVs, computer monitors, printers, scanners, keyboards, mouse, , Radio,, Phones, Fax, Photocopy machines, cables, Flip flops, memory chips, motherboard, compact discs, cartridges etc.,
- ❖ Ensured that generated e-wastes are not disposed, along with the other solid wastes generated
- ❖ GEMS recycling Pvt. Limited, Neervallur Village, Kancheepuram collects all the e-waste
- ❖ SOP is in place for handling the e-waste

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 7.1.6 Rain water harvesting structures and utilization in the campus

Answer:

Being a proactive and environment conscious organisation, this is one of the pioneers in implementing solutions, to save water, including rain water harvesting

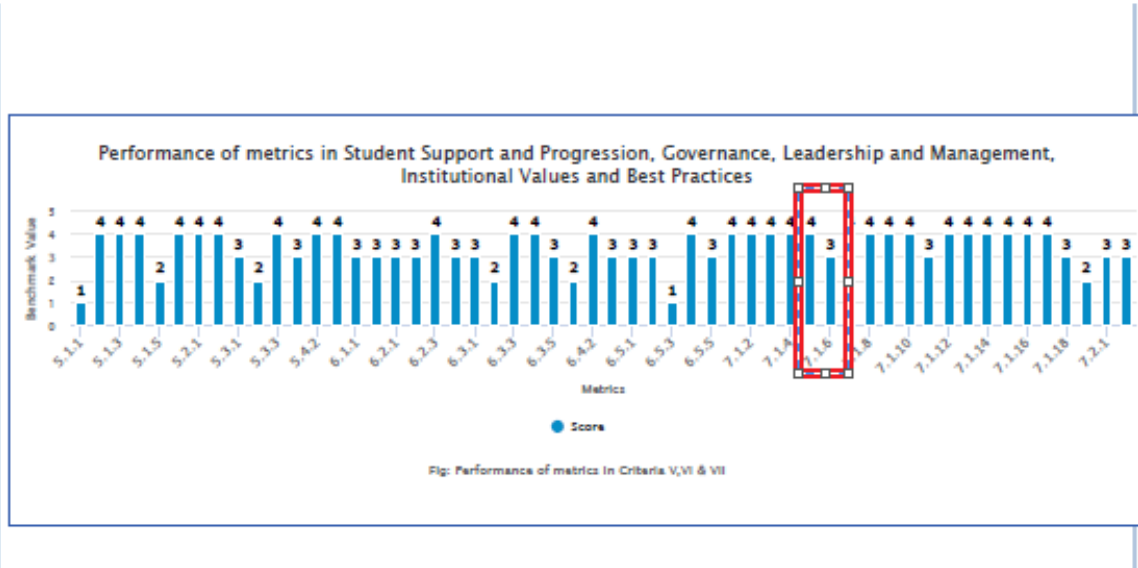
- ❖ The institute has implemented rain water harvesting system in the all the academic blocks and hostels, with a strong desire to utilize the rain water, at maximum extent.
- ❖ Rainwater harvesting facility is to collect rainwater from the roof of all buildings.
- ❖ The harvested water is diverted to open wells in the institute campus, Men's Hostel and ladies hostel, thereby recharging the ground water in this campus.
- ❖ The placement of rainwater harvesting facility, within the campus has been decided by considering the profile of the land, so as to drain the maximum amount of water collected, with ease.
- ❖ Necessary and sufficient plumbing connections are provided to trap the rain water from the roof tops.
- ❖ The underground connections are connected in such a way that the water is collected from the roof top and the same is drained to the sumps, through the recharge pits, which would be connected to the existing wells of the campus.
- ❖ Two numbers of exclusive 10,000 lit capacity each, sumps are made available to collect the rain water.
- ❖ The rainwater harvesting structures are constructed as per the statutory norms.
- ❖ The recharge pits are provided to collect the rain water through series of filter beds. This will make the collected water more potable.
- ❖ Some of the salient features of the recharge pit are described below :
  - A mesh is provided at the inlets of rain water pipes so that solid waste / debris is prevented from entering the pit system.
  - The recharge pits are of size 2m x 2m x 2m is excavated
  - The recharge pit comprises different set of filter media. The filter media comprises of thick layers of boulders at the bottom followed by layers of gravels and coarse sand.
  - This enables the filtration of water and also prevents the deposition of silt on the recharge pit.
  - Access manhole frames and covers are provided.

- ❖ The rain water is also stored in underground sumps of Life Science block, Mechanical Science Block and New Staff Quarters.
- ❖ The total water consumption in the institute is 0.6 MLD,(i.e) 0.5 MLD is procured through tankers and 0.1 MLD is extracted from open wells in the campus.
- ❖ The water requirement is met by treating the rain water stored in sumps using Reverse osmosis systems.
- ❖ The yields of these systems are about 45-50%.
- ❖ The treated water are tested for particulate contents and based on the results, either the water would be used for domestic purposes or for gardening purposes.
- ❖ Some of the salient features of the rain water harvesting system available at this institute, include :
  - Simple construction / assembly
  - Trouble free installation and maintenance
  - Easy to use and operate / manage
  - Compact and handy
  - Operates on minimal gravitational force / pump head.

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**NAAC Score obtained for the relevant metric on four-point scale is boxed**

Graphical Representation based on QnM & QIM



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