VIDARBHA INSTITUTE OF TECHNOLOGY
Uti,Umrer Road-441209, Tel:07116-281155/56 Fax:07116-281154
E-mail id:kdmsociety@gmail.com, Website:www.vitnagpur.com
Approved by A.I.C.T.E.,New Delhi,Govt. Of Maharashtra & Affiliated to RTM Nagpur University, Nagpur

Solar panel

Generated Unit= 4244 Kwh

Used unit of solar panel=1358 Kwh

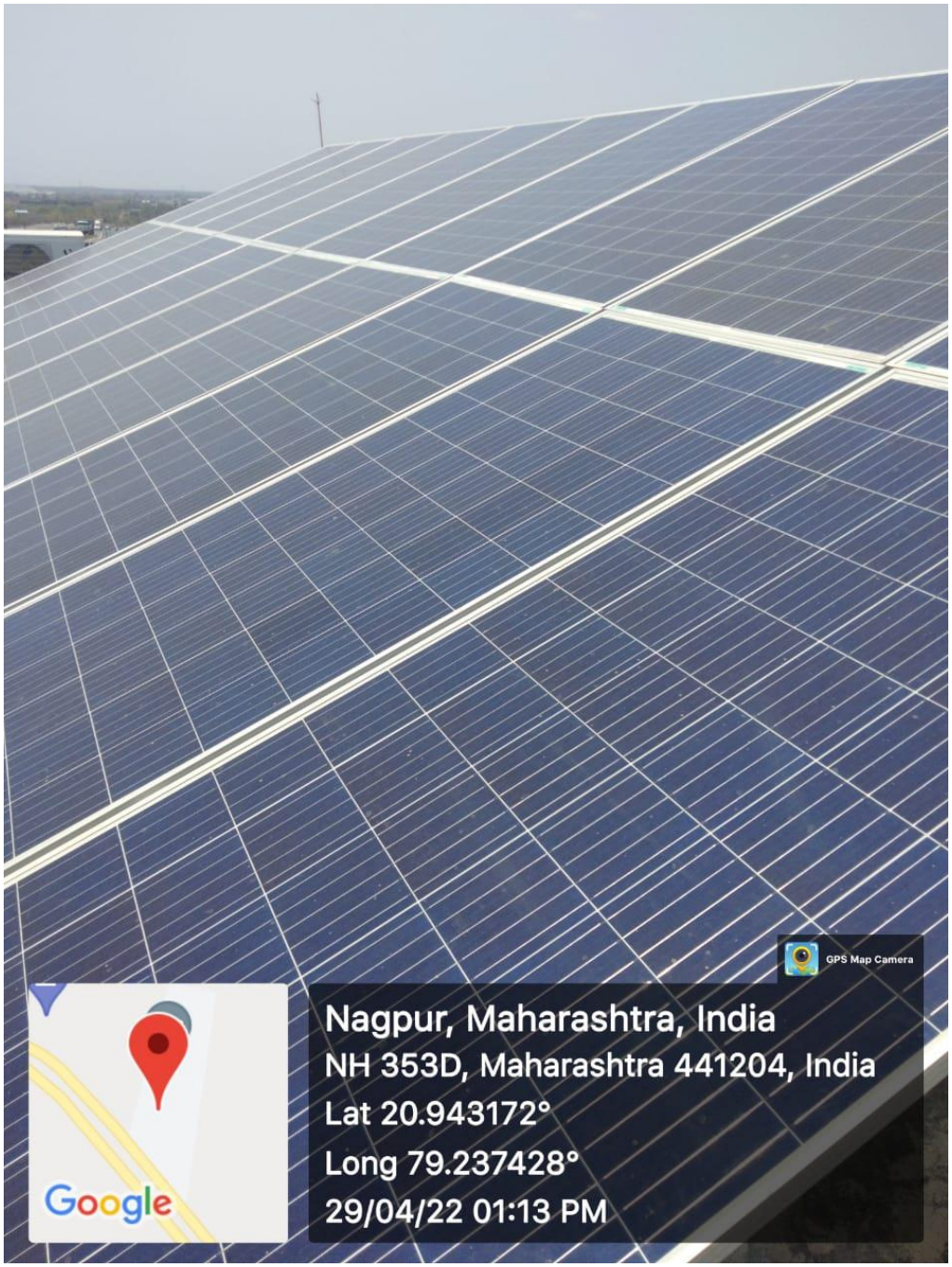
M.S.E.D.C.L used unit=2585 Kwh

Used unit of solar panel+ M.S.E.D.C.L used unit

=1358+2585

=3,943 Kwh.

Total Electricity Generated by solar panel=120 unit per day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Tax Invoice

3e Perpetua Ventures
essential efficient energy

"Sai Appartment", F.No. 201,
Opp. Agyaram Devi petrol pump, Ganeshpeth, Nagpur
Cell : +919970014130
email : 3eperpetua@gmail.com

◆ PROJECT CONSULTANT AND SYSTEM INTEGRATOR FOR RENEWABLE ENERGY

◆ CHANNEL PARTNER FOR WAAREE ENERGIES LIMITED. FOR ROOF TOP SOLAR PV SYSTEM

GSTIN NO : 27AABFZ6136B1ZB

To	Place of Supply	Invoice No	Dated
Vidarbha Institute Technology Run By KDM Education Society KH.No. 153,153/1,UTI Tq. UMRED, Dist. NAGPUR	UMRED	Per3E/21-22/173	02.03.2022
GSTIN NO : 27AA	30.150 KW		

Description of Services	Qut	Rate	HSN CODE	Amount
Pre Galvanized Structure for 30.150 KW Plant	4	30000	7360	120000
Electrical Wires & Fittings Cable for 30.150 KW Plant as per system requirment	LS	30000	73089090	30000
Meter with Meter Testing for 30.150 KW Plant	1	125000	9028	125000
Installation , Testing & Commisioning	1	112000	73089090	112000
Other Expenses (Including Transportaion,	1	20000	73089090	20000
Taxable Value				407000
ADD CGST				36630.00
ADD SGST				36630.00
Grand Total				480260

Amount Chargeable (in words)
Rs Four Lac eighty thousend two hundred sixty only
The rate and time for work may be more due to PANDIMEK conditions

HSN CODE	able Va	CGST		SGST		Total Tax Amount
		Rate	Amount	Rate	Amount	
7360	1E+05	9%	10800	9%	10800	2160
73089090	30000	9%	2700	9%	2700	540
9028	1E+05	9%	11250	9%	11250	2250
73089090	1E+05	9%	10080	9%	10080	2016
73089090	20000	9%	1800	9%	1800	360
Total			36630		36630	73260.00

Company's PAN: AABFZ6136B
Bank Name : HDFC Bank (Laxmi Nagar)
Account No : 50200020677410
IFSC CODE : HDFC0003358

Note-Please make cheques in favor of " 3E PERPETUA VENTURES"

3e Perpetua Ventures Nagpur

For 3E Perpetua Ventures

Authorised Signatory

Tax Invoice

3e Perpetua Ventures
essential efficient energy

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GSTIN NO : 27AA	30.150 kw		

Description of Services	Qut	Rate	HSN CODE	Amount
Solar Poly cryistalline Panel Waaree - Make ,335Wp)	90	9224	85414011	830160
Inverter 25 KW (K SOLAR Make, 5 year waareenty)	1	195000	85044090	195000
Taxable Value				1025160
ADD CGST				61509.6
ADD SGST				61509.6
Grand Total				1148179

Amount Chargeable (in words)
Eleven lakh fourty eight thousend one Hundred seventy nine Only.
The rate and time for installation may be more due to PANDIMEK condition

HSN Code	Taxable Value	CSGT		SGST		Total Tax Amount
		Rate	Amount	Rate	Amount	
85414011	830160	6.00%	49809.60	6.00%	49809.60	99619.20
85044090	195000	6.00%	11700.00	6.00%	11700.00	23400.00
Total			61509.6		61509.6	123019.20

Company's PAN : AABFZ6136B

2. *Management of the various types of degradable and non-degradable waste*

LIQUID WASTE SYSTEM (DRAINAGE SYSTEM)

CENTRAL FACILITY FOR E-WASTE STORAGE

7.1.2

3) Water conservation facilities available in the Institution:

1. Rain water harvesting
2. Borewell /Open well recharge
3. Construction of tanks
4. Waste water recycling

Rain Water harvesting:

The college has been undertaking sustained efforts related to rain water harvesting in the form of arranging soak pits.

As a part of improving the Ground Water level in the campus, we have constructed multi-purpose percolating pits at various locations. We have identified four locations in our college.
In addition to 4 rain water harvesting bore-wells Rain water harvesting pits were provided in various locations covering entire campus and are given below.

- Administrative Block backside, beside compound wall
- Opposite to EE Block
- side of building and compound wall Between ME block
- near bore well Between canteen and EE block
- Boys hostel gate near borewell
- side of old hostel building.

In our campus the soil profile is clay up to a depth of 110 feet below the existing ground surface. The bores were driven up to a depth of 150 feet, out of which in the bottom 40 feet depth perforated pipes are laid to facilitate the water flow to the surrounding aquifer.

OBSERVATION: In the last year the ground water level was observed at depth of 100 feet below the existing ground surface. Due to heavy rains and construction of percolating pits in our campus this year the ground water level was improved and available at a depth of 30 feet below the existing ground surface. This is an improvement in the ground water level. The average annual rainfall is considered as 1067mm.

UTILIZATION: The rain water harvested in Percolating Pits improved the ground water level from 100 feet to 30 feet below the ground surface which is used for drinking and other purpose all round the year including peak summer.


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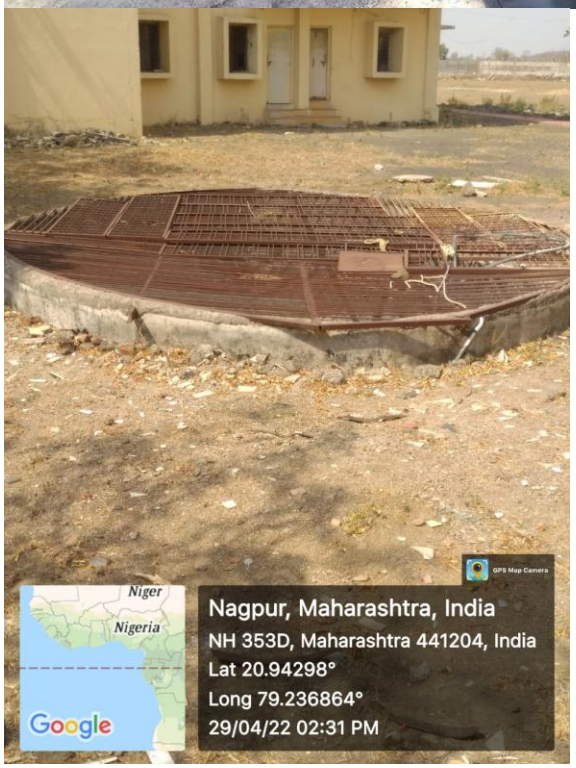
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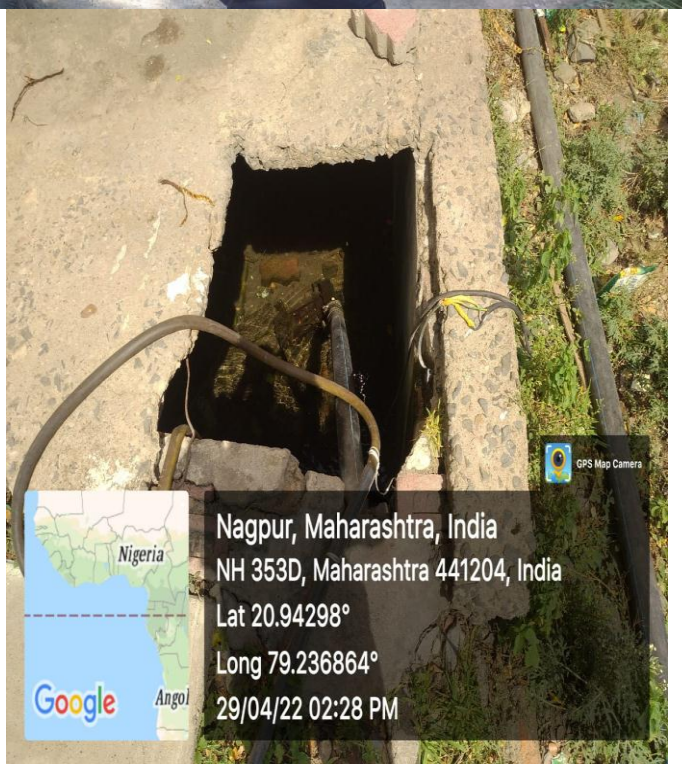
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GREEN CAMPUS INITIATIVES

Contents

CHAPTER -1: PREAMBLE

A Green Campus is a place where environmental friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. The green campus concept offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind.

Greening the campus is all about sweeping away wasteful inefficiencies and using conventional sources of energies for its daily power needs, correct disposal handling, purchase of environment friendly supplies and effective recycling program. Institute has to work out the time bound strategies to implement green campus initiatives. These strategies need to be incorporated into the institutional planning and budgeting processes with the aim of developing a clean and green campus.

Major Green campus Initiatives in VIT campus:

- Rain water Harvesting
- Institute community Garden
- Recycling bin for e-waste
- Use of LED
- Digital Library/ e-learning centre
- Restricted entry of vehicles
- Restricted Parking
- Sewage treatment Plant
- Pedestrian friendly Road
- Paperless office
- Plastic free campus
- Plantation of exotic fruits

CHAPTER -2: INTRODUCTION TO THE CRITERION

A Green Campus is a place where environmental-friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. The green campus concept offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind. In VIT, we practice and maintain the following criteria and policies to make it a pollution free, energy saving green campus.

GREEN CAMPUS POLICY

1. Restricted entry of vehicles

- All the vehicles of college staff/ faculty members should be getting the emission certification before entering the vehicle in college campus.

2. Pedestrian-friendly pathways

- VIT campus follows the Pedestrian-friendly pathways in all the buildings.
- Pedestrian-friendly pathways are properly marked with suitable logo/sign.

3. Ban on use of Plastic

- The college continuously committed to work towards plastic-free campus.
- In the VIT campus there is complete ban on single-use plastics in class room, labs canteens in the institution's premises and hostels.

4. Landscaping with trees and plants

- As per the green practices in the campus VIT is moving in the direction of a Green Institution in Maharashtra planting more trees within and outside the campus.
- Medication plants and more fruit plants and trees have been planted to clean the atmosphere

BENEFITS OF THE GREEN-CAMPUS

Benefits to the Environment	Benefits to Institute
• Environmental impacts of the Campus are quantified sotargets and performance indicators can be set. Improves overall environmental performance. Improves waste management Decreases resource use Improves management of environmental aspects	• Forum for university management, academic staff and students to meet. Creates a more balanced campus community Empowers students & staff Encourages innovation & changes Prevents and reduces environmental impacts.

Benefits to Students and Learning	Benefits to Local and Wider Community
• Improves learning outcomes • Research skills (developing an action plan, investigation, setting targets, monitoring progress and reporting progress) • Transferable skills to workplace: communication, facilitation, teamwork, committee servicing • Introduction to new topics • Curriculum links: using data currently generated, Investigative research, problem based Research	• Sets an example in the locality • Involves local groups and representatives • Shares experience and best practice • Links to other An Taisce programmes - Clean Coasts - Green Home - Green Schools - National Spring Clean - Greening Communities • Reduces waste generated, travel impacts etc. in community. • Institute becomes a better neighbor

Lush Green Institute Garden

Green Landscaping with Trees and Plants – the campus is beautifully landscaped and has received appreciation in form of many awards and certificates. Plantation of around 1000 plants has been done including a number of exotic plants. A rich variety of flora and fauna predominates the natural landscape of the campus. Exotic fruit trees are also planted in the campus.

VIT has received a Sanitary Certificate from Gram Panchayat, Rehmatpur stating presence of facilities such as ventilated rooms, proper illumination, spacious premises, filtered water and clean restrooms. The institution has also applied for AICTE Clean and Smart Campus Awards as part of its resolution towards green campus.

RAIN WATER HARVESTING

Water scarcity is serious problem throughout the world for both urban & rural community. Urbanization, industrial development & increase in agricultural field & production has resulted in overexploitation of groundwater & surface water resources and resultant deterioration in water quality. The conventional water sources namely well, river and reservoirs, etc. are inadequate to fulfill water demand due to unbalanced rainfall. While the rainwater harvesting system investigate a new water source.

In VIT campus a rain water harvesting system is made. The runoff from the terrace of the college building is channelised into a recharge well located near the southern end of the academic block. The runoff from the unpaved area is intercepted at a collection trench. From here the runoff eventually drains into an abandoned open well, which facilitates groundwater recharge.

DIGITAL LIBRARY/ E-LEARNING CENTRE

VIT is equipped with a digital library. The user can get his/ her information on his own computer screen by using the Internet. Actually it is a network of multimedia system, which provides fingertip access. A brief summary of e-learning resources is listed below

Online Journals (Engineering)	687 Nos.
e-Books	3000

Outcomes of e- learning centre are:

1. No physical boundary: The user of a digital library need not to go to the library physically, people from all over the world could gain access to the same information, as long as an Internet connection is available.

2. Round the clock availability: Digital libraries can be accessed at any time. 24 hours a day and 365 days of the year

3. Multiple accesses: The same resources can be used at the same time by a number of users.

4. Structured approach: Digital library provides access to much richer content in a more structured manner i.e. we can easily move from the catalog to the particular book then to a particular chapter and so on.

5. Information retrieval: The user is able to use any search term bellowing to the word or phrase of the entire collection. Digital library will provide very user friendly interfaces, giving click able access to its resources.

6. Preservation and conservation: An exact copy of the original can be made any number of

times without any degradation in quality.

7. Space: Whereas traditional libraries are limited by storage space. digital libraries have the potential to store much more information, simply because digital information requires very little physical space to contain them. When the library had no space for extension digitization is the only solution.

8. Networking: A particular digital library can provide the link to any other resources of other digital library very easily thus a seamlessly integrated resource sharing can be achieved.

9. Cost: The cost of maintaining a digital library is much lower than that of a traditional library. A traditional library must spend large sums of money paying for staff, book maintains, rent, and additional books. Digital libraries do away with these fees.

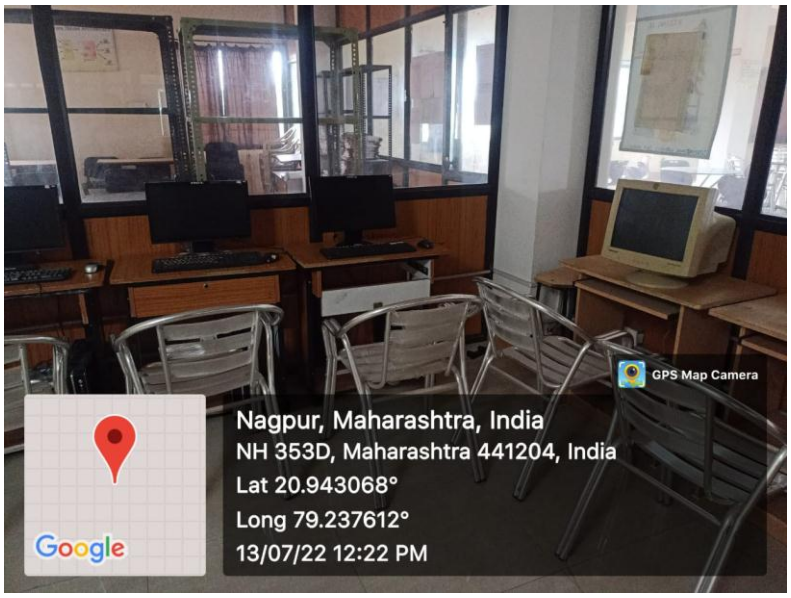

Fig 5: VIT Library

RESTRICTED ENTRY OF VEHICLES AND PARKING

In VIT campus, entry of vehicles is restricted. At the main gate of college, visitors' entry register is maintained that records the vehicle license number of all visitors. In its endeavour to reduce the pollution in campus, authorities at College of Engineering Roorkee (VIT) have issued vehicle security passes to the VIT employees for their vehicles.

Fig 6: Vehicle Entry Pass

RECYCLING BIN FOR E-WASTE

Recycling bins are kept at different locations of VIT Academic block, lab block, computer centre and at hostels with a view to conserve energy, help the environment, reduce pollution, slow global warming and lower waste products in landfills. By recycling, people can have something to do with the earth's overall health and keep the air, water and land clean. Through recycling, less material are placed in the landfills, and there is more room in the landfills for non-biodegradable garbage materials.

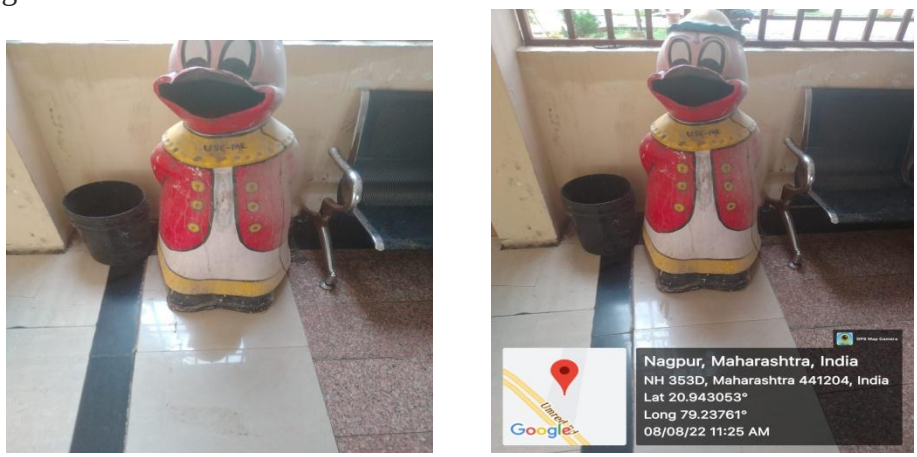

Fig 9: Dustbins for waste segregation

USE OF LED

As a step towards energy saving, total lightings of class rooms, labs and hostel are replaced with LED panels.

The outcomes of LED lights are as given below:-

- Long life. The components of an LED and the way that they generate light significantly extend

the lifespan of these bulbs. ...

- Energy efficiency. ...
- High brightness and intensity. ...
- Exceptional colour range. ...
- Low radiated heat. ...
- Reliability. ...
- Instantaneous illumination. ...
- Directional lighting.

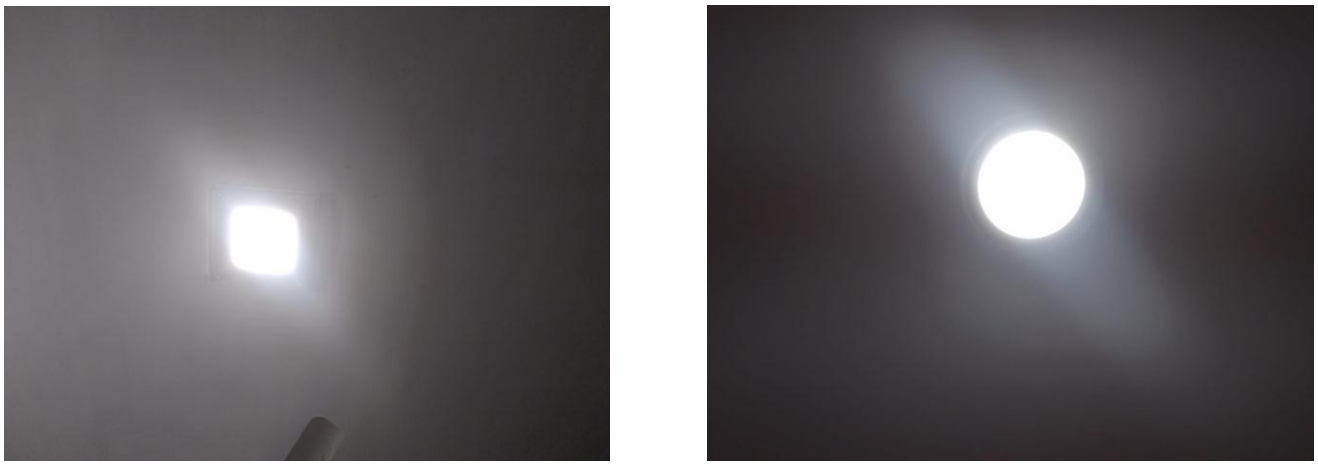

Fig 10: LED lights

USAGE OF BICYCLES AND PUBLIC TRANSPORT

Public Transport – the institute provides bus services to and from Nagpur to all faculty members and staff. The service is available for the students at timings to travel. Besides this, Students use College transport to travel to and from college every day.

Fig 13: VIT buses for transport

PEDESTRIAN FRIENDLY ROAD

All around the campus of VIT, tiles paved pedestrian friendly roads have been constructed for smooth commuting of students, faculty and other staff members of the institute. These roads are maintained on regular basis for keeping them free of mud, dust and any other vegetation growth. On either side of the roads, proper concrete boundaries are made and painted. These well-maintained roads add the beauty of the VIT campus.

Fig 14: Pedestrian Friendly roads inside campus

PAPERLESS OFFICE

All offices work on paperless concept by digital display of all the notices and information through mail, Google groups, WhatsApp Groups, Google classrooms, etc. as much as possible. High speed Wi-Fi facility is also provided for this. Other practices like, re-use of one-sided paper for notes, sketches, rough work, rough printouts, etc.; cashless transactions, and utilizing multi user printer at central administrative locations of the Institute office also aims at reducing the use of papers.

PLANTATION OF EXOTIC FRUITS

The campus is beautifully landscaped and has received appreciation in form of many awards and certificates. Plantation of around 1000 plants has been done including a number of exotic plants. An active ECO club ensures the organization of tree plantation on World Environment Day, College level Green Festival HARITIMA and various awareness programs & events every year. A rich variety of flora and fauna predominates the natural landscape of the campus. Exotic fruit trees are also planted in the campus.

PURE VEGETARIAN CAMPUS

A strict vegetarian food is severing in VIT mess and cafeteria. The benefits of vegetarianism are listed as under

- it brings health benefits
- it is a more ecologically sustainable option
- they have concerns about the treatment of animals
- it is part of a broader lifestyle choice

SOLAR PLANT

In VIT Campus, especially in hostels solar water heaters are used. By Using, solar water heaters It is possible to reduce energy use and the associated costs. Such a system does not depend on fossil fuels and takes energy from the sun to heat stored water. It, therefore, saves money, which is a major advantage of solar

heating systems. Also, it does not pollute the environment.

NO SMOKING CAMPUS

As an initiative to make our college campus completely smoke and tobacco free, smoking and chewing of tobacco is strictly prohibited in VIT campus.

7.1.2

5 The institution has disabled friendly, barrier free environment.

Build environment with ramps/lifts for easy access to classrooms
Disabled friendly washrooms

RAMP FOR DISABLED STUDENTS FOR THEIR EASLY ACCESS TO CLASS ROOM

(Ramp for easy access to classrooms)