



Criterion VII - Institutional Value and Best Practices

7.1 - Institutional Values and Social Responsibilities

7.1.2. The Institution has facilities and initiatives for,

1. Alternate sources of energy and energy conservation measures.
2. Management of the various types of degradable and non-degradable waste
3. Water conservation
4. Green campus initiatives
5. Disabled-friendly, barrier free environment

POLICY DOCUMENTS ON THE GREEN CAMPUS

Sr. No	Documents	Page No
1.	Policy Document on Green campus – Best Practices in AICTE approved Institutions.	<u>2</u>
2.	Standard Operating Procedure for Waste Management of AIT Campus	<u>5</u>

1. Best Practices in AICTE approved Institutions

Institute Name: Army Institute of Technology
Institute State: Maharashtra
Institute Address: Pune-Alandi Road, Dighi Hills, Pune - 411015
Principal Name: Dr. B. P. Patil
Contact Number: 9689907475 **Email :** principal@aitpune.edu.in

Best Practices By Institute:

Best practices followed in AIT Green Initiative

Energy conservation

- Automatic power factor controller (APFC) is installed in the power house which gives power factor of unity.
- Almost all street lights, toilets and corridors are provided with the LED fittings.
- Auto flush and auto cut off system is installed in the hostel toilets to save electricity and water.

Use of renewable energy

- Interactive solar power generating system of 225 KW is provided on the roof top of the academic building. With the installation of this system 40 to 45 % of the total electricity requirement is met.

It also has additional advantages like: no escalation in power cost for 25 years, up to 20% rebate in property tax under Green Building Norms, uninterrupted energy use during day time round the year.

- Apart from this solar water heating system is provided in all boys and girls hostels for hot water requirement.

Water harvesting

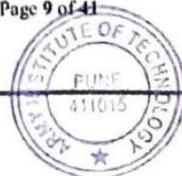
- Water recycling or waste water treatment plant of 200 m³ or 2,00,000 liters capacity has been constructed. The principle of the treatment is based on Phytorid technology. The Phytorid Technology treatment is a subsurface flow type in which waste water is applied to cell/system filled with porous media such as crushed bricks, gravel and stones. It consists of three zones (i) Inlet zone composed of crushed bricks and different sizes of stones (ii) Treatment zone consist of same media as in inlet zone with plant species and (iii) Outlet zone. Daily 150 m³ or 1,50,000 liters recycled water is available. This is being used for landscaping of the institute. Institute also proposes to further use this recycled water for flush systems. This would save 30% of fresh water.

- Rainwater harvesting is being done near Hostel Flank "H". This is being further developed in the current year.

Efforts for carbon neutrality

- By conserving and reusing energy the need for excessive use of fossil fuels can greatly reduce, thus reducing carbon emissions. Installing solar panels helps in reducing carbon emissions. The installation of 225 KW solar power systems has saved the amount of carbon dioxide released into the

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Army Institute of Technology
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Army Institute of Technology
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air. Thus the emission of carbon dioxide is well controlled with these efforts in the institute to achieve carbon neutrality.


Plantation

- Every year students along with the garden staff plant trees. The saplings have been obtained from Vanrai NGO or donated by Tata Motors. Subsequent care is taken by the gardeners. Due to this program over the years the campus has become lush and green. Also, a herbal garden consisting of plants with medicinal values is cultivated in the college campus.

e-waste management

- E waste generated is first reused in the campus itself. Then discarded waste is disposed off by board of officers to authorized vendors




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Army Institute of Technology
Dighi Hillis, Pune - 411015

2. Standard Operating Procedure for Waste Management

STANDARD OPERATING PROCEDURE (SOP) FOR WASTE MANAGEMENT OF AIT CAMPUS

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INTRODUCTION

1. This SOP has been formulated to lay down the procedure, responsibility and result of waste management and disposal of garbage at AIT Campus. A 'swachh campus' can create an ideal ecosystem by providing disease free environment to support in maintaining healthy and green campus. The intent of the SOP is adopt the best practices of Waste Management are 'Refuse, Reuse, Recycle, Recover and Regenerate (5Rs)' for managing the waste to convert it into 'wealth'.

AIM

2. The aim of this SOP is to lay down procedure for removal, segregation and disposal of garbage to ensure clean and green campus.

RESPONSIBILITY

3. Estate Supervisor is overall responsible for waste management of AIT Campus. He will be assisted by the following staff for waste management:-

- (a) 01 x Supervisor (Conservancy and Housekeeping Staff).
- (b) 01 x e-rickshaw driver with e-rickshaw.
- (c) 01 x Housekeeping and/or Conservancy staff.

PROCEDURE

4. Following procedure will be followed for disposal of waste :-

(a) **Waste Generated from Cook Houses and Dining Halls.** Waste materials generated from Cook Houses and Dining Halls will be collected and disposed at the **PCMC Garbage Dump** located near **Magazine Chowk, Dighi**, on regular basis. Food waste material will also to be sent to piggery for animal consumption by the respective vendors.

(b) **Waste Generated from Academic Block, Hostels and Staff Quarters.** Adequate housekeeping staff with necessary cleaning materials are provided for regular maintenance of these areas. All the waste generated from these areas will be brought in e-rickshaw as door to door service to the '**Waste Management Area**' located behind the SN Bose Boys' Hostel for further disposal/ segregation in the different categories as below :-



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(i) **Plastic/ Metal Waste.** Waste materials of Plastic and Metallic in nature collected from Academic Block, Hostels and Staff Quarters to be segregated and dumped near the earmarked location '**SCRIP DUMP**'. The items will be sold as scrap material by a Board of Officer. The revenue generated from these to be deposited into College Account.

(ii) **Bio-degradable Waste.** Waste materials of bio-degradable nature (eg Paper and food waste, Abattoir waste, Dead animals/ plants etc) collected from Academic Block, Hostels and Staff Quarters will be dumped in the '**COMPOST PIT**'.

(iii) **E-Waste.** The segregated E-Waste product to be handed over to PCMC Garbage Dump located near Magazine Chowk, Dighi for **AUTHORISED RECYCLER** for disposal. e-waste materials to be kept in isolated area, after it becomes non-functional/ un-repairable so as to prevent its accidental breakage. Certain obsolete e-waste like running Computers/ Keyboards/ Mouse etc will be donated to school with poor infrastructure nitrated as **social service activity, under NSS Club.**

(iv) **Tree Branches/ Leaves.** Tree trunks/ branches of the dead and fallen trees will be kept separately behind the SN Bose Boys' Hostel near the 'Waste Management Area'. The leaves will dumped in the '**COMPOST PIT**' and small branches will be dumped in the '**COMPOST POST**'. The tree trunk of girth more than 3" will be disposed off by auction.

(v) **Grass Cutting Waste.** Waste materials generated out of Grass Cutting to be dumped in the '**COMPOST PIT**' on regular basis near SN Bose Boys' Hostel.

5. **Maintenance of Compost Pit.**

(a) Add water to the compost pile as needed to keep the materials damp but not saturated. During rainy seasons, apply water during dry periods, as rain adds moisture to the pile. Turn the pile more frequently or add more dry, brown materials if the pile becomes too wet. For expeditious the process of decomposition suitable medicines as available in local market can be used after consultation of experts as the Horticulture.

(b) Periodical cleaning/ recycling at regular interval to be done without emptying the pit completely to preserve the biological agents working for decomposition of vegetation.

6. **Use of Manure.** Compost and pit humus can be beneficially used to **improve the quality of soil.** They add nutrients and organics and improve the soil's ability to store air and water. Especially vermin compost improves the soil structure because of the wholes that earthworms have dug. This is also going to help in growing organic vegetation without use of commercial fertilizer. It will help in reducing the diseases in human being.

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CONCLUSION

7. The above procedure will be strictly adhered for removal/ segregation and disposal of garbage to ensure clean and green campus and generate revenues by selling scrap and saving expenditure on purchases of fertilizers for vegetable gardens and other gardens maintained inside the Institute.

File No : AIT/0001/Gen Ruling/Adm
Army Institute of Technology
Alandi Road, Dighi Hills, Pune - 15

(MK Prasad)
(MK Prasad)
Col
Jt Director

Date: 18 Aug 2021

COUNTERSIGNED

(Abhay A Bhat)
(Abhay A Bhat)
Brig
Director

Distribution

- | | |
|---------------|----------------------|
| 1. Principal. | 7. Estate Supervisor |
| 2. HOD E&TC. | 8. All Wardens. |
| 3. HOD Mech. | 9. All Messes |
| 4. HOD Comp. | 10. MI Room. |
| 5. HOD IT. | 11. NSS Club. |
| 6. HOD ASGE. | 12. Office Copy. |



(Principal)
Principal
Army Institute of Technology
Dighi Hillis, Pune - 411015