

# **7.1.6**

# **Green Audit**

# **And**

# **Energy Audit**

**Survey No 48, Gowardhan, Gangapur Road,  
Nashik - 422 222. Maharashtra, India  
[www.jitnashik.edu.in](http://www.jitnashik.edu.in)**

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## MM CONSULTANCY SERVICES

BEE Certified Energy Auditors, MEDA Consultant & Chartered Engineers.

43, Niwas River View, Shankar Nagar, Gangapur Road, Nashik-422 013. (Maharashtra-India.)

Contacts 7058015178 Email-22mbhandare@gmail.com.

### CERTIFICATE.

### TO WHOMSOEVER IT MAY CONCERN.

This is to certify that Green Audit at **Jawahar Education Society's Institute of Technology, Management & Research, Nashik** was conducted on 29<sup>th</sup> August 2024. College has submitted necessary data and credentials for scrutiny. The activities and measures carried out by the college have been verified. The efforts taken by the college towards environment and sustainability is highly appreciated and commendable.

This Certificate is valid till 28<sup>th</sup> August,2025.

Certificate No.—JIT/GA/01/2024

Date—29<sup>th</sup> August, 2024.



Mukund V. Bhandare  
Executive Director & Auditor,  
For, MM Consultancy Services,  
Nashik.

BACK

# GREEN AUDIT REPORT

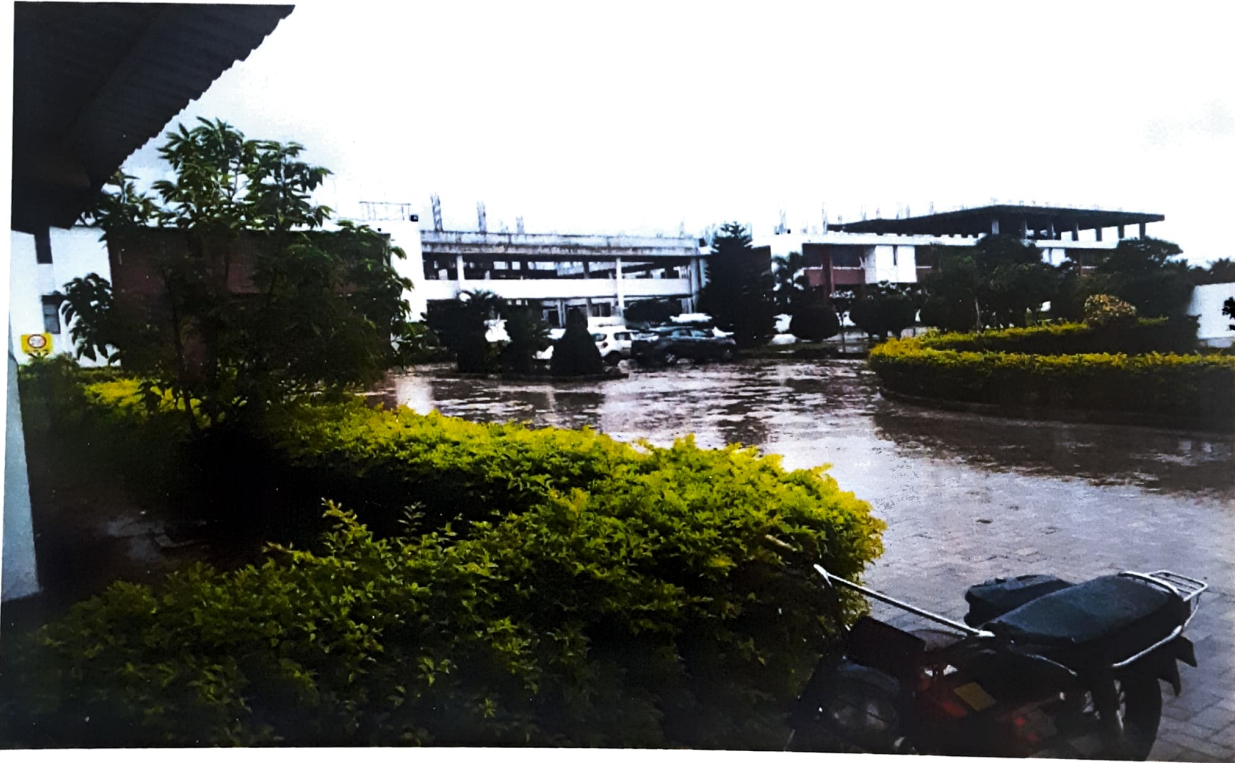
## FOR

### Jawahar Education Society's

INSTITUTE OF TECHNOLOGY, MANAGEMENT & RESEARCH,  
NASHIK

Survey No.48, Gowardhan, Gangapur Road Nashi

**Date of Audit—Aug 2024.**



**PREPARED BY—**

**M.M. Consultancy Services,**

**Nashik.**



## INTRODUCTION

After setting up several successful schools and educational institutes, including advanced medical colleges across Maharashtra and also the renowned A.C. Patil College of Engineering, Jawahar Education Society brings quality engineering education to Nashik, with the establishment of Jawahar Education Society's Institute of Technology, Management & Research, Nashik popularly known as JIT, Nashik. JIT's campus is situated in the heart of Nashik, one of India's fastest growing cities. In the last five years, Nashik has seen a major uplift in terms of urban development, infrastructure and industrialization. Malls, multiplexes, business centres, educational institutes, hotels, etc. have sprung up in a very short time period, indicating Nashik's growth spurt. The city boasts of its pleasant and cool climate, picturesque surroundings, high standard of living, greenery and well-developed, future-planned infrastructure. Nashik's growth has attracted the corporate business sectors of India and abroad, leading to ample job opportunities and demand in the technical and manufacturing domains.

## *Institute Vision and Mission*

### **Vision**

To provide quality education and training to produce the competent engineers and researchers.

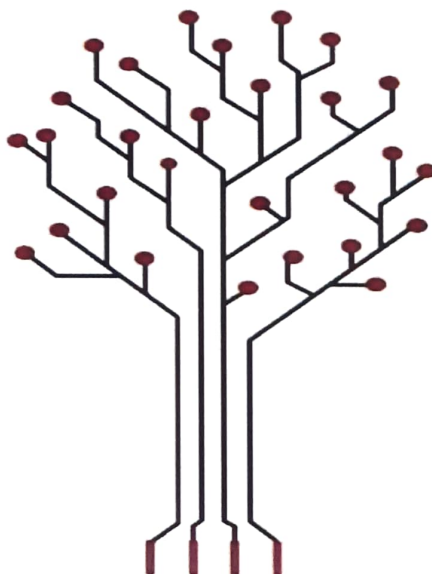
### **Mission**

- To impart knowledge and skill based education in collaboration with Industry, Academia and Research Organization.
- To undertake collaborative environment friendly projects to bring Environment Consciousness.
- To implement the advanced technology to benefit the society.

### *princiipal*

**Dr. M. V. Bhatkar**

**Ph. D. (IIT Bombay)**



## Present Scenario—

JIT building design provides adequate day light & ventilation for all rooms & corridors.

Building construction is still in progress & there is a provision for Rain water harvesting at present but more roof area will be available for rain harvesting after completion of Building in future.

JIT has already placed order for 15 Kw solar roof top system & have replaced 428 bulbs with LED. Solar plant is expected to be commissioned in Dec-2024.

Ambient air monitoring facility with monitoring system exists & is being used.

JIT is very keen to take initiatives for improving environment & is committed to spend for green initiatives & waste management in future.

Organic waste is being handled in Vermi- Composting Plant.

The waste water generated from Campus from Canteen & WC is being treated in soak pit.

Regular Tree Plantation program is in place—No. Of Big trees -495, No. Of small Trees—7862.

Regular work shops & training programs are being organised on regular basis in Campus for Environmental Controls & waste management.

Green Landscaping with trees & Plants surround the institute campus with regular additions.

Plastic cups are replaced with paper cups & initiative has been taken by JIT management for disposal of plastic wastes through Nashik Munciple Corporation.

JIT office is paperless as ERP system is fully functional in JIT Campus. E wastes are not generated in the campus & may be negligible.

Pedestrian friendly roads already exist in the campus & are maintained in good condition.



Average percentage expenditure on green initiatives & waste management excluding salary component during the last five years is given below-

Average percentage expenditure on Green initiatives & waste management excluding Salary Component during last Five years ( INR in Lakhs.)

Year	Salary	Total expenditure	Total Expenditure Ex. Salary	Expenditure on Green initiative & waste management Ex.Salary	% age
2018-19		725.13	273.85	8.44	3.08
2019-20		535.06	178.68	3.59	2.00
2020-21		474.60	158.80	2.65	1.67
2021-22		402.30	150.87	2.39	1.58
2022-23		529.63	186.53	3.16	1.69
2023-24		439.35	139.01	0.41	0.3
<b>Total</b>		<b>3106.07</b>	<b>1087.74</b>	<b>20.64</b>	<b>1.89</b>

Comments—

Average percentage expenditure on green initiatives & waste management excluding salary component during last six years is 1.89 % as indicated in above Table & is found satisfactory considering other expenses.

We recommend more investment on Green Initiatives & waste management in future as under-

- Invest more in Rain water harvesting system as adequate roof area is already available in the premises.
- Commission solar power plant at earliest possible.
- Replace all existing lights with LED energy efficient lights to reduce Co2 emissions.
- Plantation of trees in the campus to be continued.
- Investment in Electrical vehicles recommended in near future.
- Solid waste disposable to be organized more efficiently.
- Air quality monitoring was carried out in the campus & was found Good.
- Noise Level monitoring was Carried out in the campus & noise pollution was found within reasonable limits.



## Recommendations—

1. Improvements in present solid waste management is recommended
2. Improvements in present liquid waste management is recommended.
3. Ambient air monitoring to be carried out on regular basis & records to be maintained,
4. Potential for rain water harvesting exists to be taken up after building construction is completed.
5. All existing lights to be replaced with LED.
6. Canteen wastes disposal to be looked into.
7. Concrete system for disposal of plastic wastes to be developed & implemented.
8. Land scaping & addition of trees to be done on continuous basis.
9. Electrical/Solar vehicles to replace present transport in future.
10. Zero discharge to be aimed in future. A well equipped Lab to be made & records to be maintained.
11. Annual expenditure on Green initiatives & waste management to be increased on regular basis.
12. Bicycles to be used for internal transport within college campus.
13. Water recycling & reuse to be initiated.
14. Optimize your power supply Contract demand
15. Use Energy efficient Fans.
16. Switch over to LT Power Supply.
17. Drinking water from RO a regular quality checks must be carried out in accredited Lab & records maintained.

### ***Best Ways for Your College to Go Green***

- *Energy supply. ...*
- *Using electronics instead of paper. ...*
- *Opening a refectory with a local eco food. ...*
- *Having a place for refilling a water bottle. ...*
- *Special campaigns for students. ...*
- *Transportation. ...*
- *Good old recycling. ...*
- *Creating eco-friendly rules in a campus.*





**Save Energy will be the motto of every day's working in each institute. Every institute will purchase only energy star compliant computers and equipment's. If energy star is unavailable, purchase the most energy-efficient model available in the market.**



**Institute will make all the necessary efforts to involve the students, faculty and staff in “Green Campus Initiatives” by designating the volunteers, printing T- shirts/ Caps with green campus initiative slogan specially designed for the purpose.**

**Thank You-**

**MM Consultancy Services, Nashik.**



# PHOTO—GALLERY



. AMBIENT AIR QUALITY MONITORING



NOISE LEVEL MONITORING





**RO UNIT FOR DRINKING WATER**



**GREENERY MAINTAINED AT JIT NASHIK**



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# ENERGY AUDIT REPORT

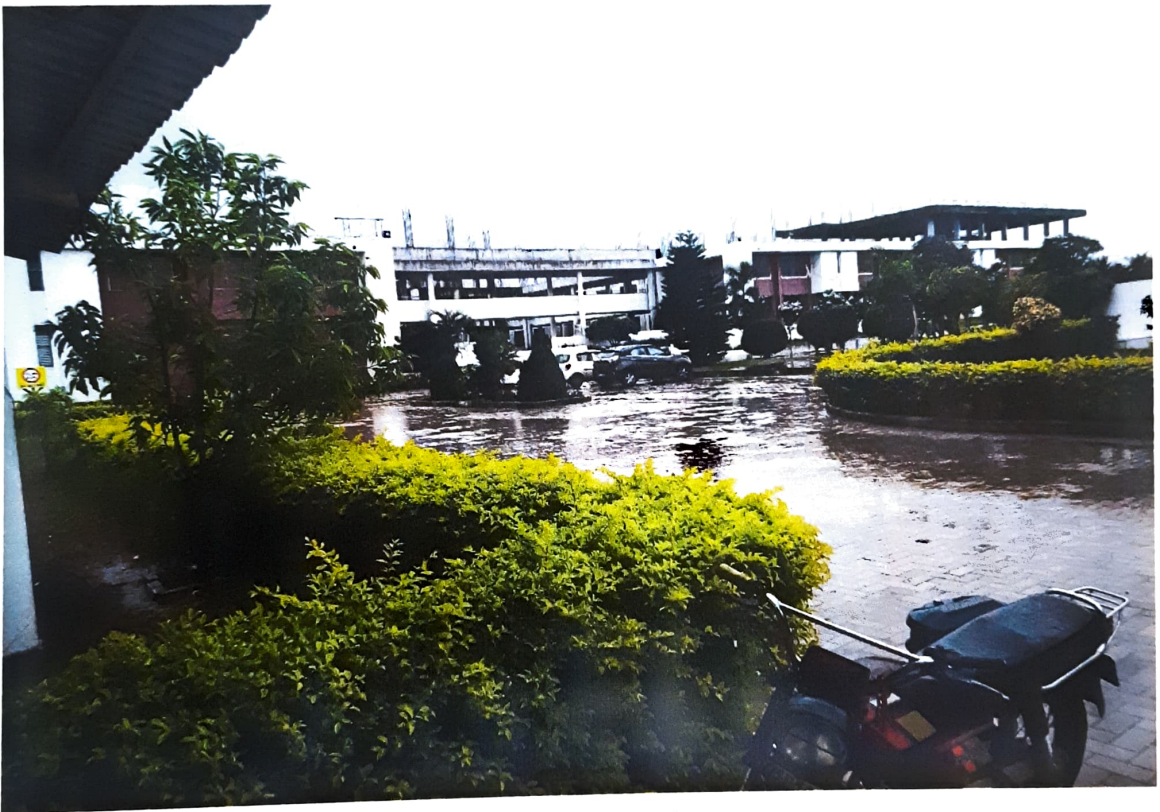
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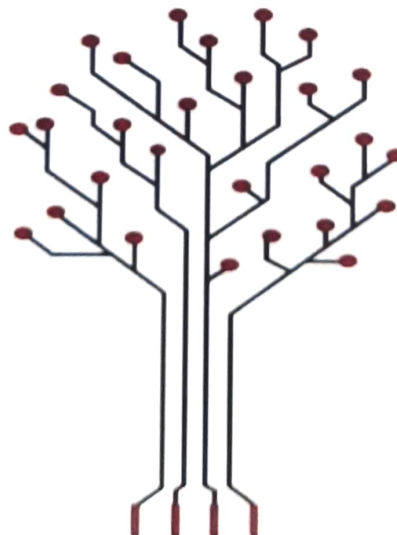
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- **To undertake collaborative environment friendly projects to bring Environment Consciousness.**
- 
- **To implement the advanced technology to benefit the society.**

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**Dr. M. V. Bhatkar**

**Ph. D. (IIT Bombay)**



## Energy Consumption Details—

Period—July 2023 to June 2024.

Energy Consumption Units	Energy Cost Rs.	Unit Rate Rs./Unit	Approx. Lighting Consumption Units
68645	1601594	23.33	31750

### July 2023 to June 2024 -- Power Requirement met by Renewable Sources

1	LED lights Installed Nos.	Watts	April to Nov.22 Consumption Units Kwh	Remarks
	415	20	8.3	Installed
	13	200	2.6	24450 Units per year
2	Roof Top Solar Power Unit	Kw	Annual Power Generation Kwh	Installation in Progress
	1 No	15 Kw	21000	To be commissioned in Dec-2024
<b>Total</b>			45450	Units

### July 2023 to June 2024 Power Utilization --

Power requirements proposed to be met by renewable energy sources—21000 Kwh. Total Power requirement—68645 Kwh

Renewable power utilization— $21000/68645 \times 100 = 30.59 \%$ .

Lighting power requirement met through LED Bulbs—24450 Kwh. Total Annual lighting power requirement—31750 Kwh.

Lighting power utilization through LED Bulbs— $24450/31750 \times 100 = 77 \%$ .



## JIT ELECTRICITY BILL ANALYSIS FOR THE YEAR 2023/24

Month	Units KVAH	Amount Rs.	AD-KVA	BD KVA	Diff	Rate Rs/KVA	Extra Paid	PF
Jul-23	5293	121157	17	84	67	499	33433	0.992
Aug-23	4579	111712	19	84	65	499	32435	0.98
Sep-23	5082	120017	22	84	62	499	30938	0.99
Oct-23	5841	130588	28	84	56	499	27944	0.993
Nov-23	5197	122908	22	84	62	499	30938	0.995
Dec-23	6254	137591	22	84	62	499	30938	0.993
Jan-24	5757	130051	18	84	66	499	32934	0.991
Feb-24	5529	127386	54	84	30	499	14970	0.991
Mar-24	5694	129378	19	84	65	499	32435	0.997
Apr-24	6315	153657	29	90	61	549	33489	0.991
May-24	6510	156639	30	90	60	549	32940	0.992
Jun-24	6594	160510	26	90	64	549	35136	0.977
<b>Total</b>	<b>68645</b>	<b>1601594</b>					<b>368530</b>	
<b>Power factor Maintained</b>								<b>GOOD</b>
<b>Average Billing Rate</b>						<b>Rs/Kvah</b>		<b>23.33</b>
<b>Extra payment made due to low Actual Demand (AD)</b>						<b>Rs</b>		<b>368530</b>
<b>Extra Billing Rate due to Actual low Demand</b>						<b>Rs/Kvah</b>		<b>5.37</b>

### Comments—

- Average rate of electricity purchased from GRID is estimated @ Rs.23.33 per Kvah which is on higher side mainly due to Addl. demand charges of Rs. 368530/- charged as shown in above Table.
- Contract demand should be reduced to 50 Kva to avoid above penalty.
- Power factor has been maintained well & is appreciated.
- Energy charges in Bill have been charged @ industrial tariff while electricity duty in the bill is charged as per commercial Tariff which should be looked into.
- Solar power unit should be commissioned at earliest possible to effectively reduce contract demand as well as to avail state Govt. subsidy as applicable. Solar capacity is recommended to be enhanced to 30 Kw in future to increase share of renewable energy usage.
- Replace maximum numbers of existing lighting with energy efficient LED lighting to save energy & also to reduce CO<sub>2</sub> emissions.





# How using LED lights can help you save money

Although the upfront cost of LED lights is slightly higher, their energy efficiency and durability compensate for it.

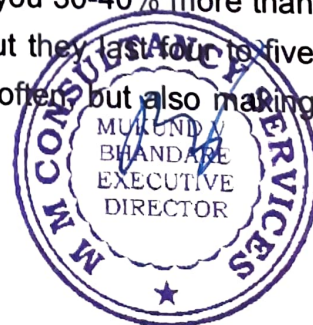


Traditional lights and CFLs need to be replaced more frequently than LED lights, which are designed to function for years.

Although indoor lighting is an essential, most of us do not pay much attention to the costs associated with them, perhaps because it's not a big-ticket expense. However, it is not just the upfront cost of buying a tube light or bulb that you must take into account. Other costs like replacement and power consumption also need to be considered carefully before making a decision. Since electricity consumption forms the bulk of the running cost of light fixtures, an energy efficient option like LED lights can help you save a good deal of money in the long run.

"With an estimated energy efficiency of 80-90% compared to conventional light bulbs, LEDs significantly reduce energy consumption, and thus help save money by lowering electricity bills," says Rakesh Zutshi, MD, Halonix Technologies and President of Electric Lamp and Components Manufacturers Association of India. Gautam Seth, Joint MD, HPL Electric & Power agrees, adding "LED lights are much more eco-friendly, and are up to 80% more efficient than fluorescent and incandescent lights".

Although the upfront cost of LED lights is slightly higher, their energy efficiency and durability compensate for it. "The return on investment for installing LEDs is so much quicker because of their longevity and light emission per wattage," says Radeesh Shetty, Founder, The Purple Turtles, a decorative lighting company. LEDs may cost you 30-40% more than traditional lighting options, depending on the brand you choose, but they last four to five times longer. This not only saves you the effort of replacing them often, but also making them environmentally sustainable.



## Benefits of Roof Top Solar System.

- Rooftop solar is a great step toward combatting climate change
- Solar panels contribute to the “green economy”
- Solar power is incredibly efficient
- It can be installed quickly
- Solar energy requires minimal maintenance
- Solar panels have zero emissions.

What’s more, solar power operates silently and there is no need for costly transmission infrastructure.

So what are the advantages of rooftop solar panels vs. ground-mounted panels? While each has pros and cons, the benefits of rooftop solar power are hard to ignore.

### Homeowners Benefit from Rooftop Solar Panels

As one of the most affordable types of solar products on the market, it’s not surprising that rooftop panels represented over 72 percent of all power added in the United States in 2013. The systems are proven to enhance a property’s green credentials, and home resiliency. Solar panels can even add thousands of dollars to a home’s resale value.

Additional rooftop solar benefits include:

- **Infinitely Renewable** – The sun will always be there to provide us with light; therefore, you need not worry about this source of clean and free energy being lost.
- **Represent Quality of Life** – You can set a good example with solar systems, because they enhance real estate value and demonstrate environmental consciousness.
- **Work Year-Round** – When positioned at the proper angle, panels will work in the sun, rain, wind and snow.
- **Operate in All Areas** – There is a misconception that homes must be located in the south to use rooftop panels; they are proven to work in every state.

### How Much Would Rooftop Solar Benefit Your Home?

The biggest advantage of rooftop solar — or ground-mounted solar, for that matter — is lower electric bills.



## Energy Efficient Fans.

### Meet India's most energy-efficient motor

#### Why BLDC motor-powered Atomberg fans are the future

1. Super-Efficient: consumes only 28W of energy, almost 1/3rd of an induction motor
2. Runs 3 times longer on an inverter battery
3. Noiseless operation
4. Intelligent electronics & AtomSENSE algorithm
5. Smart Remote control
6. No heating: ensures longer motor life
7. Consistent output even with fluctuating input voltage

#### Here's why you need to replace your fans immediately

1. Extremely inefficient: Consumes 75-80W of energy with enormous heating losses
2. Humming noise
3. Failures in bearing and copper windings
4. Non-consistent output
5. Dependency on external capacitor and regulator: This results in associated losses and costs
6. Zero flexibility: in terms of design, material selection and size
7. No compatibility with IoT: plain mechanical devices
8. No scope for innovation

It is recommended to replace existing ceiling & wall mounted energy inefficient fans with energy efficient fans having BLDC Motor. Impact on energy savings by adapting to energy efficient fans is given below.

Atom berg Make modern energy efficient fans is highly recommended with remote control facility.

**Recommendations-** Replace minimum 65 Fans with Atomberg Energy efficient fans to reduce present energy consumption

$65 * 35 * 8 * 250 = 4550$  Units/Year

= Rs. 100100 per year.

Savings have been computed @ 35 watts per fan considering usage for 8 hours a day for 250 working days in a year.



## Recommendations.

1. Reduce Contract Demand from present 120 to 50 KVA to save demand Charges.
2. Install automatic occupancy sensors in office cabins to switch off lights, Fans & AC automatically when leaving the cabins.
3. Replace balance 40 % existing lighting with LED to get 50 % savings in lighting consumption . This will also reduce TOD Tariff charges as indicated in this report.
4. Use energy efficient fans in future.
5. Improve utilization of power from renewable Sources .
6. Switch off lights & fan when not in use. Install occupancy sensors for closed cabins/Rooms to save energy.
7. Carry out Transformer oil dielectric testing on regular basis.
8. Plan electrical/Solar vehicles for transport in future.
9. Switch over to LT supply as existing transformer losses are huge & can be avoided in future.
10. More expenses on energy conservation initiatives are recommended in future.
11. Use auto level cutoff switches on all overhead water tanks to switch off pumps when tank level is full which would also eliminate overflow of water from tanks.



**Thank you.**

**MM Consultancy Services, Nashik.**



Ref. : JES/ITMRN/2023-2024/6624

Date: 2-5/11/2023.

To,  
TECHNOSTER ENTERPRISES  
Shop no.2, near Sai Baba Temple,  
MIDS Satpur, NASHIK -422012

**Sub. : Purchase Order.**

Dear Sir,

With reference to the above subject, we would like to inform you that your quotation has been accepted and we are pleased to place our order for the following material. You are requested to deliver the material at Jawahar Education Society's, Institute of Technology & Management Research, Gangapur Road, Nashik.

Sr. No	Particulars	Qty	Rate	Total Amt. Rs.
1	Phillips Driver Flood Light 300 watt 2 years warranty	06 NO	5,251/-	31,506=00
				<b>Total Amt.Rs 31,506=00</b>
				<b>Net Payable Amt Rs. 31,506=00</b>
				<b>(Inclusive of all taxes &amp; duties)</b>

Note : Payment subject to quality satisfaction.

Terms & Conditions: As per quotation.

Thanking you,




(Dr. M.V. Bhatkar)  
Principal

## Tax Invoice

#	Item name	HSN/ SAC	Quantity	Unit	Price/ unit	GST	Amount
1	Phillips Driver Flood Light 300 watt 2 years warranty		6	Nos	₹ 4,450.00	₹ 4,806.00 (18.0%)	₹ 31,506.00
	Total		6			₹ 4,806.00	₹ 31,506.00

Invoice Amount In Words Thirty One Thousand Five Hundred and Six Rupees only				Amounts:			
				Sub Total			
				Total			
				Received			
				Balance			

Tax type	Taxable amount	Rate	Tax amount
SGST	₹ 26,700.00	9.0%	₹ 2,403.00
CGST	₹ 26,700.00	9.0%	₹ 2,403.00

Bank details: Bank Name: HDFC BANK, ASHOK NAGAR NASHIK Bank Account No.: 50200052427268 Bank IFSC code: HDFC0009220 Account Holder's Name: TECHNOSTER ENTERPRISES	For, TECHNOSTER ENTERPRISES   Authorized Signatory
---	--

**TECHNOSTER ENTERPRISES**  
Satpur, MIDC, Nashik  
GST NO.: 27AAQFT2963D1ZV;

AK  
Bun  
22/12/23

TEST REPORT

(To be submitted by Head of the Department/ Section Head)

To,  
The Principal,  
Institute of Technology, Management and Research, Nashik.

Respected Sir,

The materials / Items are received, thoroughly checked, and found perfect in working condition as per the specifications mentioned in the Purchase Order No. JES/ITR/23-24/3146 dated 03-01-2023 issued to M/S. Technoside Enterprises. The Tax invoice / Bill No. TE/23-24/75 dated 20-12-23 of Rs. 31,506.00/- (in words) Rs. Thirty one thousand five hundred six only.

The Tax-Invoice / Bill is therefore recommended to initiate the payment in full / parts. The above items/ material is recorded/entered in C.S.R. No. 1199 and department D.S.R. 04 on dated 22/12/2023.


Signature of HOD/ Section Head.....

Name: Mr. S. Y. Thorat Department: Electrical maintenance

To,  
The Registrar/Accountant,

The payments as per the purchase order, Test Report and recommendations by the Head of Department are approved for further processes. (Verify: the details as per Tax-Invoice / Bill/ purchase order)

Date.....

  
(Principal)

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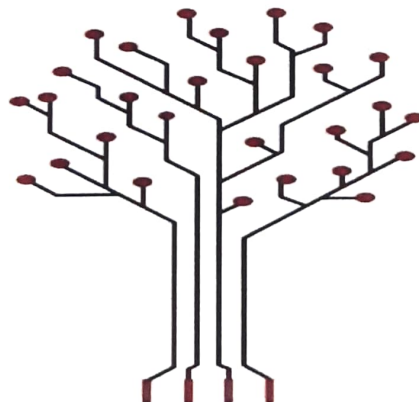
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## OBJECTIVE OF ENVIRONMENTAL AUDIT.

The intent of environmental audits is to protect the environment and reduce potential risks to human health. Thus, it is critical for institutions dealing with young scholars. However, auditing is not the exclusive solution to achieve the environmental goal. The management tool plays a substantial role. The prime reasons behind an environmental audit are –

1. Determine the effectiveness of the environmental management systems, equipment, and resources.
2. Review compliance with the existing laws and regulations related to companies and institutions.
3. Reduce human exposure to environmental risks, health threats, and safety hazards.

National Assessment and Accreditation Council, or NAAC, got introduced by the University Grants Commission, or UGC, in September 1994. It was established in Bangalore. NAAC evaluates the performance and operational quality at the universities and colleges in India.

- The NAAC accreditation is mandatory for all colleges in the country. The grade provided by NAAC is significant for state universities. Why? Because they necessitate the NAAC grade to operate and maintain their reputation. The NAAC accreditation assists a university to apply for UGC grants, RUSA grants, financial donations, etc.
- The NAAC accreditation checks and determines the performance and grade of the educational institution. The NAAC grade reflects the academic quality as well. It also focuses on the learning infrastructure, research opportunities, environmental aspects, etc.
- An environmental audit is critical for an academic institution. One needs it to determine and implement the best practices, as expected by the National Assessment and Accreditation. The audit reports show the best ways of natural resources and energy management. The reports reflect if the campus is wasting natural resources and adversely influencing the environment.

A commendable report from the environmental auditors ensures optimal environmental sustainability at the institution. It also covers other substantial environmental aspects that matter in an institution.

Based on the audit reports, academic institutes can implement the best strategies for environmental management. It is vital to make the campus suitable for students, teachers, and everyone associated. It also assists the college determine the wastage volume. One can consider various recycling techniques and projects. It facilitates the process of developing a sustainable ecosystem at the institution. One can minimize wastage and develop a suitable system for environmental management.

1. The goal of the audit is to promote the best practices for environmental sustainability.
2. It minimized the possibilities of potential health hazards and risks at the institution.



3. Ensure optimal compliance with the norms and standards in the environmental management system with the audit.
4. The audit promotes the ideal protocols to develop a sustainable ecosystem and risk-free ambiance.
5. With accurate audit reports and proactive consultations, the institutions can recognize industry-specific and cost-effective techniques for waste management.
6. It assists academic institutes to develop and encourage an enhanced learning ecosystem with optimal care toward environmental safety.
7. The audit reports help develop and promote a credible brand for the institution.

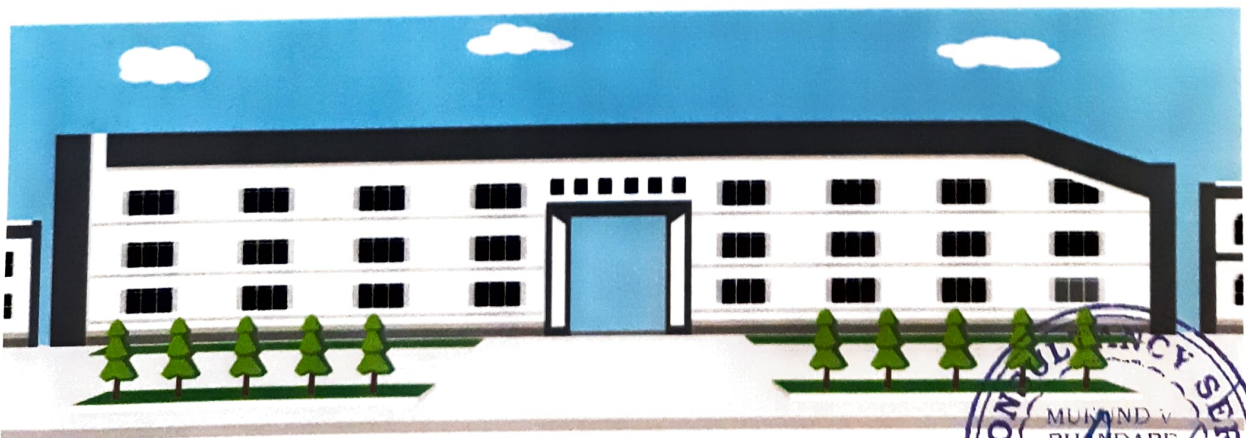
## SCOPE OF ENVIRONMENTAL AUDIT.

**Scope of this audit covers mainly following Areas of concern in the Campus.**

- Energy Management & Conservation
- Water Management & Conservation
- Total Waste management including solid waste, Liquid waste, e Waste, Paper waste etc
- Green Area Management.
- Air Quality Monitoring
- Noise Pollution Control.
- Transition in to E vehicles.

The purpose of an environmental audit is to: assess the nature and extent of the risk of harm to the environment as well as on human health from companies' operations. This may be from emission, wastes, use of resources or any other activities.

Green auditing is a vital process that ensures the diversity of plants on an organization's campus, reducing ecological pollution and soil destruction. It is beneficial intended for biodiversity protection, landscape management, irrigation/economic water utilization, and maintaining natural topography.



## ENERGY MANAGEMENT & CONSERVATION.

Primary source of energy used in the complex is electricity which is purchased from 11 KV HT Feeder.

Electricity Consumed during the year 2023-24 is 68645 Units which are billed @ Rs.23.33 Rs per Unit to total billing amount of Rs.1601594.

The rate of electricity billed is on higher side mainly due to excess amount paid for a billed demand. Actual demand is very less as compared to contract demand in fact 30 % only.

Lighting power utilization through LED lighting is 77 % which is appreciated.

There is a need to install solar power project of 30 Kw capacity for optimum renewable energy utilization. The campus has however initiated a 15 Kw solar power project which is likely to be commissioned by Dec-2024.

### Recommendations.

1. Reduce Contract Demand from present 120 to 50 KVA to save demand Charges.
2. Install automatic occupancy sensors in office cabins to switch off lights, Fans & AC automatically when leaving the cabins.
3. Replace balance 40 % existing lighting with LED to get 50 % savings in lighting consumption . This will also reduce TOD Tariff charges as indicated in this report.
4. Use energy efficient fans in future.
5. Improve utilization of power from renewable Sources .
6. Switch off lights & fan when not in use. Install occupancy sensors for closed cabins/Rooms to save energy.
7. Carry out Transformer oil dielectric testing on regular basis.
8. Plan electrical/Solar vehicles for transport in future.
9. Switch over to LT supply as existing transformer losses are huge & can be avoided in future.
10. More expenses on energy conservation initiatives are recommended in future.
11. Use auto level cutoff switches on all overhead water tanks to switch off pumps when tank level is full which would also eliminate overflow of water from tanks.



## WATER MANAGEMENT.

Water is purchased from a third party supplier through private bore well & is received in a underground tank from where it is pumped to 3 Nos above ground tanks from where it is supplied for potable, gardening & other uses.

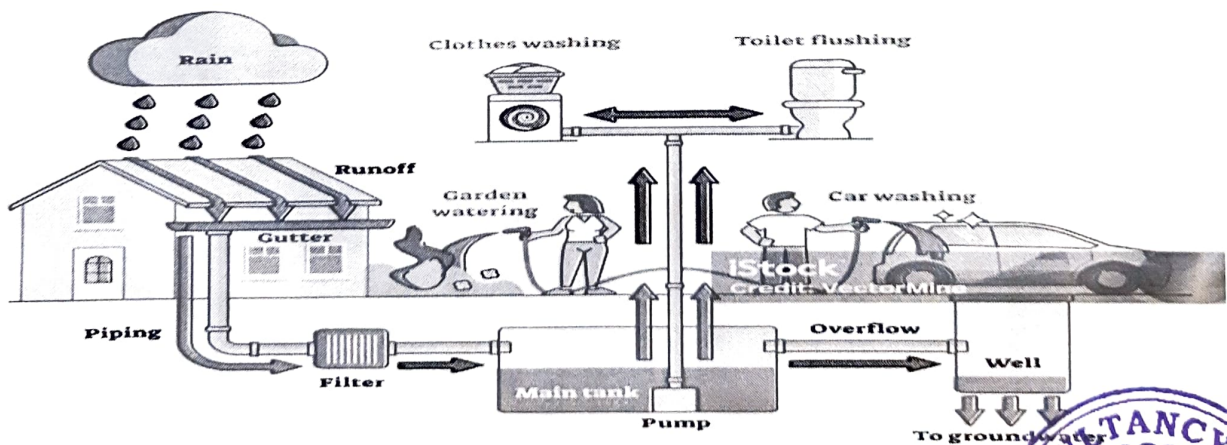
Average daily water consumption of the campus is about 3500 CUM per day. RO Units are provided each in college campus & Canteen.

Rain water harvesting system is feeding water for land charging which is collected from campus building Terrace each for old & new building.

### Recommendations-

- Recycle & Reuse of water should be encouraged through efficient rain harvesting system.
- Water quality management system should carry out monthly analysis of potable water sample to ensure & maintain potable quality of water.
- Automatic water level sensors should be installed on all the above ground water tanks to eliminate overflow of water.
- Water meters should be installed on all the above ground tanks outlets to monitor & control daily water consumption.
- Cleaning schedule should be prepared & maintained for cleaning of all the water storage tanks for ensuring health & hygiene of students.
- Proper AMC (Annual Maintenance contract) should be initiated for RO Units & records of maintenance if any should be maintained.

## RAINWATER HARVESTING



## WASTE MANAGEMENT & WASTE DISPOSAL.

### Present Scenario—

JIT building design provides adequate day light & ventilation for all rooms & corridors.

Building construction is still in progress & there is a provision for Rain water harvesting at present but more roof area will be available for rain harvesting after completion of Building in future.

JIT has already placed order for 15 Kw solar roof top system & have replaced 428 bulbs with LED. Solar plant is expected to be commissioned in Dec-2024.

Ambient air monitoring facility with monitoring system exists & is being used.

JIT is very keen to take initiatives for improving environment & is committed to spend for green initiatives & waste management in future.

Organic waste is being handled in Vermi- Composting Plant.

The waste water generated from Campus from Canteen & WC is being treated in soak pit.

Regular Tree Plantation program is in place—No. Of Big trees -460, No. Of small Trees—7862.

Regular work shops & training programs are being organised on regular basis in Campus for Environmental Controls & waste management.

Green Landscaping with trees & Plants surround the institute campus with regular additions.

Plastic cups are replaced with paper cups & initiative has been taken by JIT management for disposal of plastic wastes through Nashik Munciple Corporation.

JIT office is paperless as ERP system is fully functional in JIT Campus.

E wastes are not generated in the campus & may be negligible.

Pedestrian friendly roads already exist in the campus & are maintained in good condition.

### Recommendations—

- Capacity of present Vermi composting facility should be enhanced to take care of total organic wastes generated in the campus.
- Effluent waste water generated from Toilets & Labs etc can be recycled & reused in WTP & feasibility should be looked into.
- E Wastes should be stored for a limited time & needs to be disposed off with outside contractor on regular basis.



- Food wastes from canteen should be fed to a biogas plant & biogas generated should be reused in canteen.



**BIO GAS PLANT CONVERTING FOOD WASTES IN TO BIOGAS**





Average percentage expenditure on green initiatives & waste management excluding salary component during the last six years is given below-

Total Expenses excluding salary Rs in Lakhs—1087.74

Expenses incurred in green initiatives Rs in Lakhs—20.64

Comments—

Average percentage expenditure on green initiatives & waste management excluding salary component during last six years is 1.89 % as indicated in above Table & is found satisfactory considering other expenses.

We recommend more investment on Green Initiatives & waste management in future as under-

- Invest more in Rain water harvesting system as adequate roof area is already available in the premises.
- Commission solar power plant at earliest possible.
- Replace all existing lights with LED energy efficient lights to reduce Co2 emissions.
- Plantation of trees in the campus to be continued.
- Investment in Electrical vehicles recommended in near future.
- Solid waste disposable to be organized more efficiently.
- Air quality monitoring was carried out in the campus & was found Good.
- Noise Level monitoring was Carried out in the campus & noise pollution was found within reasonable limits.

**AIR QUALITY MONITORING--**

Air Quality monitoring was carried out in the campus at different locations & summary of results are tabulated as under--

Sr. No.	Parameter	UOM	Value	Remarks
1	PM 2.5	µg per cum	5.2	Within L
2	PM 10	µg per cum	8	Within L
3	CO	ppb	500	Within L
4	NO2	ppb	4	Within L
5	O3	ppb	6	Within L
6	SO2	ppb	2	Within L
7	Temperature	0C	23	Within L
8	Humidity	%	88	Within L



## Recommendations—

1. Improvements in present solid waste management is recommended
2. Improvements in present liquid waste management is recommended.
3. Ambient air monitoring to be carried out on regular basis & records to be maintained,
4. Potential for rain water harvesting exists to be taken up after building construction is completed.
5. All existing lights to be replaced with LED.
6. Canteen wastes disposal to be looked into.
7. Concrete system for disposal of plastic wastes to be developed & implemented.
8. Land scaping & addition of trees to be done on continuous basis.
9. Electrical/Solar vehicles to replace present transport in future.
10. Zero discharge to be aimed in future. A well equipped Lab to be made & records to be maintained.
11. Annual expenditure on Green initiatives & waste management to be increased on regular basis.
12. Bicycles to be used for internal transport within college campus.
13. Water recycling & reuse to be initiated.
14. Optimize your power supply Contract demand
15. Use Energy efficient Fans.
16. Switch over to LT Power Supply.
17. Drinking water from RO a regular quality checks must be carried out in accredited Lab & records maintained.
18. Noise level monitoring was carried out in the campus at different locations. Average Noise Level was measured @ 64 dB which is within limits.

### ***Best Ways for Your College to Go Green***

- *Energy supply. ...*
- *Using electronics instead of paper. ...*
- *Opening a refectory with a local eco food. ...*
- *Having a place for refilling a water bottle. ...*
- *Special campaigns for students. ...*
- *Transportation. ...*
- *Good old recycling. ...*
- *Creating eco-friendly rules in a campus.*



**Save Energy will be the motto of every day's working in each institute. Every institute will purchase only energy star compliant computers and equipment's. If energy star is unavailable, purchase the most energy-efficient model available in the market.**



**Institute will make all the necessary efforts to involve the students, faculty and staff in "Green Campus Initiatives" by designating the volunteers, printing T-shirts/ Caps with green campus initiative slogan specially designed for the purpose.**

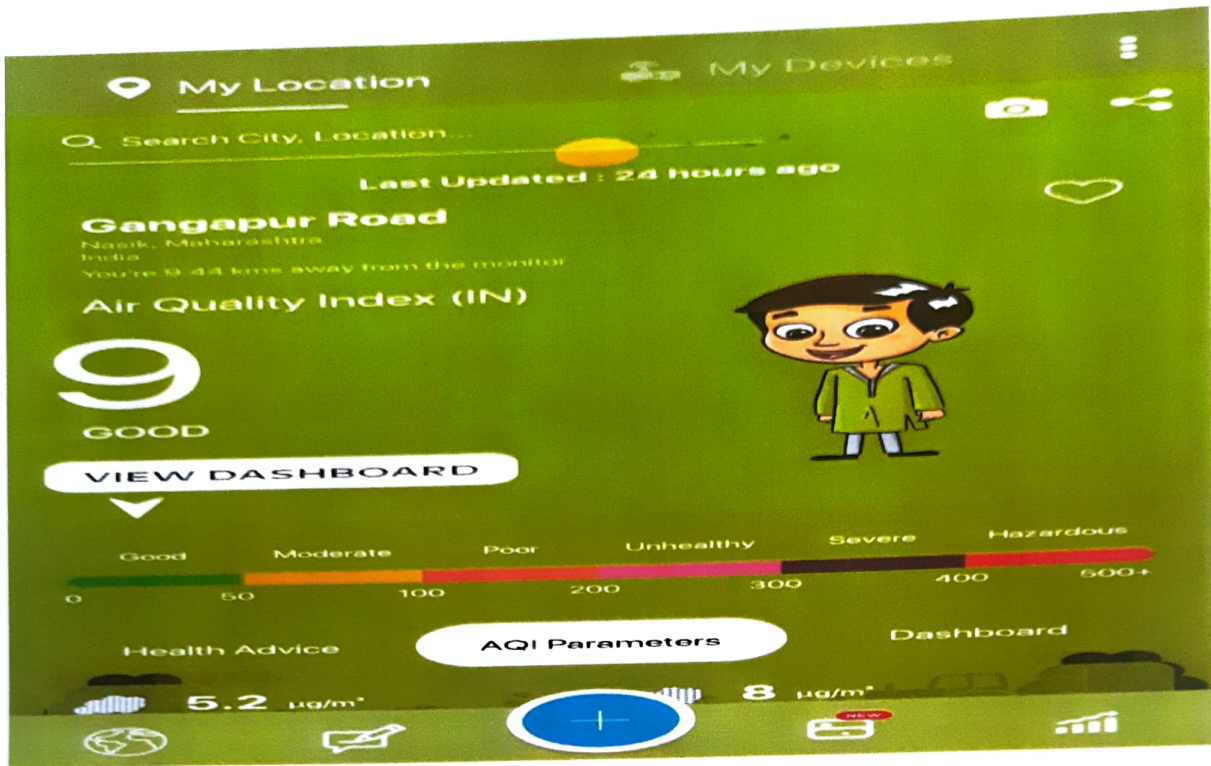
**Thank You-**

**MM Consultancy Services, Nashik.**

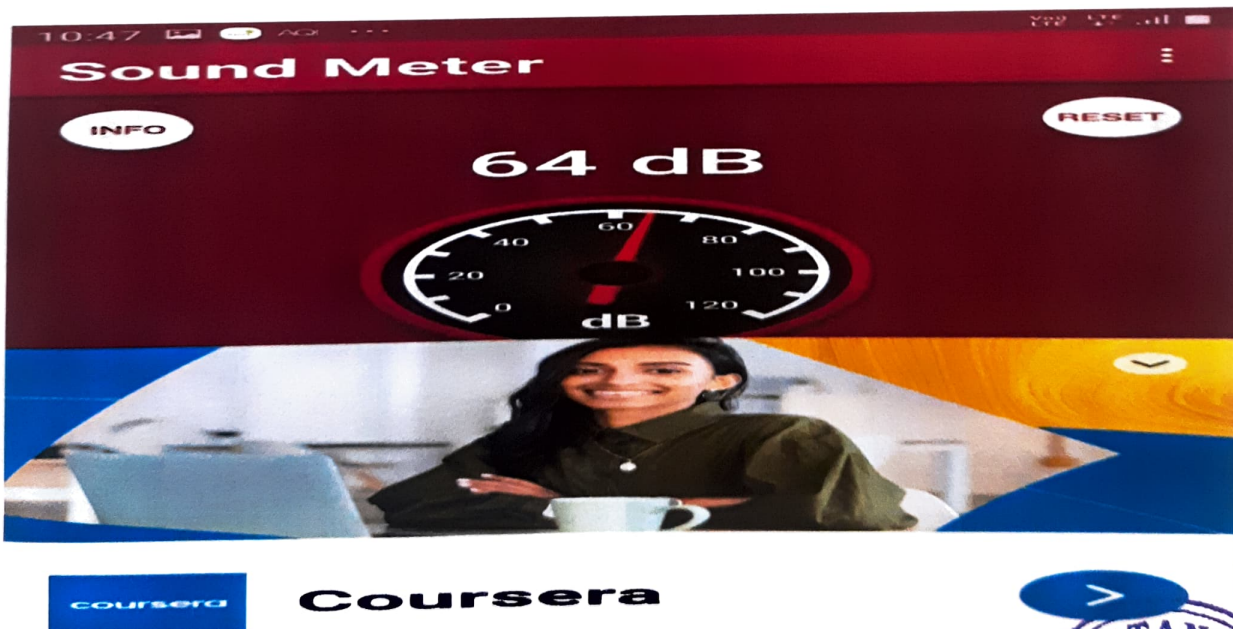


# PHOTO—GALLERY

## AMBIENT AIR QUALITY MONITORING



## NOISE LEVEL MONITORING.



XG





**SEWAGE COLLECTION SOAK PIT**

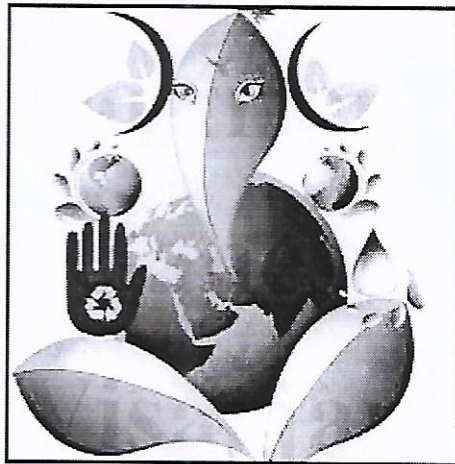


**GREENERY MAINTAINED IN JIT CAMPUS**



**DEPARTMENT OF CIVIL ENGINEERING**

**“Eco-friendly  
Ganesh  
Visarjan”**



**Date: - 25/09/2023**

**Venue: - Prati-Balaji Temple Area, Gangapur Road,  
Nashik.**

Date: - 23/09/2023

To,  
The Principal,  
Jawahar Education Society's,  
Institute of Technology, Management and Research,  
Nashik.

**Subject: - Permission regarding conduction of "Eco-friendly Ganesh Visarjan at Prati-Balaji Temple"**

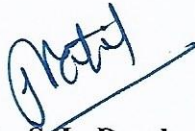
Respected Sir,

We are writing this letter to request permission to conduct "Eco-friendly Ganesh Visarjan" on 25<sup>th</sup> September 2023 at Prati-Balaji Temple, Gangapur Road, Nashik.

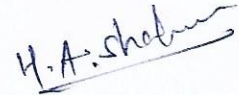
The objective of this program is to sensitize people about the issues of environment degradation which occur during Ganesh festival. Also to encourage people to opt environment friendly celebration of Ganesh festival.

We will be highly thankful to you, if you can allow this program.

Thanking You.



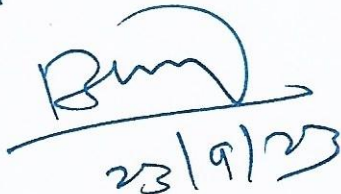
Mr. S. L. Desale  
Convener



Dr. H. A. Shahane  
Head

Head  
Department of Civil Engineering  
Institute of Technology, Management & Research,  
Nashik.

Good Initiative  
Pl. Proceed



Ref.: JES/ITMRN/Office/2023-24/ 6540

Date:- 25/09/2023

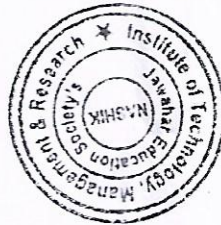
प्रति  
विभागीय अधिकारी  
नाशिक महानगरपालिका  
सातपूर विभाग.

विषय:- प्रदूषण मुक्त गणेश विसर्जन व मूर्ती संकलनाची परवानगी मिळण्या बाबत.

मा.महोदय,

वरील विषयानुसार आपणास विनंती करतो कि, आमच्या महाविद्यालया मार्फत व सामाजिक संस्था मिळून येत्या दिनांक २५/०९/२०२३ रोजी सातव्या दिवशी रोजी प्रदूषण मुक्त गणेश विसर्जन करिता प्रतीबालाजी गंगापूर नाशिक तसेच गोदावरी काठी आलेल्या गणेश विसर्जन मूर्तीचे गोदावरी नदी मध्ये न टाकता इच्छुक मंडळा कडून व व्यक्तिगत लोकांकडून गणेश मूर्ती आमच्या कडे संकलित करून त्यांचे सुव्यवस्थित प्रदूषण मुक्त गणेश विसर्जन करण्याची संकल्पना राबविण्यात येणार आहे.

तरी मा.महोदय वरील बाबी करिता व प्रदुषणाच्या समतोल राखण्यासाठी आमच्या महाविद्यालयातील कर्मचारी व विद्यार्थी यांना प्रतीबालाजी गंगापूर नाशिक तसेच गोदावरी काठेजवळ गणेश मूर्ती संकलन करण्याकरिता आपली परवानगी मिळावी. ही विनंती धन्यवाद.



डॉ. एम. व्ही. भटकर  
PRINCIPAL  
JAWAHAR EDUCATION SOCIETY'S  
INSTITUTE OF TECHNOLOGY, MANAGEMENT  
AND RESEARCH, NASHIK



Ref.: JES/ITM&N/Office/2023-24/6540

Date:- 25/09/2023

प्रति

मा.श्री.विलासजी शिंदे

महानगर पालिका गट नेते

नाशिक महानगरपालिका.

विषय:- प्रदूषण मुक्त गणेश विसर्जन व मूर्ती संकलनाची परवानगी मिळण्या बाबत.

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JAWAHAR EDUCATION SOCIETY'S  
INSTITUTE OF TECHNOLOGY, MANAGEMENT  
AND RESEARCH, NASHIK

**Department of Civil Engineering**

**Notice**

**Date: - 23/09/2023**

All the students are hereby informed that department has organized "Eco-friendly Ganesh Visarjan at Prati-Balaji Temple" on 25<sup>th</sup> September 2023 at Prati-Balaji Temple, Gangapur Road, Nashik.

The objective of this program is to sensitize people about the issues of environment degradation which occur during Ganesh festival. Also to encourage people to opt environment friendly celebration of Ganesh festival. All the students are invited to be a part of this program.

  
**Mr. S. L. Desale**  
**Convener**



  
**Dr. H. A. Shahane**  
**Head**  
**Head**  
**Department of Civil Engineering**  
Institute of Technology, Management & Research,  
Nashik.

**Department of Civil Engineering**

**“Eco-friendly Ganesh Visarjan”**

**Attendance (SE Civil)**

Sr. No.	Student Name	Signature
1	GAVANDE BHARADWAJ MADHUKAR	
2	WAGH SWAPNA POPAT	
3	CHAURE NANDINI HIRAMAN	
4	SHAIKH NIDA RIZWAN	
5	KARANJKAR ADITYA NITIN	
6	THETE POOJA KHANDU	
7	THETE SHITAL RAMESH	
8	TARTE GIRISH YOGESH	
9	DEORE CHETAN RAJENDRA	
10	DEORE GAURAV NAMDEO	
11	KALE VARUN MADHUKAR	
12	THAKUR VINAY BALMAL	
13	KHATAL SHRIKANT HIRAMAN	
14	SANSARE DURGESH BHARAT	
15	TALKHE SUNNY BHAGAWAN	
16	GAIKWAD GAURAV RAOSAHEB	
17	BALLAL VIKAS KISAN	

Mr. S. I. Desale  
Convener


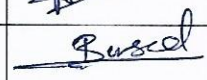
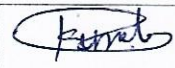
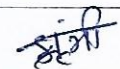
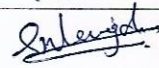

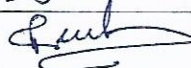
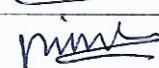
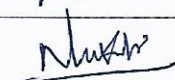
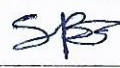

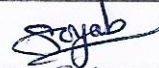
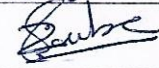
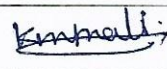
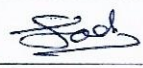
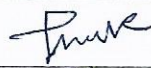
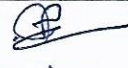
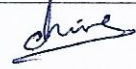
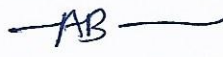
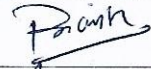
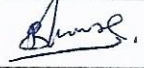


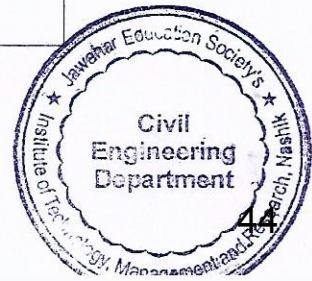
Dr. H. A. Shahane  
Head  
Department of Civil Engineering  
Institute of Technology, Management & Research,  
Nashik.

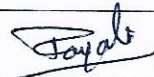

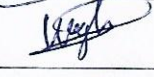

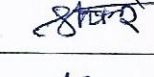
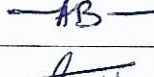
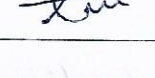
**Department of Civil Engineering**

**“Eco-friendly Ganesh Visarjan”**

**Attendance (BE Civil)**

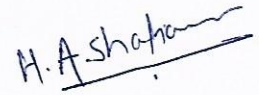
Sr. No.	Student Name	Signature
1	AMRUTKAR SANKET AVINASH	
2	BANSOD DIPESH NAMDEO	
3	BHASKAR KUNAL UMESH	
4	CHAVAN SAPTASHRUNGEE VIJAY	
5	GUNJAL SAMEER DILIP	
6	JOPALE DIPALI BHAURAO	
7	KAWAR RAHUL MANIRAM	
8	MARMIK SANJAY JAWARE	
9	NIKUMBH KUNJAN VIJAY	
10	PAGAR SHUBHAM RAVINDRA	
11	PAWAR SHAKUNTALA BABULAL	
12	SOYAB SALIM KOTWAL	
13	BHAMRE SHANTANU RAJENDRA	
14	MALI KANHAIYA BHARAT	
15	SAURABH SHRIRAM BACHHAV	
16	GULVE VISHAL NIVRUTTI	
17	SONAWANE PRATIK RAJARAM	
18	CHAUDHARI SUMIT PANDIT	
19	ROHIT DEVRAM MANWADE	
20	BHADANGE PRAVIN VIJAY	
21	BHAMARE DHANESH VIJAY	



22	TAMORE PAYAL ROHIDAS	
23	DEORE AKSHAY RAJENDRA	
24	WAGHPATIL AJINKYA RAMCHANDRA	
25	SALVE SHAILESH SHARAD	
26	KHARE SHUBHAM ISHWAR	
27	KHODE JATAN RAJENDRA	
28	GAVIT ROHIT AHOK	



**Mr. S. I. Desale**  
Convener



**Dr. H. A. Shahane**  
Head

**Head**  
Department of Civil Engineering,  
Institute of Technology, Management & Research,  
Nashik.



## Report Eco-friendly Ganesh Visarjan

✦ <b>Day and Date</b>	:-	Monday, 23/09/2023
✦ <b>Name Event</b>	:-	“Eco-friendly Ganesh Visarjan at Prati-Balaji Temple”
✦ <b>Organized by</b>	:-	Department of Civil Engineering, Jawahar Education Society's, Institute of Technology, Management & Research, Nashik.
✦ <b>Coordinator</b>	:-	Mr. S. L. Desale, Assistant Professor, Civil Engineering Department.
✦ <b>Venue</b>	:-	Prati-Balaji Temple, Gangapur Road, Nashik.
✦ <b>Participants</b>	:-	All Students

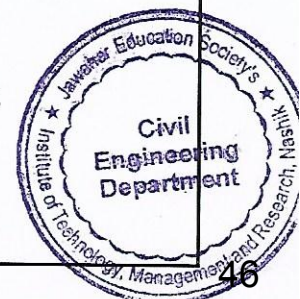
### ✦ **Objective of the Event:-**

The objective of this program is to sensitize people about the issues of environment degradation which occur during Ganesh festival. Also to encourage people to opt environment friendly celebration of Ganesh festival.

### ✦ **Outcome of the Event: -**

The outcomes of this program are as follows:

- It saves our water resources; the idols made up of harmful chemicals pollute water bodies.
- Whereas, idols made by soil and eco products are safe for the water bodies.
- It saves water-living organisms, the immersion of idols made of harmful chemicals destroy lives of aquatic organisms.
- It protects human health from unclean water.
- The fake jewellery, sparkles & most of the decorative items contains metals which are harmful for human health as well as water bodies.
- Whereas idols made in an eco-friendly way does not harm nature in anyway.



- It does not involve usage of plastics & thus, no further pollution to the water bodies. It is easy to make as there are so many alternatives to make eco-friendly Ganpati idol.
- **Event Photographs:-**



Photos of “Eco-friendly Ganesh Visarjan at Prati-Balaji Temple”





Photos of "Eco-friendly Ganesh Visarjan at Prati-Balaji Temple"

*S. L. Desale*

Mr. S. L. Desale  
Convener



*H. A. Shahane*

Dr. H. A. Shahane  
Head

**Head**  
Department of Civil Engineering  
Institute of Technology, Management & Research,  
Nashik.

BACK



रजि. नं.: एफ-१६८११/२००७

श्री राजमुद्रा फाउंडेशन

राजमुद्रा सांस्कृतिक कला क्रिडा मंडळ, नाशिक



प्रशस्तिपत्र

प्रमाणित करण्यात येते की,

जवाहर एज्युकेशन सोसायटी

इन्स्टिट्यूट ऑफ टेक्नोलॉजी मॅनेजमेंट अॅण्ड रिसर्च, नाशिक

यांनी राजमुद्रा सांस्कृतिक कला क्रिडा मंडळातर्फे दरवर्षी आयोजित करण्यात येणाऱ्या पर्यावरण पुरस्कार गणेशमुर्ती विसर्जन या उपक्रमांतर्गत आपण केलेल्या सहकार्याबद्दल

आपणांस हे प्रमाणपत्र प्रदान करण्यात येत आहे.

BACK

सागर चव्हाण  
उपाध्यक्ष

स्वप्निल पाटील  
संस्थापक अध्यक्ष