



## CRITERION VI

### GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### QUALITY AUDITS

1. ENERGY
2. ENVIRONMENT
3. GREEN
4. GENDER
5. FIRE

#### DATA VALIDATION & VERIFICATION

# DVV



KEY  
INDICATOR  
6.5

METRICS  
6.5.3

**GOVT. M.H. COLLEGE OF HOME SCIENCE  
AND SCIENCE FOR WOMEN, AUTONOMOUS  
JABALPUR (M.P.)**

# ENERGY AUDIT CERTIFICATE

This is to certify that Energy Audit has been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and an ISO 14001:2015 company and suggestions for improvements have been given. The Audit activity has been executed for beneficiary with following Details:-

**Govt. M. H. College of Home Science & Science for Women (Autonomous) Jabalpur  
Napier Town, Jabalpur, Madhya Pradesh**

No. EA257B

Date of Audit: 15/01/2024

Assessment Period: 2022-2024 Valid till: 14/01/2025



ENERGY AUDITOR "CLASS-A" No. EA-28  
SAUR ENGINEERS & CONSULTANTS PVT. LTD.  
Plot No. 106, D-8, Conch-1, Borivali (W),  
Mumbai - 400 081.

**Saur Engineers & Consultants Pvt. Ltd.**

Registration No: EA-28 MEDA/ECN/2023-24/Class-A/EA 28

Empanelled Energy Auditor-CLASS A, MEDA, Government of Maharashtra

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.



# ENVIRONMENT AUDIT CERTIFICATE

This is to certify that Environment Audit has been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and an ISO 14001:2015 company and suggestions for improvements have been given. The Audit activity has been executed for beneficiary with following Details:-

**Govt. M. H. College of Home Science & Science for Women (Autonomous) Jabalpur  
Napier Town, Jabalpur, Madhya Pradesh**

No. ENA257B

Date of Audit: 15/01/2024

Assessment Period: 2022-2024 Valid till: 14/01/2025



ENERGY AUDITOR CLASS-A No. EA-28  
SAUR ENGINEERS & CONSULTANTS PVT. LTD.  
Plot No. 108, D-8, Ganga-1, Borhadi (M),  
Mumbai - 400 081.

**Saur Engineers & Consultants Pvt. Ltd.**

Registration No: EA-28 MEDA/ECN/2023-24/Class-A/EA 28

Empanelled Energy Auditor-CLASS A, MEDA, Government of Maharashtra

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.

# GREEN AUDIT CERTIFICATE

This is to certify that Green Audit has been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and an ISO 14001:2015 company and suggestions for improvements have been given. The Audit activity has been executed for beneficiary with following Details:-

**Govt. M. H. College of Home Science & Science for Women (Autonomous) Jabalpur  
Napier Town, Jabalpur, Madhya Pradesh**

No. GA257B

Date of Audit: 15/01/2024

Assessment Period: 2022-2024 Valid till: 14/01/2025



ENERGY AUDITOR CLASS-A No. EA-28  
SAUR ENGINEERS & CONSULTANTS PVT. LTD.  
Plot No. 108, D-8, Ganga-1, Borhadi (M),  
Mumbai - 400 084.

**Saur Engineers & Consultants Pvt. Ltd.**

Registration No: EA-28 MEDA/ECN/2023-24/Class-A/EA 28

Empanelled Energy Auditor-CLASS A, MEDA, Government of Maharashtra

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.



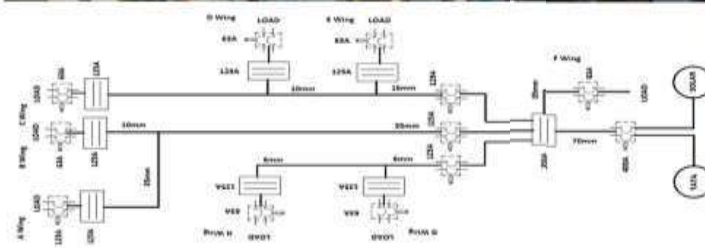
# SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.



- Liasoning
- Energy Audit
- Safety Audit
- Electrical Projects
- Solar Projects

Govt. M. H. College of Home Science & Science for Women (Autonomous) Jabalpur.



Report By

M/s. Saur Engineers & Consultants Pvt. Ltd., Mumbai.

- Registered Energy Auditor
- Power Consultant
- Channel Partner-MNRE, Govt. of India.
- Channel Partner-MEDA, Govt. of Maharashtra.
- Solar Grid Engineers, NISE, Govt. of India
- Licensed Electrical Contractor,





**SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

**Detailed Report**  
**Energy-Green-Environment Audit**

=====

**Audit Period**  
**2022-2024**

=====

Govt. M. H. College of Home Science & Science for Women Jabalpur

=====

Napier Town, Jabalpur  
Madhya Pradesh

=====

**Consultants & Auditor**

=====

**SAUR**  
**Engineers & Consultants**  
**Pvt. Ltd.**

REGISTRATION NO. : EA-28

=====

D-8, Plot No. 108, Akshay, Rsc-16,  
Gorai-1, Borivali (west), Mumbai-400092  
MAHARASHTRA  
+919867499812/+919168402909

=====



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### INDEX

No.	Topic	Page No.
A	Acknowledgement	04
B	Certificate	05
1	Introduction	06 – 10
2	Overview	11 – 16
	LOCATION	11
	SYNOPSIS	12
	LAYOUTS	13
	PREMISES	14
	DOCUMENTATION	16
3	Energy Audit	17 – 64
	CONSUMPTION ANALYSIS	17
	CONSUMPTION PATTERN	20
	EXPENSE PROJECTION	21
	LOAD PROFILE	22
	LOSSES	64
4	Green Audit	65 – 69
	FLORAL DIVERSITY	65
	FAUNAL DIVERSITY	66
	GREEN APPROACH	69
5	Environment Audit	70 – 73
	AIR QUALITY	70
	WATER QUALITY	70
	ATMOSPHERIC PROPERTY	71
	WASTAGE	71
	CARBON FOOTPRINT	73
6	Recommendation	74 – 77
	PART A	74
	PART B	75
	PART C	76
	PART D	77
7	Disclaimer	78
8	Conclusion	78



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **Acknowledgement**

Energy, Green and Environment Audits have been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and an ISO 14001:2015 company.

This activity is jointly executed by auditor and beneficiary to account Environmental diversities and development opportunity without sacrificing it's purpose. The main object was to assess the existing system for Environment concerns, High quality, professional and sustainable Environment management, Adopt best practices and Standard operating procedures.

Beneficiary premise is a leading educational service utility in semi-urban area. The college is run as per the norms and standards and having awareness and approach towards Environment saving. The management and staff are keen on saving greenery and energy on every opportunity available.

We sincerely acknowledge efforts of Management and staff members for smooth execution of audit process. We sincerely acknowledge the leaders and guides of the activity who helped to design and supported to the execution of the process

#### **The Team:-**

- Team Head- Dr. Girish Verma
- Principal- Dr. Nandita Sarkar
- Team Member, Teaching- Dr. Abha Tiwari
- Team Member, Teaching- Dr. Anuradha Dave
- Team Member, Non-Teaching- Shri Jagdish Sen
- Team Member, Non-Teaching- Neeraj Bawariya
- Team Member, Student- Rashika Sethi
- Team Member, Student- Anamika Haldkar
- Team Member, Student- Muskan Tantuway
- Team Member, Student- Nidhi Mishra
- Team Member, Electricity- Shri Ramesh Kumar Khare
- Team Member, Plumbing- Shri Mohan Yadav
- Team Member, Gardening- Shri Satya Narayan
- Team Member, Helper- Shri Santosh
- Team Member, External Expert: Shri Salil Shrivastava

**and all other technical, teaching, non-technical staff and students of college.**

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 4





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### Certificate

This is to certify that Energy, Green and Environment Audits have been successfully completed by M/s. Saur Engineers & Consultants Pvt. Ltd. Empanelled Energy Auditor(CLASS-A) MEDA, Government of Maharashtra and suggestions for improvements have been given. The Audit activity has been executed for beneficiary with following Details:-

**Name of Beneficiary:** Govt. M.H. College of H. Sc. & Sc. for Women (Auto), Jabalpur

**Registration Number:** 3303

**Address:** Napier Town, Jabalpur, Madhya Pradesh

**Contact Person:** Mr. Binay Singh

**Contact Number:** 07612407326

**Date of Audit:** 15/01/2024

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.



ENERGY AUDITOR "CLASS-A" No. EA-28  
SAUR ENGINEERS & CONSULTANTS PVT. LTD.  
Plot No. 108, D-8, Gomti-1, Borivali (W),  
Mumbai - 400 091.

**Sign & Seal**

**Saur Engineers & Consultants Pvt. Ltd.**

**Registration No: EA-28**

**Empanelled Energy Auditor-CLASS A,  
MEDA, Government of Maharashtra**



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **1. Introduction**

#### **1.1. Energy Audit**

Energy Audit is a Basic essential activity to be done for saving in electrical billing and also allied with any energy saving projects like renewable energy project and solar projects. Energy Audit is an assessment of usage, consumption and pattern of energy used in the premises based on all above parameters along with conditions and benchmarks as resource and Building Envelope Analysis, working, operational and Maintenance Procedure Analysis, Utility Data Analysis, Load Data Analysis, Analysis of Energy Consumption, Load Evaluation, consumption pattern and billing history, back-up systems and also the administrative requirements, assessment of safety concerns, assessment of operating and occupancy schedules for Equipment, Power Quality and Environmental Parameters Analysis, Efficiency and Wastage Analysis and assessment of potential risk factors.

Energy Audit is a process of systematic identification, quantification, recording, reporting and analysis of energy usage properties of institute. It aims to analyze within and surrounding the place concerned, which will see interrelation with eco-friendly atmosphere. Energy audit is a valuable means for an Institution related to educational area to determine how and where they are connected with Energy conservation drive of nation. Understanding these conditions the institution can make plans for day to day working, future expansions as well as an eco-friendly view of life while making changes and planning for savings. It provides better understanding of impact of energy consumption on working conditions to staff and visitors. As the Energy availability is becoming an increasingly important issue for the nation, the role of higher education institute is more vital and prevalent in relation with the issue.

The rapid urbanization and economic development at local, regional and global level has led to Energy availability and quality crisis. On this background it becomes essential to adopt the system of Energy efficient and safe Campus for the institution which leads for sustainable development and at the same time persisting the quality of the same while travelling on the growth path. Moreover, it is social responsibility of a High energy consuming institution to ensure that they contribute towards the saving of Energy and thus making it available who are destitute in term of energy availability.

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)**

**Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 6**



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **1.2. Green Audit**

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of natural diversity properties of institute. It aims to analyse within and surrounding the place concerned, in purview of relationship with natural diversity around. Green audit is a valuable means for an Institution related to educational area to determine how and what natural resources or diversity of nature they are surrounded with or they are living with. Green Audit report includes assessment of premises which refers to nature friendly environment with lesser carbon emission in terms of initiatives, implementation, best practices, working environment, capacity utilization based on all above parameters observed during green audit along with conditions and benchmarks as Air Quality, Water Quality, Noise Data, Weather Data, Tree Diversity, Faunal Diversity as well as biodiversity conditions. Understanding these conditions the institution can make plans for day to day working, future expansions as well as a nature-friendly view of life while making changes and planning for savings.

It can create consciousness and awareness about natural diversities around and helps to standardize practices for working with observation of nature friendly work style. It provides better understanding of green diversity available surrounding conditions to staff and students. As the vanishing diversity of nature is becoming an increasingly important issue for the nation as well as the world, the role of higher education institute is more vital and prevalent in relation with the issue.

The rapid urbanization and economic development at local, regional and global level has led to several greenery and ecological crisis. On this background it becomes essential to adopt the system of Green Campus for the institution which leads for sustainable development and at the same time persisting the quality of the same while travelling on the growth path. The National Assessment & Accreditation Council, New Delhi (NAAC) has made it mandatory to all Higher educational institutions should submit a Green Audit Report. Moreover, it is social responsibility of a Higher educational institution to ensure that they contribute towards the saving of Green areas and maintaining good levels of qualities for natural resources available such as Air, water, atmosphere, flora, faunal, Etc.

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)**

**Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 7**





## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **1.3. Environment Audit**

Environmental Audit is a process of systematic identification, quantification, recording, reporting and analysis of impact on components of environmental diversity properties of institute. It aims to analyse within and surrounding the place concerned, which will see interrelation with eco-friendly atmosphere. Environmental audit is a valuable means for an Institution related to educational area to determine how and where they are impacting on natural resources or diversity of nature. Environmental audit report includes assessment of premises which refers to impact on environment with carbon emission, wastages in terms of initiatives, implementation, best practices, working environment, capacity utilization based on all above parameters observed during Environmental audit along with conditions and benchmarks as Wastage types, recycling, Greenery, effect of impact, Carbon footprints as well as biodiversity conditions. Understanding these conditions the institution can make plans for day to day working, future expansions as well as an environment-friendly view of life while making changes and planning for savings.

It can create health consciousness, environmental awareness, practice green values and ethics. It provides better understanding of impact on surrounding conditions to staff and students. If self-enquiry is natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is natural and necessary outgrowth of a quality educational institution. Thus it is imperative that the institution evaluates its own contributions towards a sustainable future. As the pollution and  $CO_2$  is becoming an increasingly important issue for the nation, the role of higher education institute is more vital and prevalent in relation with the issue.

The rapid urbanization and economic development at local, regional and global level has led to several greenery and ecological crisis. On this background it becomes essential to adopt the system of Green Campus for the institution which leads for sustainable development and at the same time persisting the quality of the same while travelling on the growth path. The National Assessment & Accreditation Council, New Delhi (NAAC) has made it mandatory to all Higher educational institutions should submit a Environmental audit Report. Moreover, it is social responsibility of a Higher educational institution to ensure that they contribute towards the saving of environment and reduce level of quantity for impact on natural resources available.



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **1.4. Objective**

The Energy audit of an institution has becoming the paramount important for self-assessment of the Institution which reflects in the role of the institution in mitigation to current problem of reducing Energy availability and quality. The institution has been putting efforts to keep reducing and standardizing energy usage since its inception. Therefore the purpose of present Energy audit is to identification, quantification, recording, reporting and analysis of components of Energy utilization and electrical safety properties of institute framework of energy conservation in compliance with the applicable regulations, policies and standards. The main objectives to carrying out the energy audit are:-

- To have overview of premises
- To record and document Utility data
- To record and document Load profile data
- To record and document basic Electrical Safety observations data
- To record and document Energy Conservations (if any)

The green audit of an institution has becoming the paramount important for self-assessment of the Institution which reflects in the role of the institution in mitigation to current problem of reducing greenery and natural resources depletion. The institution has been putting efforts to keep clean and green atmosphere since its inception. Therefore the purpose of present green audit is to identification, quantification, recording, reporting and analysis of components of natural diversity properties of institute framework of Green atmosphere sustainability. The main objectives to carrying out the green audit are:-

- To record and document Air quality data
- To record and document Water quality data
- To record and document Weather/Meteorology data
- To record and document Noise Level data
- To record and document Tree Diversity data
- To record and document Faunal diversity data

The Environmental audit of an institution has becoming the paramount important for self-assessment of the Institution which reflects in the role of the institution in mitigation to current problem of reducing greenery and natural resources depletion. The institution has been putting efforts to keep clean and green atmosphere since its inception. Therefore the purpose of present Environmental audit is to identification, quantification, recording, reporting and analysis of components of surrounding environmental properties of institute framework as a part of global environment sustainability. The main objectives to carrying out the Environmental audit are:-

- To record and document Wastage type and management
- To record and document Recycling Procedures
- To record and document Impact on environment
- To record and document Carbon footprints

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 9**



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **1.5. Methodology**

The purpose of Energy Audit of is to ensure that the practices followed in the campus are in accordance with the Energy Conservation Policy of the Country. The methodology includes: collection of data, physical inspection of the campus, observation and review of the documentation and data analysis.

The report is based on the documents obtained while on site, visual inspection and data collection carried out during the assessment period. All the measurements recorded on site are indicative loads and duties. All readings are collected for analysis and improvement planning. Cost estimates are indicative only as more detailed design and acceptance of suggestions will be required to improve the accuracy of these estimates.

The units are selected from SI (international standards) with meters, Celsius degrees, Etc.

### **1.6. Audit Statement**

The building is adopting the “Energy Efficient Campus” system for Energy conservation and sustainability. There are main three pillars i.e. Energy saving by technology and Operation & Maintenance procedures, safe working on occupational health and performance and 100% inmates demonstrating energy efficiency literacy. The goal is to maintain safe working environment, reduce energy consumption, while creating an atmosphere where inmates can work and live healthy.



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 2. OVERVIEW

#### 2.1. LOCATION



SL No	Head	Details	Remark
1	Name of Institute	Govt. M.H. College of H. Sc. & Sc. for Women (Auto), Jabalpur	
2	Category	Women’s College	Educational Institute
3	Address	Napier Town, Jabalpur	
4	State	Madhya Pradesh	
5	Nearest Railway Station	Madan Mahal	Outstation
			Local
6	Nearest Bus Station	ISBT (Deen dayal Chouk, Vijay Nagar, Jabalpur)	Interstate
			Inter state
7	Nearest Airport	Dumna Airport	
8	Longitude	79.92721	
9	Latitude	23.161078	



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 2.2. Synopsis

SLNo	Head	Details
1	Name of Applicant Institution	Govt. M.H. College of H. Sc. & Sc. for Women (Auto), Jabalpur
3	Address	Napier Town, Jabalpur, Madhya Pradesh
4	Contact Number	076124 07326
5	Registration Certificate Number	3303
6	Sector Type	Government
7	Senior Management Contact	Principal : Dr. Nandita Sarkar
8	Contact Number	9893087424
9	Status of Institution (Pvt./Public)	Government
10	Company Turnover (Rs. In Lakhs)	-
11	Number of Employees	170 (Teaching +Non-teaching)
12	Approximate Floor Area (ft2)	177991.92
13	Year of Establishment	1954
14	Plot Area (ft2)	462171.6
15	Constructed Area (ft2)	177991.92
16	Greenery Area (ft2)	71438.4
17	Roof Area (ft2)	177991.92
18	No of Buildings	27
19	Building Type	Teaching & Research
20	Age of Building	70 years approx.
21	Leakages/Cracks on wall/roof	Cracks on some wall (Under Repair)
22	No. of workers (Footfall)	10
23	No. of Customers (Footfall)	10
24	Day Vs Night activity in %	95 %
25	Shifts per day	One Shift
26	Hours per shift	8 Hours
27	DG Set installed	01
28	Inverter Installed	08
29	Renewable Energy System installed	Yes
30	(Solar/Wind/Biomass/Biofuel/Etc.)	Solar Panels





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 2.3. Layouts





## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **2.4. About Premises**

Govt. M. H. College of Home Science & Science for Women (Autonomous) Jabalpur is a NAAC (B+) Graded. The college has also adopted the 'Green Campus' system for environmental conservation and sustainability. There are main three pillars i.e. zero environmental foot print, positive impact on occupant health and performance and 100% graduates demonstrating environmental literacy. The goal is to reduce CO2 emission, energy and water use. while creating an atmosphere where students can learn and be healthy. The 'Green Campus' has been active since years both as an assembly group of sub committees that actively promote the various projects. The college administration works on the several facets of \*Green Campus' including Water Conservation. Tree Plantation. Waste Management. Paperless Work. Alternative Energy and Mapping of Biodiversity.

Infrastructure (Class rooms, Library, Laboratories, Computer rooms, Gyms, Recreation rooms, seminar halls, Etc. Two Photos each and 2-4 lines description about facility and utilization) (PLEASE NOTE THAT THIS PART WILL REMAIN COMMON HENCE PROVIDE DETAILS LASTING FOR TWO YEARS; IF ANY CHANGES MADE IN TWO YEARS THEN MENTION SUCH CHANGE For Example if team member left the college then make two lists for first year and second year, if any changes in infrastructure then mention with photos)

The college curriculum is designed keeping in mind the vision and mission of the institution. It provides flexibility at UG and PG levels offering various course combinations which is supported by experienced teaching faculty, conducive environment of the institution and strong physical and academic infrastructure. It has adequate physical infrastructural facilities with sufficient classrooms laboratories, seminar halls, auditorium, library, Reading rooms, E-library, playgrounds, food court, gym, parking area and hostels to support the academic activity in the campus.

The Institution has state-of-the-art infrastructure and facilities in accordance with the need of the teaching and learning of existing courses and implementation of NEP 2020.

The facilities that promote a good teaching-learning ambience are:

- 10.75 acre (land)
- 4 Hostel blocks, accommodating—about 700 Students
- 2 Ramps and 2- Lifts
- Round the clock security provided
- ICT enabled 8 Seminar Halls with ICT and LED Display Digital Boards
- ERP System, Server room, etc.
- Well lit & ventilated 49 class rooms
- 24 Laboratories
- Autonomous examination cell equipped with web enabled integrated software & online power backup system.
- 5 computer Labs
- 208 systems with printers and scanners to facilitate teaching and learning.
- 620 Mbps broadband connectivity
- 1 Generator with a total capacity of 25 KVA.
- 3 Cottages
- Sports complex for indoor and outdoor games, such as basketball, badminton court & Volley.
- ball ground, gymnasium, Sports ground with pavilion, Gym.

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) **9168402909/9867499812/9821116443**.....Page | 14



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

- Gandhi Kuti
- Swami Vivekananda Statue
- Mahatma Gandhi Statue
- Museum (Zoology)
- Archive
- 4 Well maintained garden (Medicinal Plants)
- Telephone booth for hostel students, Pure drinking water facility one on each floor. Public address system & CCTV camera and Canteen
- Stationary Shop
- Juice corner
- Crèche
- 3 Cyclestands
- Common rooms
- Green Room
- Counseling Center
- Bungalows-Principal-1, Warden-3, non-teaching staff-2
- A Recording studio that supplements the needs of the faculty for thee-content development.
- A herbal garden
- Two blocks have ramps for differently-abled students and staff, with 2 lifts in the main block.
- 14 systems equipped with internet facility for free browsing facility to students in the e-Library.
- 12 departments are maintaining departmental PG/Research libraries. The main Library is situated in an area of 6348.24sq.ft
- 13 Class rooms with LCD projector.
- 1 Audio-Visual Hall (Auditorium) with projector.
- 1 Virtual Classroom.
- 3 Classroom with Lecture capturing system.

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)**

**Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 15**



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 2.5 Documentation:

ITEM	YES/NO
<b>a. Existing Statutory Layouts</b>	
i. Plot Map / Sketch	YES
ii. Building / Floor Map (For Each Floor)	YES
iii. Roof Terrace Map	YES
iv. Electrical SLD	NO
v. Details Electrical Control Panels	NO
vi. Details of Transformer installed if any	NO
vii. Details of Generator (DG-Set) installed if any	NO
viii. Details of UPS installed if any	NO
ix. Details of Renewable systems installed if any	YES
x. Utility Bills (Electricity, Gas, Water, Diesel, Etc.) for 12 months	YES
xi. Registers of Records	NO
xii. Time Tables	YES
xiii. Nameplate Data	NO
xiv. Manuals	NO
b. Existing safety measures (Fire extinguishers, Safety training and posters)	YES
c. Verification of circulars, Records of Preventive measurements	NO
d. Verification of Behavioural SOP	NO
e. Verification of O & M SOP	NO
f. Checking Provision for electric shock response and treatment	NO
g. Checking Log of Electrical works/accidents	NO
h. Checking Provision of Danger Sign Boards	YES
i. Checking Workmen involved in electric work	NO
j. Checking Provision and Height of work	YES
k. Checking availability of First Aid	YES

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 16



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 3. Energy Audit

#### 3.1. Electricity and Fuel Consumption Analysis

SL No.	Particulars	Unit	VALUES
1	Supply Type	LT/HT	HT
2	Utility Company	DISCOM	MPPKVCL
3	Consumer Number	NO	111262832000
4	Meter Number	NO	XG476948
5	Feeder	SOURCE	11KV WRIGHT TOWN
6	Tariff	TYPE	HV3.2A
7	Sanctioned Load	KW	0
8	Connected Load	KW	0
9	Contract Demand	KVA	175
10	RMD (Year)	KVA	75

PERIOD	2023		2022		DIFFERENCE	
	Consumption	Expenses	Consumption	Expenses	Consumption	Change
(NAME)	(KVAH)	(Rs)	(KVAH)	(Rs)	(KVAH)	(%)
January	17213	184096	12157	128083	5056	29.37
February	18238	190088	12750	128830	5488	30.09
March	15272	158773	11111	126310	4161	27.25
April	22709	233292	15715	185885	6994	30.80
May	22262	240644	18582	208820	3680	16.53
June	14609	164470	15027	182212	-418	-2.86
July	9683	125063	5016	97663	4667	48.20
August	15329	175855	8202	126096	7127	46.49
September	20461	218201	17622	209858	2839	13.88
October	27031	275939	10264	326543	16767	62.03
November	14116	162114			14116	100.00
December	21011	231293	15504	188337	5507	26.21

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 17

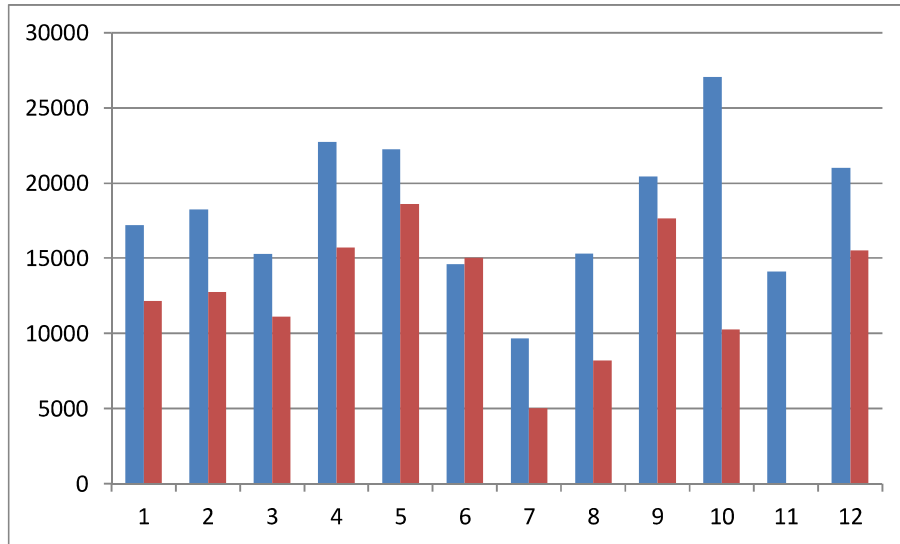




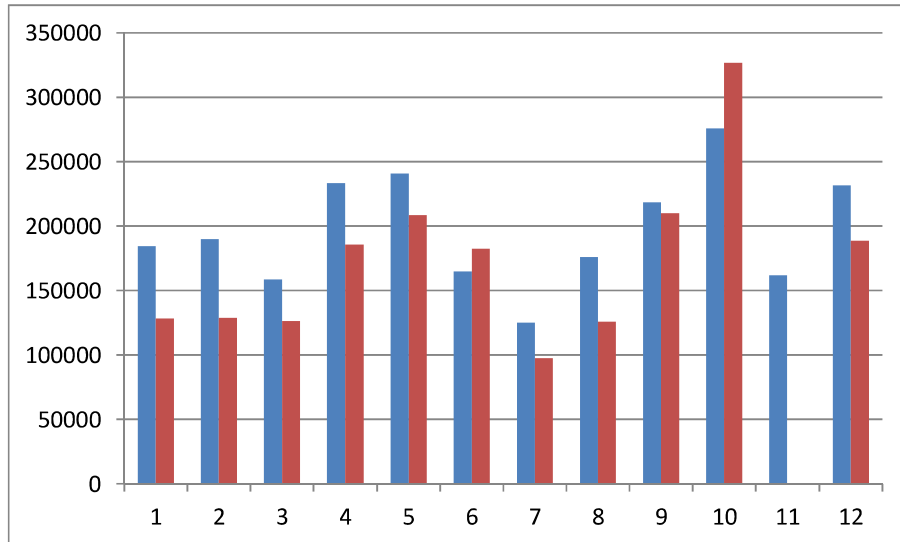
## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### CONSUMPTION:



### EXPENSES:



### Note:

1. Consumption is increased Drastcally at average of 35.67%
2. Recommended to confirm with increase in activity.
3. Recommended to perform Detailed Energy and Power Audit.



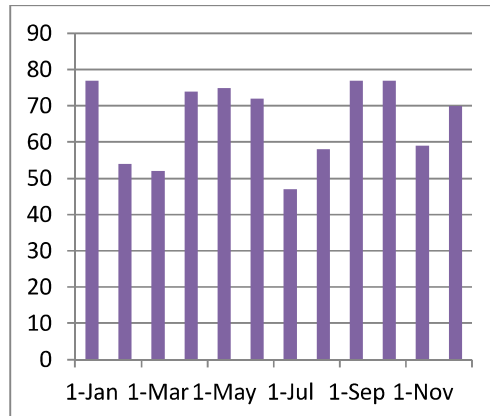
## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

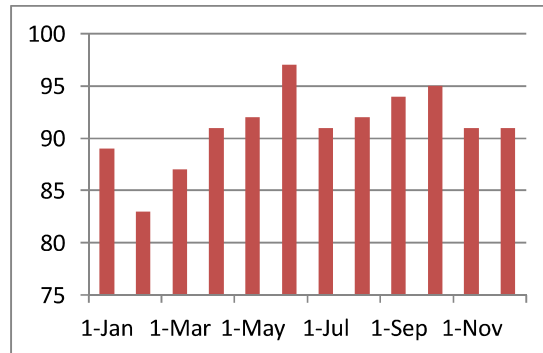
**Demand in Current year:**

Month (NAME)	RMD (KVA)	PF (%)
23-Jan	77	89
23-Feb	54	83
23-Mar	52	87
23-Apr	74	91
23-May	75	92
23-Jun	72	97
23-Jul	47	91
23-Aug	58	92
23-Sep	77	94
23-Oct	77	95
23-Nov	59	91
23-Dec	70	91

**RMD:**



**PF:**





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

Other Energy Sources					
SL No	Energy/Fuel	Applicable	Unit	Use per Annum	Cost Per Annum (Rs)
1	Coal		NA		
3	Lignite		NA		
4	Fuel wood & Biomass		NA		
5	High Speed Diesel		NA		
6	Light Diesel		NA		
7	LSHS		NA		
8	LPG		NA		
9	Natural Gas	<ul style="list-style-type: none"> <li>• PNG</li> <li>• LNG</li> <li>• CNG</li> </ul>	NA		
10	Renewable Power		NA		
11	Captive (DG Set)		NA		

### 3.2. Consumption pattern

UNITS			
HEAD	Usage (Kwh)	Payment (Rs)	Duration
<b>Total</b>	217934	2359828	Annual
<b>Min</b>	9683	125063	JULY
<b>Max</b>	27031	275939	OCT
<b>Average</b>	18161.17	196652.3	Annual

RMD		
HEAD	VALUE	DURATION
MIN	47	JUL
MAX	77	SEP

POWER FACTOR		
HEAD	VALUE	DURATION
MIN	83	FEB
MAX	97	JUL
AVG	91.1	ANNUAL



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 3.3. Future Expenses Projection on Electricity Bills for Next 20 Years

It is observed past 15 years that electricity rates are increasing with an average growth of 5% per annum. Following table will show how much amount we are going to spend on electricity next twenty years with this growth rate and same consumption.

SL No	Year	Unit Rate	Expenses
1	2023-2024	8.39	2488274
2	2024-2025	8.81	2579706
3	2025-2026	9.25	2675711
4	2026-2027	9.71	2776515
5	2027-2028	10.20	2882361
6	2028-2029	10.71	2993499
7	2029-2030	11.24	3110195
8	2030-2031	11.81	3232726
9	2031-2032	12.40	3361385
10	2032-2033	13.02	3496476
11	2033-2034	13.67	3638324
12	2034-2035	14.35	3787264
13	2035-2036	15.07	3943652
14	2036-2037	15.82	4107860
15	2037-2038	16.61	4280279
16	2038-2039	17.44	4461320
17	2039-2040	18.31	4651414
18	2040-2041	19.23	4851013
19	2041-2042	20.19	5060594
20	2042-2043	21.20	5280654

You are going to spend **Rs. 7,00,00,000/- (Rs. Seven Crores Only)** on electricity bills in coming 20 years; if we keep current consumption as it is.



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 3.4. Load Profile

#### 3.4.1. 2022-23 Load Establishment

BRIEF DESCRIPTION OF EACH UTILITY EXISTING SYSTEM-2022-23					
S.N.	LOCATION	FIXTURE	WATT	QTY	TOTAL
1	Hostel Block - C Office	Led Tube Light	20	3	60
		Fan	70	2	140
		BLDC Fan	30	4	120
		Computer	120	2	240
		Printer	150	2	300
		PC Machine	450	1	450
		18W CFL	18	3	54
		Led Bulb 9W	9	1	9
		FTL	46	2	92
		Led TV	100	1	100
		2	Passage	Led Tube Light	20
Led Bulb 9W	9			1	9
3	Ground Floor - Open Area	Led Tube light	20	1	20
		Led Bulb 9W	9	1	9
		Fan	70	1	70
4	Passage	Led Tube light	20	6	120
		Led Bulb 9W	9	10	90
5	Ground Floor Rooms	FTL	46	26	1196
		Fan	70	13	910
6	Wash Rooms	FTL	46	3	138
		Led Tube Light	20	3	60
		Exhaust	60	3	180
		Geyser	1500	3	4500
7	Halls	FTL	46	32	1472
		Fan	70	12	840
		Cooler	250	2	500
8	First Floor Rooms	FTL	46	38	1748
		Fan	70	19	1330
9	Wash Rooms	FTL	46	3	138
		Led Tube light	20	3	60
		Exhaust	60	3	180
		Geyser	1500	3	4500
10	Passage Area	Led Bulb 9W	9	10	90
		Led Tube Light	20	6	120
11	Second Floor Room	FTL	46	38	1748

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

saurengineers@gmail.com 9168402909/9867499812/9821116443.....Page | 22





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fan	70	15	1050
		BLDC Fan	30	4	120
		FTL	46	3	138
12	Wash Rooms	Led Tube Light	20	3	60
		Exhaust	60	3	180
		Geyser	1500	3	4500
13	Passage Area	Led Bulb 9W	9	10	90
		Led Tube Light	20	6	120
14	Submersible	Motor 10 HP	7500	1	7500
15	Hostel Block B - Kitchen	FTL	46	1	46
		Fan	70	1	70
		Led Tube Light	20	1	20
16	Dinning Hall - Ground Floor	FTL	46	9	414
		Fan	70	5	350
17	Ground Floor Rooms	FTL	46	24	1104
		Fan	70	24	1680
18	First Floor Rooms	FTL	46	27	1242
		Fan	70	27	1890
19	Second Floor Room	FTL	46	27	1242
		Fan	70	27	1890
20	Hostel Block A - Ground Floor Rooms	Led Tube Light	20	87	1740
		Fan	70	87	6090
21	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
22	First Floor Rooms	Led Tube Light	20	87	1740
		Fan	70	87	6090
23	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
24	Second Floor Rooms	Led Tube Light	20	78	1560
		Fan	70	78	5460
		Water Cooler	500	1	500
25	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
26	Dinning Hall	Old Fan	150	9	1350

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 23



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		BLDC Fan	30	4	120
		Led Bulb 9W	9	14	126
		Cooler	250	1	250
		Exhaust	60	2	120
		Fridge	250	1	250
		Fan	70	1	70
		Led TV	100	1	100
		Water Cooler	500	1	500
		Deep Freezer	650	2	1300
27	Roti Making Room	Led Tube Light	20	2	40
		Exhaust	60	1	60
28	Hostel Block D	Water Cooler	500	1	500
29	Ground Floor Room	Led Tube light	20	8	160
		Fan	70	8	560
30	Wash Room	FTL	46	1	46
		Led Tube light	20	1	20
		Geyser	1500	1	1500
31	Passage	Led Bulb 9W	9	10	90
32	First Floor Room	Led Tube Light	20	10	200
		Fan	70	10	700
33	Wash Room	FTL	46	1	46
		Led Tube light	20	1	20
		Geyser	1500	1	1500
34	Passage	Led Bulb 9W	9	12	108
35	Second Floor Room	Led Tube Light	20	10	200
		Fan	70	10	700
36	Passage	Led Bulb 9W	9	12	108
37	Wash Room	FTL	46	1	46
		Led Tube Light	20	1	20
		Geyser	1500	1	1500
38	Submersible	Motor 7.5 HP	5625	1	5625
39	Dept. Of Human Development	Cooler	250	1	250
		Fan	70	8	560
		FTL	46	4	184
		Led Tube light	20	5	100
		Projector	250	1	250
40	Dept. of Resource Management	Led Tube light	20	13	260
		Fan	70	8	560
		Printer	150	2	300
		Computer	120	2	240

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 24



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fridge	250	1	250
		PC Machine	450	1	450
		Cooler	250	1	250
41	warden House	Fan	70	2	140
		Led Tube Light	20	4	80
		Cooler	250	1	250
		Led Tv	100	1	100
		Fridge	250	1	250
42	Principal Bunglow	Cooler	250	2	500
		Motor HP	750	1	750
		Led Tube Light	20	6	120
		Fan	70	6	420
		Fridge	250	1	250
		Led Tv	100	1	100
43	Panel Room Near Transformers	FTL	46	8	368
		Fan	70	4	280
		Cooler	250	2	500
		Exhaust	60	1	60
44	Canteen Area - STD	Fridge	250	1	250
		Fan	70	1	70
		Led Bulb 9W	9	1	9
45	Canteen	Led Tube Light	20	12	240
		Fan	70	9	630
		Hot Case	1500	1	1500
		Deep Freezer	650	2	1300
		Fridge	250	1	250
		Exhaust	60	2	120
		Mixer	150	1	150
		Microwave	1500	1	1500
		Induction	2000	2	4000
46	Shops	Lep Tube Light	20	2	40
		Fridge	250	1	250
		PC Machine	450	1	450
		Fan	70	2	140
<b>Ground Floor</b>					
47	College Building office	Led Bulb 15W	15	7	105
		Fan	70	5	350
		Led Tube Light	20	5	100
		Old Fan	150	5	750
		Computer	120	3	360

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 25



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Printer	150	3	450
		PC Machine	450	2	900
		FTL	46	9	414
		Exhaust	60	2	120
		Cooler	250	2	500
48	Principal Chamber	Led Tube Light	20	10	200
		AC 1.ST	1857	1	1857
		Fan	70	5	350
		Led TV	100	2	200
		Computer	120	1	120
		Cooler	250	1	250
49	Passage Area	Led Bulb 15W	15	6	90
50	Server Room	AC 1.ST	1857	1	1857
		Fan	70	1	70
		CFL18WX2 Nos.	44	4	176
		Led Tube light	20	1	20
		Printer	150	1	150
		Computer	120	2	240
51	library	FTL	46	40	1840
		Fan	70	4	280
		Old Fan	150	12	1800
		Computer	120	6	720
		Printer	150	2	300
		PC Machine	450	1	450
52	Open Area	lift Machine	3750	1	3750
		Water Cooler	500	1	500
53	Reading Room	Old Fan	150	4	600
		FTL	46	20	920
54	Auditorium Hall	FTL	46	82	3772
		Led Tube light	20	14	280
		Old Fan	150	14	2100
I		Fan	70	5	350
55	Passage	Led Bulb 15W	15	7	105
56	Chemistry Lab 1	Old Fan	150	5	750
		Fan	70	1	70
		FTL	46	54	2484
		Exhaust	60	3	180
		Led Tube Light	20	3	60
		Hot Air Oven	1500	1	1500

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 26



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Centrifuge	120	1	120
57	Chemsitry HOD Room	Old Fan	150	1	150
		FTL	46	2	92
		Microwave	1500	1	1500
		Cooler	250	1	250
58	Staff Room	FTL	46	2	92
		Fan	70	1	70
		Computer	120	1	120
		Printer	150	1	150
59	Chemistry Lab 2	Old Fan	150	4	600
		Led Tube Light	20	6	120
		Led Bulb 9W	9	2	18
		Exhaust	60	2	120
		Hot Air Oven	1500	1	1500
60	Instrumentat ion Lab	FTL	46	6	276
		Fan	70	1	70
		Exhaust	60	1	60
61	Store	Led Tube Light	20	6	120
		Fan	70	2	140
		Old Fan	150	1	150
62	Biochemistry Lab	Led Tube Light	20	6	120
		Old Fan	150	5	750
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		FTL	46	1	46
		Fan	70	2	140
		Exhaust	60	2	120
		Computer	120	2	240
		Printer	150	1	150
63	Chemistry Lab 3	Led Tube Light	20	7	140
		Fan	70	5	350
64	Dept of Biochemistry & Chemsitry Staff	Led Tube Light	20	6	120
		Old Fan	150	1	150
		Fridge	250	1	250
65	Passage	Led Bulb 9W	9	5	45
66	Room No. 113 Smart Class-1	Led Tube Light	20	28	560
		Interactive Board	250	1	250
		Old Fan	150	6	900

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 27





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fan	70	1	70
67	Chemistry Research Lab	Led Tube Light	20	4	80
		Old Fan	150	1	150
		Fan	70	1	70
		Digital Calorimeter	200	1	200
		Hot Air Oven	1500	1	1500
		Centrifuge	120	1	120
68	Chemistry Lab 5	FTL	46	5	230
		Led Tube Light	20	4	80
		Old Fan	150	4	600
		Microwave	1500	1	1500
		Hot Air Oven	1500	1	1500
		Exhaust	60	2	120
69	Virtual Class	Fan	70	6	420
		FTL	46	6	276
		Led TV	100	1	100
70	Chemistry Instrumentation Lab	FTL	46	12	552
		Fan	70	4	280
		Fridge	250	2	500
71	Room	FTL	46	12	552
		Fan	70	4	280
	Outdoor	Motor 2HP	1500	1	1500
72	Room No. 130,131	FTL	46	14	644
		Fan	70	12	840
		Exhaust	60	4	240
73	Room No. 127,126	FTL	46	14	644
		Fan	70	12	840
		Exhaust	60	4	240
		Fridge	250	1	250
74	Room No. 128,129	FTL	46	1	46
		Fan	70	1	70
75	Quarter - College	FTL	46	4	184
		Fan	70	2	140
		Cooler	250	1	250
		Fridge	250	1	250
		Led TV	100	2	200
76	Cottage - 2Nos.	FTL	46	12	552
		Fan	70	6	420
		Geyser	1500	2	3000

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai - 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 28



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Cooler	250	2	500
		Fridge	250	2	500
		Computer	120	2	240
		Led TV	100	2	200
77	Seminar Hall - Ground Floor	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
78	Out door	Motor 2 HP	1500	1	1500
79	Generator Room	FTL	46	1	46
		Fan	70	1	70
80	Gymnasium Sports	Fan	70	2	140
		FTL	46	2	92
		Led Tube Light	20	2	40
81	Passage	Led Tube Light	20	9	180
82	Room No. 125 Nutrition Lab 1	Fan	70	6	420
		Led Tube Light	20	4	80
		FTL	46	5	230
		Exhaust	60	2	120
		Fridge	250	1	250
		Microwave	1500	5	7500
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		Cooler	250	1	250
83	CPE Room	Led Tube Light	20	1	20
		FTL	46	3	138
		Fan	70	3	210
		Printer	150	2	300
		Computer	120	2	240
		PC Machine	450	1	450
		Exhaust	60	1	60
		Projector	250	1	250
		Fridge	250	1	250
84	Room No. 118 Smart Class -2	Led Tube Light	20	18	360
		Old Fan	150	7	1050
		Printer	150	1	150
85	CPE	FTL	46	2	92
		Fan	70	2	140
86	Chemistry Lab -4	Old Fan	150	5	750
		Led Tube Light	20	6	120
		Exhaust	60	2	120
		Incubator	1500	1	1500

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 29



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Hot Air Oven	1500	1	1500
87	Room 121A	Projector	250	1	250
		FTL	46	2	92
		Fan	70	1	70
<b>First Floor</b>					
88	First Floor - Room No. 230 to 232	FTL	46	36	1656
		Fan	70	12	840
89	Clothing and Textile Department	Led Tube Light	20	17	340
		Fan	70	12	840
		Old Fan	150	13	1950
		Hot Air Oven	1500	1	1500
		FTL	46	8	368
		Fridge	250	1	250
		PC Machine	450	1	450
		Computer	120	1	120
		Printer	150	1	150
90	Passage Area	Led Bulb 9W	9	5	45
91	Room No. 218	Old Fan	150	4	600
		Fan	70	1	70
		FTL	46	4	184
92	Room No. 221 Smart Class -3	Led Tube Light	20	6	120
		Old Fan	150	7	1050
		FTL	46	16	736
		Projector	250	1	250
93	Dept of Maths	Fan	70	8	560
		Led Tube Light	20	18	360
		FTL	46	9	414
		Cooler	250	2	500
		Exhaust	60	2	120
		Wall Fan	60	7	420
		Computer	120	2	240
		Printer	150	2	300
94	Class Room MSC	FTL	46	4	184
		Fan	70	4	280
		Projector	250	1	250
95	MSC I& II	FTL	46	2	92
		Fan	70	2	140
96	Passage	FTL	46	5	230
97	Wash Room	FTL	46	2	92

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 30**



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Exhaust	60	1	60
98	Open Area	Water Cooler	500	1	500
99	Class Rooms	Fan	70	36	2520
		FTL	46	60	2760
100	Lift Area	Lift Machine	3750	1	3750
101	Room 228 & 227	FTL	46	12	552
		Fan	70	18	1260
102	Sports Room	FTL	46	12	552
		Led Tube Light	20	2	40
		Projector	250	1	250
		70W SV Lamp	90	10	900
		Exhaust	60	2	120
		Wall Fan	60	5	300
		Fan	70	1	70
		Computer	120	1	120
		Printer	150	1	150
103	Room No. 215	Fan	70	2	140
		FTL	46	4	184
104	Passage	Led Bulb 15W	15	4	60
105	Physics Lab-2	Old Fan	150	5	750
		Fan	70	3	210
		FTL	46	8	368
106	Physics Lab-3	FTL	46	8	368
		Led Tube Light	20	1	20
		Old Fan	150	9	1350
		Fan	70	3	210
		60W Bulb	60	1	60
		Spectrophotometer	180	3	540
107	Physics Lab-4	FTL	46	8	368
		Led Tube Light	20	1	20
		Old Fan	150	9	1350
		Fan	70	3	210
		60W Bulb	60	1	60
		Spectrophotometer	180	3	540
108	Room 210 - Physics Lab	FTL	46	6	276
		Wall Fan	60	7	420
		Computer	120	1	120
		Printer	150	1	150

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 31



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Water Cooler	500	1	500
108	Room No.209 Dept of Physics	FTL	46	4	184
		Old Fan	150	2	300
		Computer	120	1	120
		Printer	150	1	150
109	Physics Lab -1	Old Fan	150	6	900
		FTL	46	8	368
		Fan	70	3	210
110	Examination Cell	FTL	46	22	1012
		Fan	70	10	700
		Wall Fan	60	2	120
		Old Fan	150	3	450
		Computer	120	7	840
		Printer	150	3	450
		Cooler	250	1	250
		Led Tube Light	20	2	40
		PC Machine	450	5	2250
		AC IT	1300	2	2600
111	Conference Room	AC 1.5T	1857	2	3714
		Interactive Board	250	1	250
		FTL	46	8	368
		Fan	70	4	280
112	Room No.204,Computer Lab UGC	Cooler	250	4	1000
		Computer	120	25	3000
		Old Fan	150	4	600
		Fan	70	1	70
		Led Tube Light	20	5	100
		Projector	250	1	250
113	Room No. 205	Computer	120	42	5040
		Printer	150	6	900
		Old Fan	150	6	900
		Fan	70	5	350
		AC 1.5T	1857	2	3714
		Led Tube Light	20	26	520
114	Room No.203,202,201	Old Fan	150	12	1800
		Fan	70	3	210
		Computer	120	6	720
		Printer	150	3	450

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- I, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 32



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Led Tube Light	20	30	600
		Interactive Board	250	3	750
115	Passage	Led Bulb 9W	9	5	45
116	Common Room	Fan	70	3	210
		FTL	46	4	184
117	Seminar Hall - First Floor	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
118	Toilet	FTL	46	2	92
		Exhaust	60	1	60
<b>Second Floor</b>					
119	Second Floor - Common Room	FTL	46	3	138
		Fan	70	4	280
120	Room No. 301to 304	Led 2X2 Light	40	24	960
		Fan	70	16	1120
121	Room No. 305 and 306	Led 2X2 Light	40	12	480
		Fan	70	8	560
		Projector	250	2	500
122	Passage	Led Bulb 9W	9	16	144
123	Room No. 308 & 307 Computer Lab	Led 2X2 Light	40	11	440
		Fan	70	7	490
		Projector	250	1	250
		Computer	120	22	2640
		PC Machine	450	2	900
		Cooler	250	2	500
		AC .5T	1857	1	1857
124	Room No. 309 dept of Language	Led 2X2 Light	40	2	80
		Fan	70	2	140
125	Room No.310	Fan	70	8	560
		Led 2X2 Light	40	10	400
		Interactive Board	250	1	250
126	Room No.311Botany Lab	Fan	70	6	420
		Led 2X2 Light	40	8	320
		Wall Fan	60	2	120
127	Room No.312	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Wall Fan	60	2	120
128	Room No.313,314,315	Led 2X2 Light	40	18	720

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- I, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 33



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fan	70	12	840
129	Digital Zoology	Led Tube Light	20	7	140
		Fan	70	6	420
130	Microbiology Lab	FTL	46	11	506
		Fan	70	8	560
		Exhaust	60	2	120
		Laminar Air Flow	200	1	200
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		Fridge	250	2	500
		Computer	120	1	120
		Printer	150	1	150
131	Class Zoology	FTL	46	2	92
		Fan	70	4	280
		Incubator	1500	1	1500
		Hot Air Oven	1500	1	1500
		Fridge	250	1	250
		Exhaust	60	1	60
132	Biotechnology Lab	Fan	70	12	840
		FTL	46	12	552
		Incubator	1500	2	3000
		Hot Air Oven	1500	2	3000
		Fridge	250	1	250
		Exhaust	60	2	120
		Cooler	250	1	250
133	Botany & Microbiology Lab	Fan	70	3	210
		FTL	46	3	138
		Fridge	250	1	250
		Laminar Air Flow	200	1	200
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
134	Microbiology Lab-2	Fan	70	7	490
		FTL	46	3	138
		Cooler	250	1	250
		Incubator	1500	1	1500
		Distillation Plant	300	1	300
135	Class Room 331	Fan	70	9	630
		FTL	46	6	276

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 34





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

136	Lab-2	FTL	46	8	368
		Fan	70	12	840
		Incubator	1500	1	1500
		Hot Air Oven	1500	1	1500
		Centrifuge	120	1	120
137	Room No.317 Zoology & Biochemistry	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Computer	120	2	240
		PC Machine	450	1	450
		Printer	150	1	150
		Fridge	250	1	250
138	Room No.318	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Wall Fan	60	1	60
		Computer	120	1	120
		Printer	150	1	150
		Microwave	1500	1	1500
		Fridge	250	1	250
139	Botany Lab-2	Led 2X2 light	40	6	240
		Fan	70	4	280
		Wall Fan	60	1	60
140	Museum	Fan	70	1	70
		FTL	46	1	46
141	Room No. 333	Fan	70	6	420
		FTL	46	9	414
142	Room No.334	Fan	70	4	280
		FTL	46	12	552
143	Room No.335	Fan	70	4	280
		FTL	46	12	552
144	Seminar Hall	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
145	New Building Opposite Chemistry Dept	Led 2X2 light	40	33	1320
		Fan	70	36	2520
146	Out door	Led Street Light	30	36	1080
147	New Building Opposite Physics Lab	Led Tube light	40	24	360
		Fan 12	50	12	600

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)**

**Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 35**



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

148	New Building Opposite Conference Room	Led Tube light	40	12	480
		Fan 12	50	12	600
		<b>Total</b>		<b>3724</b>	<b>362629</b>

### 3.4.2. 2023 -24 Load Establishment

BRIEF DESCRIPTION OF EACH UTILITY EXISTING SYSTEM-2023-24					
S.N.	LOCATION	FIXTURE	WATT	QTY	TOTAL
1	Hostel Block - C Office	Led Tube Light	20	3	60
		Fan	70	6	420
		Computer	120	2	240
		Printer	150	2	300
		PC Machine	450	1	450
		18W CFL	18	3	54
		Led Bulb 9W	9	1	9
		FTL	46	2	92
2	Passage	Led TV	100	1	100
		Led Tube Light	20	1	20
3	Ground Floor - Open Area	Led Bulb 9W	9	1	9
		Led Tube light	20	1	20
4	Passage	Led Bulb 9W	9	1	9
		Led Tube light	20	6	120
		Led Bulb 9W	9	10	90
5	Ground Floor Rooms	FTL	46	26	1196
		Fan	70	13	910
		Led Tube Light	20	3	60
6	Wash Rooms	Exhaust	60	3	180
		Geyser	1500	3	4500
		FTL	46	3	138
		Led Tube Light	20	3	60
7	Halls	Exhaust	60	3	180
		Geyser	1500	3	4500
		FTL	46	32	1472
8	First Floor Rooms	Fan	70	12	840
		Cooler	250	2	500
		FTL	46	38	1748
9	Wash Rooms	Fan	70	19	1330
		Led Tube light	20	3	60
		Exhaust	60	3	180
		Geyser	1500	3	4500
10	Passage Area	Led Bulb 9W	9	10	90

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

saurengineers@gmail.com 9168402909/9867499812/9821116443.....Page | 36



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Led Tube Light	20	6	120
11	Second Floor Room	FTL	46	38	1748
		Fan	70	19	1330
		FTL	46	3	138
12	Wash Rooms	Led Tube Light	20	3	60
		Exhaust	60	3	180
		Geyser	1500	3	4500
13	Passage Area	Led Bulb 9W	9	10	90
		Led Tube Light	20	6	120
14	Submersible	Motor 10 HP	7500	1	7500
15	Hostel Block B - Kitchen	FTL	46	1	46
		Fan	70	1	70
		Led Tube Light	20	1	20
16	Dinning Hall - Ground Floor	FTL	46	9	414
		Fan	70	5	350
17	Ground Floor Rooms	FTL	46	24	1104
		Fan	70	24	1680
18	First Floor Rooms	FTL	46	27	1242
		Fan	70	27	1890
19	Second Floor Room	FTL	46	27	1242
		Fan	70	27	1890
20	Hostel Block A - Ground Floor Rooms	Led Tube Light	20	87	1740
		Fan	70	87	6090
21	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
22	First Floor Rooms	Led Tube Light	20	87	1740
		Fan	70	87	6090
23	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
24	Second Floor Rooms	Led Tube Light	20	78	1560
		Fan	70	78	5460
		Water Cooler	500	1	500
25	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 37



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

26	Dinning Hall	Old Fan	150	13	1950
		Led Bulb 9W	9	14	126
		Cooler	250	1	250
		Exhaust	60	2	120
		Fridge	250	1	250
		Fan	70	1	70
		Led TV	100	1	100
		Water Cooler	500	1	500
		Deep Freezer	650	2	1300
27	Roti Making Room	Led Tube Light	20	2	40
		Exhaust	60	1	60
28	Hostel Block D	Water Cooler	500	1	500
29	Ground Floor Room	Led Tube light	20	8	160
		Fan	70	8	560
30	Wash Room	FTL	46	1	46
		Led Tube light	20	1	20
		Geyser	1500	1	1500
31	Passage	Led Bulb 9W	9	10	90
32	First Floor Room	Led Tube Light	20	10	200
		Fan	70	10	700
33	Wash Room	FTL	46	1	46
		Led Tube light	20	1	20
		Geyser	1500	1	1500
34	Passage	Led Bulb 9W	9	12	108
35	Second Floor Room	Led Tube Light	20	10	200
		Fan	70	10	700
36	Passage	Led Bulb 9W	9	12	108
37	Wash Room	FTL	46	1	46
		Led Tube Light	20	1	20
		Geyser	1500	1	1500
38	Submersible	Motor 7.5 HP	5625	1	5625
39	Dept. Of Human Development	Cooler	250	1	250
		Fan	70	8	560
		FTL	46	4	184
		Led Tube light	20	5	100
		Projector	250	1	250
40	Dept. of Resource Management	Led Tube light	20	13	260
		Fan	70	8	560
		Printer	150	2	300
		Computer	120	2	240

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 38



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fridge	250	1	250
		PC Machine	450	1	450
		Cooler	250	1	250
41	warden House	Fan	70	2	140
		Led Tube Light	20	4	80
		Cooler	250	1	250
		Led Tv	100	1	100
		Fridge	250	1	250
42	Principal Bungalow	Cooler	250	2	500
		Motor HP	750	1	750
		Led Tube Light	20	6	120
		Fan	70	6	420
		Fridge	250	1	250
		Led Tv	100	1	100
43	Panel Room Near Transformers	FTL	46	8	368
		Fan	70	4	280
		Cooler	250	2	500
		Exhaust	60	1	60
44	Canteen Area - STD	Fridge	250	1	250
		Fan	70	1	70
		Led Bulb 9W	9	1	9
45	Canteen	Led Tube Light	20	12	240
		Fan	70	9	630
		Hot Case	1500	1	1500
		Deep Freezer	650	2	1300
		Fridge	250	1	250
		Exhaust	60	2	120
		Mixer	150	1	150
		Microwave	1500	1	1500
		Induction	2000	2	4000
46	Shops	Lep Tube Light	20	2	40
		Fridge	250	1	250
		PC Machine	450	1	450
		Fan	70	2	140
<b>Ground Floor</b>					
47	College Building office	Led Bulb 15W	15	7	105
		Fan	70	5	350
		Led Tube Light	20	5	100
		Old Fan	150	5	750
		Computer	120	3	360

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 39



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Printer	150	3	450
		PC Machine	450	2	900
		FTL	46	9	414
		Exhaust	60	2	120
		Cooler	250	2	500
48	Principal Chamber	Led Tube Light	20	10	200
		AC 1.ST	1857	1	1857
		Fan	70	5	350
		Led TV	100	2	200
		Computer	120	1	120
		Cooler	250	1	250
49	Passage Area	Led Bulb 15W	15	6	90
50	Server Room	AC 1.ST	1857	1	1857
		Fan	70	1	70
		CFL18WX2 Nos.	44	4	176
		Led Tube light	20	1	20
		Printer	150	1	150
		Computer	120	2	240
51	library	FTL	46	40	1840
		Fan	70	4	280
		Old Fan	150	12	1800
		Computer	120	6	720
		Printer	150	2	300
		PC Machine	450	1	450
52	Open Area	lift Machine	3750	1	3750
		Water Cooler	500	1	500
53	Reading Room	Old Fan	150	4	600
		FTL	46	20	920
54	Auditorium Hall	FTL	46	82	3772
		Led Tube light	20	14	280
		Old Fan	150	14	2100
I		Fan	70	5	350
55	Passage	Led Bulb 15W	15	7	105
56	Chemistry Lab 1	Old Fan	150	5	750
		Fan	70	1	70
		FTL	46	54	2484
		Exhaust	60	3	180
		Led Tube Light	20	3	60
		Hot Air Oven	1500	1	1500

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 40



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Centrifuge	120	1	120
57	Chemsitry HOD Room	Old Fan	150	1	150
		FTL	46	2	92
		Microwave	1500	1	1500
		Cooler	250	1	250
58	Staff Room	FTL	46	2	92
		Fan	70	1	70
		Computer	120	1	120
		Printer	150	1	150
59	Chemistry Lab 2	Old Fan	150	4	600
		Led Tube Light	20	6	120
		Led Bulb 9W	9	2	18
		Exhaust	60	2	120
		Hot Air Oven	1500	1	1500
60	Instrumentat ion Lab	FTL	46	6	276
		Fan	70	1	70
		Exhaust	60	1	60
61	Store	Led Tube Light	20	6	120
		Fan	70	2	140
		Old Fan	150	1	150
62	Biochemistry Lab	Led Tube Light	20	6	120
		Old Fan	150	5	750
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		FTL	46	1	46
		Fan	70	2	140
		Exhaust	60	2	120
		Computer	120	2	240
		Printer	150	1	150
63	Chemistry Lab 3	Led Tube Light	20	7	140
		Fan	70	5	350
64	Dept of Biochemistry & Chemsitry Staff	Led Tube Light	20	6	120
		Old Fan	150	1	150
		Fridge	250	1	250
65	Passage	Led Bulb 9W	9	5	45
66	Room No. 113 Smart Class-1	Led Tube Light	20	28	560
		Interactive Board	250	1	250
		Old Fan	150	6	900

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 41





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fan	70	1	70
67	Chemistry Research Lab	Led Tube Light	20	4	80
		Old Fan	150	1	150
		Fan	70	1	70
		Digital Calorimeter	200	1	200
		Hot Air Oven	1500	1	1500
		Centrifuge	120	1	120
68	Chemistry Lab 5	FTL	46	5	230
		Led Tube Light	20	4	80
		Old Fan	150	4	600
		Microwave	1500	1	1500
		Hot Air Oven	1500	1	1500
		Exhaust	60	2	120
69	Virtual Class	Fan	70	6	420
		FTL	46	6	276
		Led TV	100	1	100
70	Chemistry Instrumentation Lab	FTL	46	12	552
		Fan	70	4	280
		Fridge	250	2	500
71	Room	FTL	46	12	552
		Fan	70	4	280
	Outdoor	Motor 2HP	1500	1	1500
72	Room No. 130,131	FTL	46	14	644
		Fan	70	12	840
		Exhaust	60	4	240
73	Room No. 127,126	FTL	46	14	644
		Fan	70	12	840
		Exhaust	60	4	240
		Fridge	250	1	250
74	Room No. 128,129	FTL	46	1	46
		Fan	70	1	70
75	Quarter - College	FTL	46	4	184
		Fan	70	2	140
		Cooler	250	1	250
		Fridge	250	1	250
		Led TV	100	2	200
76	Cottage - 2Nos.	FTL	46	12	552
		Fan	70	6	420
		Geyser	1500	2	3000

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai - 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 42



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Cooler	250	2	500
		Fridge	250	2	500
		Computer	120	2	240
		Led TV	100	2	200
77	Seminar Hall - Ground Floor	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
78	Out door	Motor 2 HP	1500	1	1500
79	Generator Room	FTL	46	1	46
		Fan	70	1	70
80	Gymnasium Sports	Fan	70	2	140
		FTL	46	2	92
		Led Tube Light	20	2	40
81	Passage	Led Tube Light	20	9	180
82	Room No. 125 Nutrition Lab 1	Fan	70	6	420
		Led Tube Light	20	4	80
		FTL	46	5	230
		Exhaust	60	2	120
		Fridge	250	1	250
		Microwave	1500	5	7500
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		Cooler	250	1	250
83	room	Led Tube Light	20	1	20
		FTL	46	3	138
		Fan	70	3	210
		Printer	150	2	300
		Computer	120	2	240
		PC Machine	450	1	450
		Exhaust	60	1	60
		Projector	250	1	250
		Fridge	250	1	250
84	Room No. 118 Smart Class -2	Led Tube Light	20	18	360
		Old Fan	150	7	1050
		Printer	150	1	150
85	CPE	FTL	46	2	92
		Fan	70	2	140
86	Chemistry Lab -4	Old Fan	150	5	750
		Led Tube Light	20	6	120
		Exhaust	60	2	120
		Incubator	1500	1	1500

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 43



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Hot Air Oven	1500	1	1500
87	Room 121A	Projector	250	1	250
		FTL	46	2	92
		Fan	70	1	70
<b>First Floor</b>					
88	First Floor - Room No. 230 to 232	FTL	46	36	1656
		Fan	70	12	840
89	Clothing and Textile Department	Led Tube Light	20	17	340
		Fan	70	12	840
		Old Fan	150	13	1950
		Hot Air Oven	1500	1	1500
		FTL	46	8	368
		Fridge	250	1	250
		PC Machine	450	1	450
		Computer	120	1	120
		Printer	150	1	150
90	Passage Area	Led Bulb 9W	9	5	45
91	Room No. 218	Old Fan	150	4	600
		Fan	70	1	70
		FTL	46	4	184
92	Room No. 221 Smart Class -3	Led Tube Light	20	6	120
		Old Fan	150	7	1050
		FTL	46	16	736
		Projector	250	1	250
93	Dept of Maths	Fan	70	8	560
		Led Tube Light	20	18	360
		FTL	46	9	414
		Cooler	250	2	500
		Exhaust	60	2	120
		Wall Fan	60	7	420
		Computer	120	2	240
		Printer	150	2	300
94	Class Room MSC	FTL	46	4	184
		Fan	70	4	280
		Projector	250	1	250
95	MSC I& II	FTL	46	2	92
		Fan	70	2	140
96	Passage	FTL	46	5	230
97	Wash Room	FTL	46	2	92

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 44



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Exhaust	60	1	60
98	Open Area	Water Cooler	500	1	500
99	Class Rooms	Fan	70	36	2520
		FTL	46	60	2760
100	Lift Area	Lift Machine	3750	1	3750
101	Room 228 & 227	FTL	46	12	552
		Fan	70	18	1260
102	Sports Room	FTL	46	12	552
		Led Tube Light	20	2	40
		Projector	250	1	250
		70W SV Lamp	90	10	900
		Exhaust	60	2	120
		Wall Fan	60	5	300
		Fan	70	1	70
		Computer	120	1	120
		Printer	150	1	150
103	Room No. 215	Fan	70	2	140
		FTL	46	4	184
104	Passage	Led Bulb 15W	15	4	60
105	Physics Lab-2	Old Fan	150	5	750
		Fan	70	3	210
		FTL	46	8	368
106	Physics Lab-3	FTL	46	8	368
		Led Tube Light	20	1	20
		Old Fan	150	9	1350
		Fan	70	3	210
		60W Bulb	60	1	60
		Spectrophotometer	180	3	540
107	Physics Lab-4	FTL	46	8	368
		Led Tube Light	20	1	20
		Old Fan	150	9	1350
		Fan	70	3	210
		60W Bulb	60	1	60
		Spectrophotometer	180	3	540
108	Room 210 - Physics Lab	FTL	46	6	276
		Wall Fan	60	7	420
		Computer	120	1	120
		Printer	150	1	150

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 45



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Water Cooler	500	1	500
108	Room No.209 Dept of Physics	FTL	46	4	184
		Old Fan	150	2	300
		Computer	120	1	120
		Printer	150	1	150
109	Physics Lab -1	Old Fan	150	6	900
		FTL	46	8	368
		Fan	70	3	210
110	Examination Cell	FTL	46	22	1012
		Fan	70	10	700
		Wall Fan	60	2	120
		Old Fan	150	3	450
		Computer	120	7	840
		Printer	150	3	450
		Cooler	250	1	250
		Led Tube Light	20	2	40
		PC Machine	450	5	2250
		AC IT	1300	2	2600
111	Conference Room	AC 1.5T	1857	2	3714
		Interactive Board	250	1	250
		FTL	46	8	368
		Fan	70	4	280
112	Room No.204,Computer Lab UGC	Cooler	250	4	1000
		Computer	120	25	3000
		Old Fan	150	4	600
		Fan	70	1	70
		Led Tube Light	20	5	100
		Projector	250	1	250
113	Room No. 205	Computer	120	42	5040
		Printer	150	6	900
		Old Fan	150	6	900
		Fan	70	5	350
		AC 1.5T	1857	2	3714
		Led Tube Light	20	26	520
114	Room No.203,202,201	Old Fan	150	12	1800
		Fan	70	3	210
		Computer	120	6	720
		Printer	150	3	450

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- I, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 46



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Led Tube Light	20	30	600
		Interactive Board	250	3	750
115	Passage	Led Bulb 9W	9	5	45
116	Common Room	Fan	70	3	210
		FTL	46	4	184
117	Seminar Hall - First Floor	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
118	Toilet	FTL	46	2	92
		Exhaust	60	1	60
<b>Second Floor</b>					
119	Second Floor - Common Room	FTL	46	3	138
		Fan	70	4	280
120	Room No. 301to 304	Led 2X2 Light	40	24	960
		Fan	70	16	1120
121	Room No. 305 and 306	Led 2X2 Light	40	12	480
		Fan	70	8	560
		Projector	250	2	500
122	Passage	Led Bulb 9W	9	16	144
123	Room No. 308 & 307 Computer Lab	Led 2X2 Light	40	11	440
		Fan	70	7	490
		Projector	250	1	250
		Computer	120	22	2640
		PC Machine	450	2	900
		Cooler	250	2	500
		AC .5T	1857	1	1857
124	Room No. 309 dept of Language	Led 2X2 Light	40	2	80
		Fan	70	2	140
125	Room No.310	Fan	70	8	560
		Led 2X2 Light	40	10	400
		Interactive Board	250	1	250
126	Room No.311Botany Lab	Fan	70	6	420
		Led 2X2 Light	40	8	320
		Wall Fan	60	2	120
127	Room No.312	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Wall Fan	60	2	120
128	Room No.313,314,315	Led 2X2 Light	40	18	720

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- I, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 47



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fan	70	12	840
129	Digital Zoology	Led Tube Light	20	7	140
		Fan	70	6	420
130	Microbiology Lab	FTL	46	11	506
		Fan	70	8	560
		Exhaust	60	2	120
		Laminar Air Flow	200	1	200
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		Fridge	250	2	500
		Computer	120	1	120
		Printer	150	1	150
131	Class Zoology	FTL	46	2	92
		Fan	70	4	280
		Incubator	1500	1	1500
		Hot Air Oven	1500	1	1500
		Fridge	250	1	250
		Exhaust	60	1	60
132	Biotechnology Lab	Fan	70	12	840
		FTL	46	12	552
		Incubator	1500	2	3000
		Hot Air Oven	1500	2	3000
		Fridge	250	1	250
		Exhaust	60	2	120
		Cooler	250	1	250
133	Botany & Microbiology Lab	Fan	70	3	210
		FTL	46	3	138
		Fridge	250	1	250
		Laminar Air Flow	200	1	200
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
134	Microbiology Lab-2	Fan	70	7	490
		FTL	46	3	138
		Cooler	250	1	250
		Incubator	1500	1	1500
		Distillation Plant	300	1	300
135	Class Room 331	Fan	70	9	630
		FTL	46	6	276

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 48





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

136	Lab-2	FTL	46	8	368
		Fan	70	12	840
		Incubator	1500	1	1500
		Hot Air Oven	1500	1	1500
		Centrifuge	120	1	120
137	Room No.317 Zoology & Biochemistry	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Computer	120	2	240
		PC Machine	450	1	450
		Printer	150	1	150
		Fridge	250	1	250
138	Room No.318	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Wall Fan	60	1	60
		Computer	120	1	120
		Printer	150	1	150
		Microwave	1500	1	1500
		Fridge	250	1	250
139	Botany Lab-2	Led 2X2 light	40	6	240
		Fan	70	4	280
		Wall Fan	60	1	60
140	Museum	Fan	70	1	70
		FTL	46	1	46
141	Room No. 333	Fan	70	6	420
		FTL	46	9	414
142	Room No.334	Fan	70	4	280
		FTL	46	12	552
143	Room No.335	Fan	70	4	280
		FTL	46	12	552
144	Seminar Hall	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
145	New Building Opposite Chemistry Dept	Led 2X2 light	40	33	1320
		Fan	70	36	2520
146	Out door	Led Street Light	30	36	1080
		<b>Total</b>		<b>3673</b>	<b>361709</b>

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 49



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 3.4.3. Current Profile

S.N.	LOCATION	FIXTURE	WATT	QTY	TOTAL
1	Hostel Block - C Office	Led Tube Light	20	3	60
		Fan	70	6	420
		Computer	120	2	240
		Printer	150	2	300
		PC Machine	450	1	450
		18W CFL	18	3	54
		Led Bulb 9W	9	1	9
		FTL	46	2	92
		Led TV	100	1	100
2	Passage	Led Tube Light	20	1	20
		Led Bulb 9W	9	1	9
3	Ground Floor - Open Area	Led Tube light	20	1	20
		Led Bulb 9W	9	1	9
		Fan	70	1	70
4	Passage	Led Tube light	20	6	120
		Led Bulb 9W	9	10	90
5	Ground Floor Rooms	FTL	46	26	1196
		Fan	70	13	910
6	Wash Rooms	FTL	46	3	138
		Led Tube Light	20	3	60
		Exhaust	60	3	180
		Geyser	1500	3	4500
7	Halls	FTL	46	32	1472
		Fan	70	12	840
		Cooler	250	2	500
8	First Floor Rooms	FTL	46	38	1748
		Fan	70	19	1330
9	Wash Rooms	FTL	46	3	138
		Led Tube light	20	3	60
		Exhaust	60	3	180
		Geyser	1500	3	4500
10	Passage Area	Led Bulb 9W	9	10	90
		Led Tube Light	20	6	120
11	Second Floor Room	FTL	46	38	1748
		Fan	70	19	1330
		FTL	46	3	138
12	Wash Rooms	Led Tube Light	20	3	60

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

saurengineers@gmail.com 9168402909/9867499812/9821116443.....Page | 50



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Exhaust	60	3	180
		Geyser	1500	3	4500
13	Passage Area	Led Bulb 9W	9	10	90
		Led Tube Light	20	6	120
14	Submersible	Motor 10 HP	7500	1	7500
15	Hostel Block B - Kitchen	FTL	46	1	46
		Fan	70	1	70
		Led Tube Light	20	1	20
16	Dinning Hall - Ground Floor	FTL	46	9	414
		Fan	70	5	350
17	Ground Floor Rooms	FTL	46	24	1104
		Fan	70	24	1680
18	First Floor Rooms	FTL	46	27	1242
		Fan	70	27	1890
19	Second Floor Room	FTL	46	27	1242
		Fan	70	27	1890
20	Hostel Block A - Ground Floor Rooms	Led Tube Light	20	87	1740
		Fan	70	87	6090
21	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
22	First Floor Rooms	Led Tube Light	20	87	1740
		Fan	70	87	6090
23	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
24	Second Floor Rooms	Led Tube Light	20	78	1560
		Fan	70	78	5460
		Water Cooler	500	1	500
25	Wash Rooms	Led Tube Light	20	4	80
		FTL	46	4	184
		Geyser	1500	4	6000
		Exhaust	60	4	240
26	Dinning Hall	Old Fan	150	13	1950
		Led Bulb 9W	9	14	126
		Cooler	250	1	250
		Exhaust	60	2	120
		Fridge	250	1	250
		Fan	70	1	70

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 51



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Led TV	100	1	100
		Water Cooler	500	1	500
		Deep Freezer	650	2	1300
27	Roti Making Room	Led Tube Light	20	2	40
		Exhaust	60	1	60
28	Hostel Block D	Water Cooler	500	1	500
29	Ground Floor Room	Led Tube light	20	8	160
		Fan	70	8	560
30	Wash Room	FTL	46	1	46
		Led Tube light	20	1	20
		Geyser	1500	1	1500
31	Passage	Led Bulb 9W	9	10	90
32	First Floor Room	Led Tube Light	20	10	200
		Fan	70	10	700
33	Wash Room	FTL	46	1	46
		Led Tube light	20	1	20
		Geyser	1500	1	1500
34	Passage	Led Bulb 9W	9	12	108
35	Second Floor Room	Led Tube Light	20	10	200
		Fan	70	10	700
36	Passage	Led Bulb 9W	9	12	108
37	Wash Room	FTL	46	1	46
		Led Tube Light	20	1	20
		Geyser	1500	1	1500
38	Submersible	Motor 7.5 HP	5625	1	5625
39	Dept. Of Human Development	Cooler	250	1	250
		Fan	70	8	560
		FTL	46	4	184
		Led Tube light	20	5	100
		Projector	250	1	250
40	Dept. of Resource Management	Led Tube light	20	13	260
		Fan	70	8	560
		Printer	150	2	300
		Computer	120	2	240
		Fridge	250	1	250
		PC Machine	450	1	450
		Cooler	250	1	250
41	warden House	Fan	70	2	140
		Led Tube Light	20	4	80
		Cooler	250	1	250

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 52



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Led Tv	100	1	100
		Fridge	250	1	250
42	Principal Bungalow	Cooler	250	2	500
		Motor HP	750	1	750
		Led Tube Light	20	6	120
		Fan	70	6	420
		Fridge	250	1	250
		Led Tv	100	1	100
43	Panel Room Near Transformers	FTL	46	8	368
		Fan	70	4	280
		Cooler	250	2	500
		Exhaust	60	1	60
44	Canteen Area - STD	Fridge	250	1	250
		Fan	70	1	70
		Led Bulb 9W	9	1	9
45	Canteen	Led Tube Light	20	12	240
		Fan	70	9	630
		Hot Case	1500	1	1500
		Deep Freezer	650	2	1300
		Fridge	250	1	250
		Exhaust	60	2	120
		Mixer	150	1	150
		Microwave	1500	1	1500
		Induction	2000	2	4000
46	Shops	Lep Tube Light	20	2	40
		Fridge	250	1	250
		PC Machine	450	1	450
		Fan	70	2	140
<b>Ground Floor</b>					
47	College Building office	Led Bulb 15W	15	7	105
		Fan	70	5	350
		Led Tube Light	20	5	100
		Old Fan	150	5	750
		Computer	120	3	360
		Printer	150	3	450
		PC Machine	450	2	900
		FTL	46	9	414
		Exhaust	60	2	120
		Cooler	250	2	500
48	Principal Chamber	Led Tube Light	20	10	200

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 53



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		AC 1.ST	1857	1	1857
		Fan	70	5	350
		Led TV	100	2	200
		Computer	120	1	120
		Cooler	250	1	250
49	Passage Area	Led Bulb 15W	15	6	90
50	Server Room	AC 1.ST	1857	1	1857
		Fan	70	1	70
		CFL18WX2 Nos.	44	4	176
		Led Tube light	20	1	20
		Printer	150	1	150
		Computer	120	2	240
51	library	FTL	46	40	1840
		Fan	70	4	280
		Old Fan	150	12	1800
		Computer	120	6	720
		Printer	150	2	300
		PC Machine	450	1	450
52	Open Area	lift Machine	3750	1	3750
		Water Cooler	500	1	500
53	Reading Room	Old Fan	150	4	600
		FTL	46	20	920
54	Auditorium Hall	FTL	46	82	3772
		Led Tube light	20	14	280
		Old Fan	150	14	2100
I		Fan	70	5	350
55	Passage	Led Bulb 1SW	15	7	105
56	Chemistry Lab 1	Old Fan	150	5	750
		Fan	70	1	70
		FTL	46	54	2484
		Exhaust	60	3	180
		Led Tube Light	20	3	60
		Hot Air Oven	1500	1	1500
		Centrifuge	120	1	120
57	Chemsitry HOD Room	Old Fan	150	1	150
		FTL	46	2	92
		Microwave	1500	1	1500
		Cooler	250	1	250
58	Staff Room	FTL	46	2	92
		Fan	70	1	70

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 54



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Computer	120	1	120
		Printer	150	1	150
59	Chemistry Lab 2	Old Fan	150	4	600
		Led Tube Light	20	6	120
		Led Bulb 9W	9	2	18
		Exhaust	60	2	120
		Hot Air Oven	1500	1	1500
60	Instrumentat ion Lab	FTL	46	6	276
		Fan	70	1	70
		Exhaust	60	1	60
61	Store	Led Tube Light	20	6	120
		Fan	70	2	140
		Old Fan	150	1	150
62	Biochemistry Lab	Led Tube Light	20	6	120
		Old Fan	150	5	750
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		FTL	46	1	46
		Fan	70	2	140
		Exhaust	60	2	120
		Computer	120	2	240
		Printer	150	1	150
63	Chemistry Lab 3	Led Tube Light	20	7	140
		Fan	70	5	350
64	Dept of Biochemistry & Chemsity Staff	Led Tube Light	20	6	120
		Old Fan	150	1	150
		Fridge	250	1	250
65	Passage	Led Bulb 9W	9	5	45
66	Room No. 113 Smart Class-1	Led Tube Light	20	28	560
		Interactive Board	250	1	250
		Old Fan	150	6	900
		Fan	70	1	70
67	Chemistry Research Lab	Led Tube Light	20	4	80
		Old Fan	150	1	150
		Fan	70	1	70
		Digital Calorimeter	200	1	200
		Hot Air Oven	1500	1	1500
		Centrifuge	120	1	120
68	Chemistry Lab 5	FTL	46	5	230

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 55





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Led Tube Light	20	4	80
		Old Fan	150	4	600
		Microwave	1500	1	1500
		Hot Air Oven	1500	1	1500
		Exhaust	60	2	120
69	Virtual Class	Fan	70	6	420
		FTL	46	6	276
		Led TV	100	1	100
70	Chemsitry Instrumentat ion Lab	FTL	46	12	552
		Fan	70	4	280
		Fridge	250	2	500
71	Room	FTL	46	12	552
		Fan	70	4	280
	Outdoor	Motor 2HP	1500	1	1500
72	Room No. 130,131	FTL	46	14	644
		Fan	70	12	840
		Exhaust	60	4	240
73	Room No. 127,126	FTL	46	14	644
		Fan	70	12	840
		Exhaust	60	4	240
		Fridge	250	1	250
74	Room No. 128,129	FTL	46	1	46
		Fan	70	1	70
75	Quarter - College	FTL	46	4	184
		Fan	70	2	140
		Cooler	250	1	250
		Fridge	250	1	250
		Led TV	100	2	200
76	Cottage - 2Nos.	FTL	46	12	552
		Fan	70	6	420
		Geyser	1500	2	3000
		Cooler	250	2	500
		Fridge	250	2	500
		Computer	120	2	240
		Led TV	100	2	200
77	Seminar Hall - Ground Floor	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
78	Out door	Motor 2 HP	1500	1	1500
79	Generator Room	FTL	46	1	46
		Fan	70	1	70

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 56



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

80	Gymnasium Sports	Fan	70	2	140
		FTL	46	2	92
		Led Tube Light	20	2	40
81	Passage	Led Tube Light	20	9	180
82	Room No. 125 Nutrition Lab 1	Fan	70	6	420
		Led Tube Light	20	4	80
		FTL	46	5	230
		Exhaust	60	2	120
		Fridge	250	1	250
		Microwave	1500	5	7500
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		Cooler	250	1	250
83	room	Led Tube Light	20	1	20
		FTL	46	3	138
		Fan	70	3	210
		Printer	150	2	300
		Computer	120	2	240
		PC Machine	450	1	450
		Exhaust	60	1	60
		Projector	250	1	250
		Fridge	250	1	250
84	Room No. 118 Smart Class -2	Led Tube Light	20	18	360
		Old Fan	150	7	1050
		Printer	150	1	150
85	CPE	FTL	46	2	92
		Fan	70	2	140
86	Chemistry Lab -4	Old Fan	150	5	750
		Led Tube Light	20	6	120
		Exhaust	60	2	120
		Incubator	1500	1	1500
		Hot Air Oven	1500	1	1500
87	Room 121A	Projector	250	1	250
		FTL	46	2	92
		Fan	70	1	70
<b>First Floor</b>					
88	First Floor - Room No. 230 to 232	FTL	46	36	1656
		Fan	70	12	840
89	Clothing and Textile Department	Led Tube Light	20	17	340
		Fan	70	12	840

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 57



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Old Fan	150	13	1950
		Hot Air Oven	1500	1	1500
		FTL	46	8	368
		Fridge	250	1	250
		PC Machine	450	1	450
		Computer	120	1	120
		Printer	150	1	150
90	Passage Area	Led Bulb 9W	9	5	45
91	Room No. 218	Old Fan	150	4	600
		Fan	70	1	70
		FTL	46	4	184
92	Room No. 221 Smart Class -3	Led Tube Light	20	6	120
		Old Fan	150	7	1050
		FTL	46	16	736
		Projector	250	1	250
93	Dept of Maths	Fan	70	8	560
		Led Tube Light	20	18	360
		FTL	46	9	414
		Cooler	250	2	500
		Exhaust	60	2	120
		Wall Fan	60	7	420
		Computer	120	2	240
		Printer	150	2	300
94	Class Room MSC	FTL	46	4	184
		Fan	70	4	280
		Projector	250	1	250
95	MSC I & II	FTL	46	2	92
		Fan	70	2	140
96	Passage	FTL	46	5	230
97	Wash Room	FTL	46	2	92
		Exhaust	60	1	60
98	Open Area	Water Cooler	500	1	500
99	Class Rooms	Fan	70	36	2520
		FTL	46	60	2760
100	Lift Area	Lift Machine	3750	1	3750
101	Room 228 & 227	FTL	46	12	552
		Fan	70	18	1260
102	Sports Room	FTL	46	12	552
		Led Tube Light	20	2	40
		Projector	250	1	250

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 58



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		70W SV Lamp	90	10	900
		Exhaust	60	2	120
		Wall Fan	60	5	300
		Fan	70	1	70
		Computer	120	1	120
		Printer	150	1	150
103	Room No. 215	Fan	70	2	140
		FTL	46	4	184
104	Passage	Led Bulb 15W	15	4	60
105	Physics Lab-2	Old Fan	150	5	750
		Fan	70	3	210
		FTL	46	8	368
106	Physics Lab-3	FTL	46	8	368
		Led Tube Light	20	1	20
		Old Fan	150	9	1350
		Fan	70	3	210
		60W Bulb	60	1	60
		Spectrophotometer	180	3	540
107	Physics Lab-4	FTL	46	8	368
		Led Tube Light	20	1	20
		Old Fan	150	9	1350
		Fan	70	3	210
		60W Bulb	60	1	60
		Spectrophotometer	180	3	540
108	Room 210 - Physics Lab	FTL	46	6	276
		Wall Fan	60	7	420
		Computer	120	1	120
		Printer	150	1	150
		Water Cooler	500	1	500
108	Room No.209 Dept of Physics	FTL	46	4	184
		Old Fan	150	2	300
		Computer	120	1	120
		Printer	150	1	150
109	Physics Lab -1	Old Fan	150	6	900
		FTL	46	8	368
		Fan	70	3	210
110	Examination Cell	FTL	46	22	1012
		Fan	70	10	700
		Wall Fan	60	2	120

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

saurengineers@gmail.com 9168402909/9867499812/9821116443.....Page | 59



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Old Fan	150	3	450
		Computer	120	7	840
		Printer	150	3	450
		Cooler	250	1	250
		Led Tube Light	20	2	40
		PC Machine	450	5	2250
		AC IT	1300	2	2600
111	Conference Room	AC 1.5T	1857	2	3714
		Interactive Board	250	1	250
		FTL	46	8	368
		Fan	70	4	280
112	Room No.204,Computer Lab UGC	Cooler	250	4	1000
		Computer	120	25	3000
		Old Fan	150	4	600
		Fan	70	1	70
		Led Tube Light	20	5	100
		Projector	250	1	250
113	Room No. 205	Computer	120	42	5040
		Printer	150	6	900
		Old Fan	150	6	900
		Fan	70	5	350
		AC 1.5T	1857	2	3714
		Led Tube Light	20	26	520
114	Room No.203,202,201	Old Fan	150	12	1800
		Fan	70	3	210
		Computer	120	6	720
		Printer	150	3	450
		Led Tube Light	20	30	600
		Interactive Board	250	3	750
115	Passage	Led Bulb 9W	9	5	45
116	Common Room	Fan	70	3	210
		FTL	46	4	184
117	Seminar Hall - First Floor	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
118	Toilet	FTL	46	2	92
		Exhaust	60	1	60
<b>Second Floor</b>					
119	Second Floor - Common Room	FTL	46	3	138
		Fan	70	4	280
120	Room No. 301to 304	Led 2X2 Light	40	24	960

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 60



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fan	70	16	1120
121	Room No. 305 and 306	Led 2X2 Light	40	12	480
		Fan	70	8	560
		Projector	250	2	500
122	Passage	Led Bulb 9W	9	16	144
123	Room No. 308 & 307 Computer Lab	Led 2X2 Light	40	11	440
		Fan	70	7	490
		Projector	250	1	250
		Computer	120	22	2640
		PC Machine	450	2	900
		Cooler	250	2	500
		AC .5T	1857	1	1857
124	Room No. 309 dept of Language	Led 2X2 Light	40	2	80
		Fan	70	2	140
125	Room No.310	Fan	70	8	560
		Led 2X2 Light	40	10	400
		Interactive Board	250	1	250
126	Room No.311Botany Lab	Fan	70	6	420
		Led 2X2 Light	40	8	320
		Wall Fan	60	2	120
127	Room No.312	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Wall Fan	60	2	120
128	Room No.313,314,315	Led 2X2 Light	40	18	720
		Fan	70	12	840
129	Digital Zoology	Led Tube Light	20	7	140
		Fan	70	6	420
130	Microbiology Lab	FTL	46	11	506
		Fan	70	8	560
		Exhaust	60	2	120
		Laminar Air Flow	200	1	200
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
		Fridge	250	2	500
		Computer	120	1	120
		Printer	150	1	150
131	Class Zoology	FTL	46	2	92
		Fan	70	4	280
		Incubator	1500	1	1500
		Hot Air Oven	1500	1	1500

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 61



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fridge	250	1	250
		Exhaust	60	1	60
132	Biotechnology Lab	Fan	70	12	840
		FTL	46	12	552
		Incubator	1500	2	3000
		Hot Air Oven	1500	2	3000
		Fridge	250	1	250
		Exhaust	60	2	120
		Cooler	250	1	250
133	Botany & Microbiology Lab	Fan	70	3	210
		FTL	46	3	138
		Fridge	250	1	250
		Laminar Air Flow	200	1	200
		Hot Air Oven	1500	1	1500
		Incubator	1500	1	1500
134	Microbiology Lab-2	Fan	70	7	490
		FTL	46	3	138
		Cooler	250	1	250
		Incubator	1500	1	1500
		Distillation Plant	300	1	300
135	Class Room 331	Fan	70	9	630
		FTL	46	6	276
136	Lab-2	FTL	46	8	368
		Fan	70	12	840
		Incubator	1500	1	1500
		Hot Air Oven	1500	1	1500
		Centrifuge	120	1	120
137	Room No.317 Zoology & Biochemistry	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Computer	120	2	240
		PC Machine	450	1	450
		Printer	150	1	150
		Fridge	250	1	250
138	Room No.318	Led 2X2 Light	40	6	240
		Fan	70	4	280
		Wall Fan	60	1	60
		Computer	120	1	120
		Printer	150	1	150
		Microwave	1500	1	1500

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 62

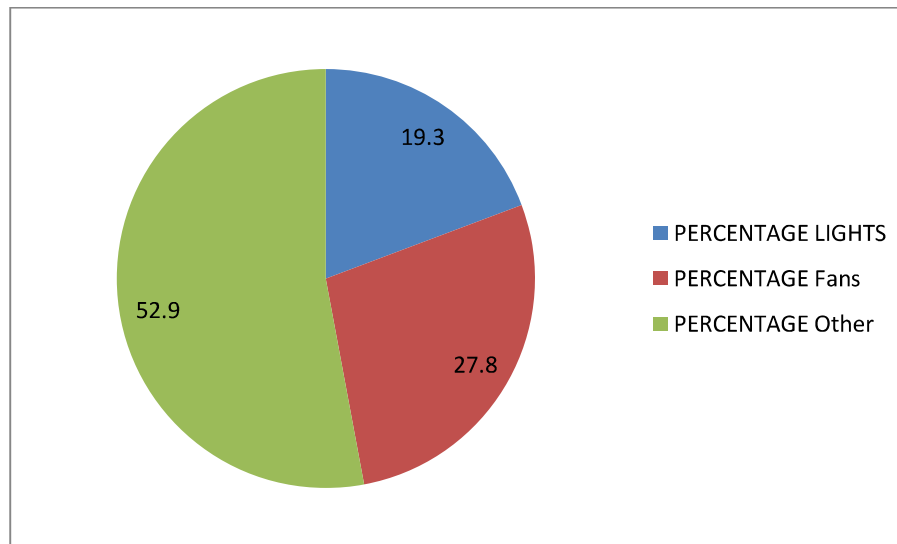


## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

		Fridge	250	1	250
139	Botany Lab-2	Led 2X2 ight	40	6	240
		Fan	70	4	280
		Wall Fan	60	1	60
140	Museum	Fan	70	1	70
		FTL	46	1	46
141	Room No. 333	Fan	70	6	420
		FTL	46	9	414
142	Room No.334	Fan	70	4	280
		FTL	46	12	552
143	Room No.335	Fan	70	4	280
		FTL	46	12	552
144	Seminar Hall	Led 2X2 Light	40	46	1840
		Fan	70	48	3360
145	New Building Opposite Chemistry Dept	Led 2X2 light	40	33	1320
		Fan	70	36	2520
146	Out door	Led Street Light	30	36	1080
		<b>Total</b>		<b>3673</b>	<b>361709</b>

LOAD PROFILE (KW)				
LOAD	LIGHTS	Fans	Other	TOTAL
VALUES	69.80	100.50	191.41	361.71



**Note: Load Profile has not changed much (0.25%).**





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 3.5. Losses

#### 3.5.1. Demand

Reduction in contract demand is recommended to RMD in the year.

AVERAGE	KVAH
ACTUAL BILLED	158
RECORDED MAXIMUM	78

Expected Saving 80 KVA per billing and 27840; which means opportunity to save approximately Rs. 6500000 over twenty years.

#### 3.5.2. Power Factor

Correction in Power Factor is recommended to 99%.

	KVAH	PF	KW
ACTUAL	217934	0.91	198319.9
EXPECTED	198518	0.999	198319.9

Expected Saving 19500 KVAh Units and Rs. 165000 per annum; which means opportunity to save approximately Rs. 3000000 over twenty years.

#### 3.5.3. LED LIGHTS

Replacement of Traditional FTLs to LED Lights is recommended.

Expected Saving 11.60Kw and 60Kwh approximately per day saving can be possible.

Expected Saving Rs. 125000 per annum in Units and Rs. 35000 in Demand; which means opportunity to save approximately Rs. 3000000 over twenty years.

#### 3.5.4. BLDC

Replacement of Traditional Fans to BLDC Fan is recommended.

Expected Saving 13.89Kw and 60Kwh approximately per day saving can be possible.

Expected Saving Rs. 125000 per annum in Units and Rs. 35000 in Demand; which means opportunity to save approximately Rs. 3000000 over twenty years.



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 4. GREEN AUDIT

#### 4.1. Floral Diversity

Year	No. of Trees
BEFORE 2022-2023	220
2022-2023	05
2023-2024	04
<b>Total</b>	<b>229</b>

Sl.No.	CommonName	BotanicalName	Quantity
1	Awla	<i>Phyllanthusemblica</i>	17
2	Mango	<i>Mangiferaindica</i>	41
3	Palash	<i>Buteamonosperma</i>	3
4	Palm	<i>Roystonearegia</i>	13
5	Jamun	<i>Syzygiumcumini</i>	7
6	Amrud	<i>Psidiumguajava</i>	4
7	Bel	<i>Aeglemarmelos</i>	1
8	Neem	<i>Azadirachtaindica</i>	10
9	Bottle brush	<i>Callistemon lanceolatus</i>	2
10	Peepal	<i>Ficusreligiosa</i>	4
11	Subabool	<i>Leucaenaleucocephala</i>	6
12	Gulmohar	<i>Delonixregia</i>	6
13	Chicku	<i>Manilkarazapota</i>	1
14	Sita Ashok	<i>Saracaindica</i>	2
15	Laxmitara	<i>Simaroubaglauca</i>	1
16	Maulshri	<i>Mimusopselengi</i>	5
17	Kadam	<i>Neolamarckiacadamba</i>	4
18	Karanj	<i>Millettiapinnata</i>	2
19	Shisham	<i>Dalbergiasissoo</i>	7
20	Kaner	<i>Neriumindiaum</i>	1
21	Parijat	<i>Nyctanthes</i>	5
22	Kapok	<i>Ceibapentandra</i>	2
23	Rakhi	<i>Calliandrahaematocephala</i>	4
24	MeethiNeem	<i>Murrayakeonigii</i>	1
25	Palm	<i>Roystonearegia</i>	13
26	Imli	<i>Tamarindusindica</i>	4
27	Ashok	<i>Polyalthialongifolia</i>	47
28	Jhaow	<i>Casurina</i>	1
29	Nilgiri	<i>Eucalyptus sp</i>	6
30	Munga	<i>Moringaoleifera</i>	1
31	Madhukamini	<i>Murrayapaniculata</i>	1
32	Sitafal	<i>AnnonaSquamosa</i>	1
33	Bargad	<i>Ficusbenghalensis</i>	2
34	Copper pod tree	<i>Peltaphorumsp</i>	7
35	Pride of India	<i>Lagerstroemia speciosa</i>	6

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 65



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### SUMMARY

Sr. No.	Area	Total Trees
<b>Total</b>		<b>229</b>

### 4.2. Faunal Diversity

S.N.	Scientific Name	Common Name	Family	Category
1.	Amoeba proteus	Amoeba	Amoebidae	Very Common
2.	Euglena viridis	Euglena	Euglenaceae	Very Common
3.	Paramecium cardatum	Paramecium	Parameciidae	Very Common
4.	Cyclops	Cyclops	Cyclopidae	Common
5.	Daphnia	Daphnia	Daphniidae	Common
6.	Vorticella convallaria	Vorticella	Vorticellidae	Common
7.	Lumbricus terrestris	Earthworm	Lumbricidae	Very Common
8.	Hirudo medicinalis	Leech	Clitellata (Class)	Common
9.	Periplaneta americana	Cockroach	Blattidae	Common
10.	Formica rufa	Ant	Formicidae	Very Common
11.	Culiseta longiareolata	Mosquito	Culicidae	Very Common
12.	Musca domestica	Housefly	Muscidae	Very Common
13.	Apis cerana indica	Honey bee	Apidae	Very Common
14.	Trigoniulus corallinus	Millipede	Diplopoda (Class)	Common
15.	Scolopendra cataracta	Centipede	Chilopoda (Class)	Common
16.	Schistocerca americana	Grasshopper	Acrididae	Rare
17.	Aciagrion occidentale	Green Striped Slender	Coenagrionoidae	Common
18.	Agriocnemis femina	Pruinosed Dartlet	Coenagrionoidae	Common
19.	Ceriagrion coromandelianum	Coromandel Marsh Dart	Coenagrionoidae	Rare
20.	Ischnura aurora	Golden Dartlet	Coenagrionoidae	Rare
21.	Anax guttatus	Blue-tailed Green Darner	Aeshnidae	Rare
22.	Paragomphus lineatus	Common Hooktail	Gomphidae	Common
23.	Brachythemis contaminata	Ditch Jewel	Libellulidae	Common
24.	Orthetrum taeniolatum	Taeniolate Marsh Hawk	Libellulidae	Rare
25.	Orthetrum sabina	Green Marsh Hawk	Libellulidae	Rare
26.	Papilio polytes	Common Mormon	Papilionidae	Common
27.	Talicauda nyseus	Red Pierrot	Lycanidae	Rare
28.	Euchrysops cnejus	Gram blue	Lycanidae	Common
29.	Castalius rosimon	Common Pierrot	Lycanidae	Common
30.	Elymnias hypermnestra	Common Palm fly	Nymphalidae	Rare
31.	Melanitis leda	Common Evening Brown	Nymphalidae	Common
32.	Melanitis phedima	Dark Evening Brown	Nymphalidae	Common

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 66



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

33.	<i>Junonia lemonias</i>	Lemon Pansy	Nymphalidae	Rare
34.	<i>Danaus chrysippus</i>	Plain Tiger	Nymphalidae	Common
35.	<i>Eurema brigitta</i>	Small Grass Yellow	Pieridae	Common
36.	<i>Leptosia nina</i>	Psyche	Pieridae	Common
37.	<i>Pseudaletia separata</i>	Northern Armyworm	Noctuidae	Rare
38.	<i>Neoscona chrysanthusi</i>	Orb Weaver Spider	Araneidae	Rare
39.	<i>Hottentotta tamulus</i>	Indian red scorpion	Buthidae	Rare
40.	<i>Pardosa amkhasensis</i>	Ground Hunter	Lycosidae	Rare
41.	<i>Bellamyia bengalensis</i>	Bellamyia	Viviparidae	Rare
42.	<i>Hoplobatrachus tigerinus</i>	Indian Bullfrog	Dicroglossidae	Rare
43.	<i>Rana temporaria</i>	Common Frog	Ranidae	Rare
44.	<i>Calotes versicolor</i>	Garden Lizard/ Girgit	Agamidae	Common
45.	<i>Zootoca vivipara</i>	Common Viviparous Lizard	Lacertidae	Common
46.	<i>Hemidactylus frenatus</i>	Common house gecko	Gekkonidae	Common
47.	<i>Ptyas mucosa</i>	Rat Snake	Colubridae	Rare
48.	<i>Lycodon aulicus</i>	Ganeta	Colubridae	Rare
49.	Checked Keelback	Paani wala Saap	Natricidae	Rare
50.	<i>Naja naja</i>	Indian Cobra	Elapidae	Rare
51.	<i>Bungarus caeruleus</i>	Common Indian Krait	Elapidae	Rare
52.	<i>Ardeola grayii</i>	Indian Pond Heron	Ardreidae	Common
53.	<i>Columba livia</i>	Blue Rock Pigeon	Columbidae	Very Common
54.	<i>Upupa epops</i>	Common Hoopoe	Upupidae	Common
55.	<i>Ocyrceros birostris</i>	Indian Grey Hornbill	Bucerotidae	Common
56.	<i>Eudynamys scolopaceus</i>	Asian Koel	Cuculidae	Common
57.	<i>Corvus splendens</i>	House Crow	Corvidae	Very Common
58.	<i>Passer domesticus</i>	House Sparrow	Passeridae	Common
59.	<i>Saxicoldies fulicatus</i>	Indian Robin	Laniidae	Common
60.	<i>Acridotheres trisits</i>	Common Myna	Muscicapidae	Common
61.	<i>Gluacidium radiatum</i>	Jungle owlet	Strigidae	Rare
62.	<i>Dicrurus macrocerus</i>	Black Drongo	Corvidae	Rare
63.	<i>Coracias benghalensis</i>	Indian roller	Coraciidae	Rare
64.	<i>Psittacula cyanocephala</i>	Plum Headed Parakeet	Psittaculidae	Common
65.	<i>Sciurus</i>	Squirrel	Sciuridae	Common
66.	Bonnet macaque	Monkey (Red)	Primates (Order)	Common
67.	<i>Semnopithecus</i>	Monkey (Black)	Primates (Order)	Common
68.	<i>Felis catus</i>	Domestic Cat	Felidae	Common
69.	<i>Canis familiaris</i>	Domestic Dog	Canidae	Common
70.	<i>Bos taurus</i>	Cattle (Cow)	Bovidae	Common

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 67



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 4.3. Green Approach

Sr. No.	ACTIVITY	YES/NO	REMARK
1.	E-waste collection box:	YES	E-waste is collected in separate designated box which is planned to recycle through qualified designated agency in later stages.
2.	Dry-waste collection box:	YES	Institute has separate Dry waste Management system. Dry waste is collected in separate designated box which is planned to recycle through local body waste management system.
3.	Wet-waste collection box:	YES	Wet waste is directly put in composting.
4.	Paper-waste collection box:	YES	Paper waste is collected in separate designated box which is planned to dispose through qualified designated agency.
5.	Cleaning:	YES	Institute runs good cleaning practice.
6.	Composting:	YES	Institute composts their wet waste.
7.	Safe and waste free environment drive:	YES	Institute runs Safe and waste free environment drive within as well as outside campus.
8.	Sewage treatment	NO	
9.	Waste management	NO	
10.	Swachh Bharat campaign	NO	
11.	Water resources	YES	Institute have sufficient water resources from owned Well, Borewell and local body supply.
12.	Rain water harvesting:	YES	Institute has implemented basic rain water harvesting system.
13.	Waste water treatment:	NO	
14.	RO water treatment	YES	
15.	Greenery:	YES	Institute has maintained Greenery within campus
16.	Plantation: (trees and plants in campus)	YES	Institute do Plantation in campus during monsoon.
17.	Plantation drive by the institute: (trees and plants outside campus)	NO	
18.	LED lights:	YES	Institute Uses LED lights at maximum of the points for Illumination requirements.
19.	Energy & environment monitoring systems	NO	



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

20.	Save energy posters	NO	
21.	Energy management	NO	
22.	Renewables (solar/wind)	YES	Institute has installed SPV System
23.	Sensor based equipment	NO	
24.	Switch off posters	NO	
25.	Emergency contact numbers list:	NO	
26.	Health/medical facilities	YES	Institute has medical facilities within campus.
27.	Critical safety parameters:	NO	
28.	Disaster management training	NO	
29.	Awareness, approach, Seminars	YES	Institute conduct/participate in seminars, lectures, symposiums for good environment awareness and approach.
30.	Code of conducts, SOPs	NO	

**No Record prepared and preserved by college for 2022-23**



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 5. ENVIRONMENT AUDIT 2023-24

#### 5.1. Air Quality

POLLUTANTS	PM 2.5	PM 10	O3	CO	NO2	SO2
LIMIT	35	150	21	35	10	6
UNIT	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>	µgm/m <sup>3</sup>
VALUE	22	60	11	6	3	2
REMARK	GOOD	GOOD	GOOD	GOOD	GOOD	GOOD

#### 5.2. Water Quality

##### 5.2.1. Water Quality

Sr. No.	Category	Location	Quality			Usage
			TDS	PH	ORP	
1.	Municipal / Local Body Water Supply	CAMPUS.	150	7.8	300	Drinking
2.	Bore well	CAMPUS.	400	6.8	350	ALL PURPOSE
3.	Open Well	CAMPUS.	210	7.1	310	ALL PURPOSE
4.	Any other source	NA	NA	NA	NA	NA

##### 5.2.2. Filtration

1. Ro Based Filtration Plants near water supply point total 12 Numbers.

##### 5.2.3. Water Balance

SL NO	HEAD	UNIT	QUANTITY
1	AVERAGE DAILY OCCUPANTS	NO	3200
2	AVERAGE DAILY VISITORS	NO	32
3	WATER REQUIREMENT FOR OCCUPANTS	LPD	48000
4	WATER REQUIREMENT FOR VISITORS	LPD	320
5	TOTAL WATER REQUIREMENT	LPA	9664000
6	INHOUSE WATER SOURCE	LPD	3500000
7	OUTSOURCED WATER	LPD	5000000
8	HARVESTED RAIN WATER	LPA	1080000
9	SURPLUS/SHORTFALL WATER	LPA	84000

**Note:**

As per data provided by college





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 5.3. Atmosphere

Sr. No.	BUILDING	LOCATION	Illumination		Temperature		Humidity		Noise level	
			LUX	OK	°C	OK	%	OK	db	OK
1	GROUND FLOOR	INDOOR	150	OK	31.2	OK	52	OK	36	OK
2	GROUND FLOOR	OUTDOOR	155	OK	31.5	OK	51	OK	38	OK
3	FIRST FLOOR	INDOOR	165	OK	31.8	OK	55	OK	34	OK
4	FIRST FLOOR	OUTDOOR	175	OK	32.1	OK	52	OK	35	OK
5	SECOND FLOOR	INDOOR	160	OK	32.2	OK	51	OK	32	OK
6	SECOND FLOOR	OUTDOOR	180	OK	32.8	OK	50	OK	33	OK

### 5.4. Wastage Management

- Do the premises generate wastage?  
YES-Minor
- What type of wastage and quantity is generated? What are actions taken on it?

Sr. No.	Wastage Type	Quantity	Action
1.	Biomass	NA	NA
2.	Paper	Non- Quantified	Dispose Through Third Party
3.	Water	Non- Quantified	NA
4.	E-Waste	Non- Quantified	Dispose Through Third Party
5.	Bio-Hazardous	NA	NA
6.	Fuel	NA	NA
7.	Production	NA	NA
8.	Process	NA	NA
9.	Food	NA	NA
10.	Man-Hours	NA	NA

### 3. Recycling Procedures

- Does Premises users aware about Recycle or Re-use of resources used?  
**NO**
- Does institute run wastage and recycling awareness campaign for users?  
YES Periodical seminars
- Does institute have SOP for wastage and recycling procedures?  
**NO**
- Does Premises Recycle or Re-use resources used?  
YES Composting

### 4. Wastage Recovery & Conservation

- Any Energy conservation method applied?  
YES LED LIGHTS
- Any SOP on operation and maintenance is defined?  
**NO**
- Any Energy conservation devices installed?  
**NO**
- Any alternative Energy source is installed?  
YES SPV GCRT

Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)

Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning

Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.

[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 71





## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

- e. Does the SWITCH OFF Drills conducted regularly?  
NO
- f. Are electronic and smart devices run on power saving mode? (computers, Etc)  
YES
- g. Does electronic & other equipment run standby mode? How many hours?  
NO, Unnecessary energy / power consumption is prohibited.
- h. Does institute perform Water quality monitoring?  
NO
- i. Have you installed rain water harvesting system?  
YES
- j. Any SOP on operation and maintenance of plumbing system is defined?  
NO
- k. Any SOP on Water utilization is defined?  
NO
- l. Does institute record water usage?  
NO
- m. Are rooms well ventilated?  
YES
- n. Does institute perform Air quality monitoring?  
NO
- o. Any vehicles used? Type of Fuel? Quantity of fuel consumed?  
NO
- p. Any third-party agreements for
  - i. E-waste Pick-up agreements  
NO
  - ii. Paper waste Pick-up agreements  
NO
  - iii. Bio hazardous waste Pick-up agreements.  
NA
  - iv. Chemical Pick-up agreements  
NO



## SAUR ENGINEERS & CONSULTANTS PVT. LTD.

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### 5.5. Carbon Footprint

#### 5.5.1. Emission

Impact		
Electricity Consumption	217934	KWh
Co2 Generated	239727	Kg

#### 5.5.2. Sequestration

SL No	Method	Quantity	Saving
1	Plantation Trees	229	5028.84
2	Recycling Papers	0	0
3	Solar	100000	110000
	<b>TOTAL</b>		<b>115028.8</b>

#### 5.5.3. Observations

Carbon Footprint of Institute is 68.50 per person

Carbon Sequestration of Institute is 32.86 per person

#### 5.5.4. Recommendations

Carbon Sequestration is observed Very Less than sufficient.

Increase Green Measures.

**No Record prepared and preserved by the college for 2022-23**



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **6. Recommendations**

#### **PART A GENERAL**

1. It is recommended that institute shall prepare and maintain Emergency evacuation Plan has to be prepared, preserved and made aware to occupants..
2. It is recommended that institute shall prepare and maintain Electrical SLD.
3. It is recommended that institute shall prepare and maintain Details Electrical Control Panels.
4. It is recommended that institute shall prepare and maintain Details of Transformer.
5. It is recommended that institute shall prepare and maintain Details of Generator (DG-Set).
6. It is recommended that institute shall prepare and maintain Details of UPS/Inverters
7. It is recommended that institute shall prepare and maintain Details of Renewable systems (Solar)
8. It is recommended that institute shall prepare and maintain Registers of Records
9. It is recommended that institute shall prepare and maintain Nameplate Data of all equipment
10. It is recommended that institute shall prepare and maintain Manuals of all equipment
11. It is recommended that institute shall preserve Electricity, Water and other utility bills.
12. It is recommended that institute shall prepare and maintain Log of Electrical works/accidents
13. It is recommended that institute shall provide safety equipments like Gloves, Shoes, Etc. for the workers.
14. It is recommended that institute to assign anybody responsible to maintain data regarding audits, management and recommendations since It is found that institute is lagging in data keeping.
15. It is recommended that institute shall undergo Energy and Green Audit Every two years.



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **PART B ENERGY AUDIT**

1. It is recommended that to reduce contract demand; Expected Rs 3,00,000 to 3,50,000 annual saving.
2. It is recommended that to install ASVG system for power factor correction; Expected Rs 1,50,000 to 1,75,000 annual saving.
3. It is recommended that to prepare feasibility and plant to replace regular fans with BLDC fans. Expected Rs 1,00,000 to 1,25,000 annual saving.
4. It is recommended that to prepare feasibility and plant to replace regular FTLs with LED Lights. Expected Rs 1,00,000 to 1,25,000 annual saving.
5. It is recommended that to undergo detail energy audit considering following points
  - a. All the connected loads in each room has to be listed down
  - b. All rooms working time has to be noted down.
  - c. Any extra activity such as program/function/gathering, Etc. has to be recorded in terms of connected load, extra load, running time.
  - d. Extra consumption in particular month and reason for the same.
  - e. Manual and remote monitoring of consumption.
6. It is recommended that data of Renewable Energy source installed and it's impact on consumption is to be observe, record and maintain either manually or automatically. Also the details of installed system to be procured from vendor and preserved.
7. It is recommended that Keep AC temperature to 26<sup>0</sup> C.
8. It is recommended that to Clean Luminaries, Fans, ACs regularly to increase efficiency.
9. It is recommended that Prepare and observe SOPs for maintenance of equipments.
10. It is recommended that Following tests are to be conducted at-least annually
  - Neutral Current
  - Load Unbalance
  - Earth Resistance
  - Insulation Resistance
  - Illumination
  - Power Quality
  - Thermography

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)**

**Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 75**



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **PART C GREEN AUDIT**

1. It is recommended that institute shall use environment friendly cleaning agents to clean the premises.
2. It is recommended that Institute may implement biogas plant from sewage waste.
3. It is recommended that Institute practices waste management but efforts are scattered, institute shall implement Target oriented waste management system.
4. It is recommended that Institute should participate in events/schemes like Swachh Bharat for awareness and importance of cleaning.
5. It is recommended that Institute to use kitchen waste water for gardening.
6. It is recommended that Institute to install waste water recycling plant.
7. Institute shall calculate and install Additional Rain water Harvesting Plant of maximum possible capacity with help of Professionals.
8. It is recommended that Institute to install Energy & environment monitoring systems
9. It is recommended that institute shall implement Target oriented Energy management system.
10. It is recommended that institute shall implement Sensor based lights in passage.
11. It is recommended that institute shall have available Medical officer or to be empanelled nearby physician for emergency support.
12. It is recommended that institute shall undertake electrical safety Audit.
13. It is recommended that institute shall Print, Stick and maintain Save energy and Save water Posters at prime locations, near point of supplies, backside of the door, etc to create awareness of conservation, within the campus.
14. It is recommended that institute shall Prepare Stick and maintain Emergency contact number list consisting numbers of all local authorities such as Police, Fire service, Hospitals, Etc. as well as principal and other welfare team members.
15. It is recommended that institute shall designate people and they shall undergo Disaster Management Training.
16. It is recommended that Avoid Draft printing, use email/Whatsapp maximum.
17. It is recommended that institute shall prepare observe and undergo Code of conducts and Standard Operating Procedures for Energy, Green and Environment management system.
18. It is recommended that institute shall arrange Exhibitions and identification programs for students and locals to understand medicinal plants.
19. It is recommended that institute shall start a planting drive with students outside campus.
20. It is recommended that institute shall gift small plants or seeds/seed-balls to students leaving or going to native place and encourage them to plant at their own premises.

**Energy, Electrical & safety Audits | Solar and Electric Consultation | Power Management by IOT  
Solar Rooftop EPC | New Electric Connections| Meters (New, Shifting, additional)  
Load Management | Electrical Installation & Maintenance| Permissions, approvals, liasoning**

**Plot No. 108 / D - 8, Akshay Co. op. Society, Gorai- 1, Borivali (W), Mumbai-400092.**

**[saurengineers@gmail.com](mailto:saurengineers@gmail.com) 9168402909/9867499812/9821116443.....Page | 76**



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor "CLASS-A" -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **PART D ENVIRONMENT AUDIT**

- i. It is recommended that institute shall plant and Maintain at-least 2 Full grown trees per two people or 5600 Trees.
- ii. It is recommended that institute shall consider the scope to increase in Tree diversity; Plants like Tulsi, Camphora, Etc. can be planted for getting more pollution-free atmosphere. Also to increase the quality more greenery can be implemented. This can be done through gardening in empty places, terrace gardening and Green walls.
- iii. It is recommended that institute shall observe Quality from Filter output. To maintain the quality, water testing has to be done in every season (after every four months). A standard operating process has to be defined, documented and observed for tank and pipeline cleaning and maintenance.
- iv. It is recommended that institute shall quantify the output of Rain Water Harvesting System and increase the capacity to mitigate shortfall.
- v. It is recommended that institute shall Install Meters to measure actual demand and usage of water.
- vi. It is recommended that institute shall install RO based water filter/purifiers.
- vii. It is recommended that institute shall maintain accurate level, windows to be cleaned regularly, obstacles on windows to be moved, Proper capacity and efficiency of luminaries to be used and luminaries also to be cleaned once in a week.
- viii. It is recommended that institute shall make a MOU with E-waste recycling institute to recycle E-waste.
- ix. It is recommended that institute shall make a MOU with Paper waste recycling institute to recycle Paper waste.
- x. It is recommended that institute shall measure and record wastage Data for all types of wastage generated.
- xi. It is recommended that institute shall Prepare, maintain and follow SOP for wastage and recycling.
- xii. It is recommended that institute shall Prepare, maintain and follow SOP for all types of maintenance.



## **SAUR ENGINEERS & CONSULTANTS PVT. LTD.**

Registered Energy Auditor “CLASS-A” -MEDA, Govt. of Maharashtra, Licensed Electrical Contractor - IE&L Govt. of Maharashtra, Registered Electrical Contractor CLASS-A, ISO 14001:2015, Certified Solar Grid Engineers NISE-MNRE, Govt. of India.

### **7. Disclaimer**

The report is generated from data, information, answer to asked questions, standards and procedures defined by different and concerned authorities time to time, available site condition, weather condition, operational and availability conditions provided by beneficiary on the day of survey. If any changes on above said measures on any other parameters affecting these measures may lead to change, alter, in-corrections even falsifying calculations, results, recommendations and suggestions. The values, figures, amounts mentioned are indicative to the site situation and condition; it may not reflect each and every aspect of it. The report is generated restricted to given scope and available conditions and measures.

### **8. Conclusion**

We hereby conclude report for “Energy Audit, Green Audit and Environment Audit” of the Work done under scope of work for “Govt. M.H. College of H. Sc. & Sc. for Women (Autonomous) Jabalpur, Madhya Pradesh” Please study it thoroughly and implement recommendations and suggestions at earliest.

GOVT. M.H. COLLEGE OF H. SC. & SC. FOR WOMEN (AUTO), JABALPUR

# ANNEXURE-I

---

## DETAILS OF INFRASTRUCTURE

**Dr. Girish Verma & Team**



**E-WASTE COLLECTION BOX:**

E-Waste can be described as consumer and business electronic equipment that is near or at the end of its useful life. This makes up about 5% of all municipal solid waste worldwide but is much more hazardous than other waste because electronic components contain cadmium, lead, mercury, and polychlorinated biphenyls (PCBs) that can damage human health and the environment.

**DRY-WASTE COLLECTION BOX:****WET-WASTE COLLECTION BOX:****PAPER-WASTE COLLECTION BOX:**

The recycling of paper is the process by which waste paper is turned into new paper products. It has a number of important benefits: It saves waste paper from occupying homes of people and producing methane as it breaks down. Because paper fibre contains carbon (originally absorbed by the tree from which it was produced), recycling keeps the carbon locked up for longer and out of the atmosphere. Around two-thirds of all paper products in the US are now recovered and recycled, although it does not all become new paper. After repeated processing the fibres become too short for the production of new paper, which is why virgin fibre (from sustainably farmed trees) is frequently added to the pulp recipe.

### SOLAR ENERGY:

Solar energy is radiant light and heat from the Sun that is harnessed using a range of technologies such as solar power to generate electricity, solar thermal energy (including solar water heating), and solar architecture. It is an essential source of renewable energy, and its technologies are broadly characterized as either passive solar or active solar depending on how they capture and distribute solar energy or convert it into solar power. Active solar techniques include the use of photovoltaic systems, concentrated solar power, and solar water heating to harness the energy. Passive solar techniques include orienting a building to the Sun, selecting materials with favorable thermal mass or light-dispersing properties, and designing spaces that naturally circulate air.



Sr. No.	Description	Unit
1	Capacity of Solar Rooftop	80 KW
2	Average Daily Generation	320 Kwh
3	Average 20% Generation to Grid through Net Meter	64 Kwh
4	Real Time Daily Consumption from Solar Rooftop System	256 Kwh/day
5	Yearly Units Consumption from Solar System (256 X 365Days)	93440 Units
Total Yearly Unit Consumption = (Units Consumed From MPMKVVCL + Solar Roof Top System) = (193738 + 93440) = 287178 Units		

### LED LIGHTS:

Light Emitting Diodes (LEDs) are used to illuminate objects and places. They have many advantages over traditional bulbs, including:

- Energy efficiency
- Temperature
- Durability
- Environmental impact
- Dimming



### GREENARY:

Reviews periodically the list of trees planted in the garden, allot numbers to the trees and keep records. Give scientific names of the trees. Promote environmental awareness as a part of course work in various curricular areas, independent research projects and community service. Create awareness of environmental sustainability and takes actions to ensure environmental sustainability. 'The Green Campus' that actively promote the various projects for the environment protection and sustainability. The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology include: preparation and tilling up of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations- It works on the several facets of Green Campus' including Water Conservation, Tree Plantation. Waste Management, Paperless Work. Alternative Energy and Mapping of Biodiversity with this in mind, the specific objectives of the audit are to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the Departments are in compliance with the applicable regulations policies and standards. It can make a tremendous impact on student health and learning college operational costs and the environment. The criteria, methods and recommendations used in the audit were based on the identified risks.



## PLANTATION: (TREES AND PLANTS IN CAMPUS)



## RAIN WATER HARVESTING:



Use of polythene is strictly prohibited in the college campus

College campus has been declared Plastic free. At present, 15 water harvesting pits has been constructed in the college campus. A total of 97 plant species has been identified in the campus. College campus is full of greenery which provides a healthy environment to the students.

### **COMPOSTING:**



The institute has adopted vermin-culture composting in hostel & garden on 300 sq.ft. land. The main purpose of this is to reduce disposable waste in the college campus. After complete process of vermin-composting, it is used as manure in the garden and lawns. Awareness program among farmers is also conducted in the village nearby by NSS Units.

### **CLEANING:**







## HEALTH/MEDICAL FACILITIES



## WATER RESOURCES



## RO/ WATER

Reverse osmosis (RO) is a water purification process that removes ions, unwanted molecules and larger particles from drinking water using a partially permeable membrane. As a result, the solute is kept on the membrane's pressurized side and the pure solvent is allowed to pass to the other side.







IQAC Cluster  
Reg No. MAH/236/2021/PUNE

# Internal Quality Assurance Cell Cluster Gender Audit CERTIFICATE

Date of Visit:  
13/05/2024

Date of Issue:  
14/05/2024

Certificate ID: WI6427

Being Awarded To

*Govt. M. H College of Science & Home Science, Jabalpur*

As per NAAC Gender equity and Sensitization guidelines the Gender Audit was administered by IQAC Cluster's Gender Cell

FOR THE YEAR 2022-23 & 2023-24

Valid Till: 13/05/2025

Dr. Ayub Shaikh  
Co-ordinator, Audit Cell, IQAC Cluster



Mr. Peeyush Pahade  
President, IQAC Cluster





## GENDER AUDIT

Conducted by

**IQAC CLUSTER INDIA**

(Reg.No.MAH/236/2021/PUNE)

**FOR GOVT. M.H. COLLEGE OF SCIENCE AND HOME SCIENCE  
JABALPUR\_(AUTO.) COLLEGE (M.P)**

The Gender Audit Committee visited College/ University on:

Day: Monday	Date: 13/05/2024	Time: 10 p.m
-------------	------------------	--------------

The External Peer committee members for Gender Audit appointed by IQAC Cluster India are:

No	Name	Designation	Address	Signature
1.	Dr. Amelia Antony	Chairman	Principal, St. Paul College, Associate Member IQAC Cluster	
2.	Dr. Ayub Shaikh	Member	ICS College, Khed Coordinator Audit Cell, IQAC Cluster, Chairman, AAA Audit	

Authorities of the organization who interacted with the Gender Audit team are:

No	Name	Designation	Address	Signature
1.	Prof. R.K. Mishra	Management representative	Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur, M. P.	
2.	Dr. Nandita Sarkar	Principal	Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur, M. P.	
3.	1.All HOD 2.Exam Controller 3. IQAC	CDC member	Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur, M. P.	
4.	Dr.B.K. Singh	IQAC In charge	Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur, M. P.	
5.	Jagdish Sen	Registrar or equivalent	Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur, M. P.	
6.	Dr.N.L. Patel	Teacher representative	Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur, M. P.	

The Gender Audit report has been submitted by IQAC Cluster India on: 13-05-2024

Chairman of Committee.

**CHAIRMAN**  
Audit Team IQAC CLUSTER  
Pune



Principal



# AAA and Gender Audit

## Visit Schedule

Govt. M II College of II.Sc and Sc for Women, Jabalpur

Date- 13/05/2024: 9:30 A.M.

Sr.NO.	Activity	Time
I	<b>Interactions Part-1</b> 1) Principal 2) Chairman, G.C. 3) Chairman, CDC. 4) IQAC 5) Registrar 6) Head of Departments.	9:30 A.M. To 10:30 A.M.
II	<b>Interactions part-2</b> 7) WDC 8) Women employee 9) Mandatory cells and committees. 10) Best practices and Institutional distinctiveness.	10:30 A.M. To 11:30 A.M.
III	<b>Visits</b> 1) Women's facilities 2) Academic departments (25%)(Verification of departmental documents). 3) ICT Infrastructure 4) Research Center 5) Library-ICT 6) Examination department. 7) NSS and NCC. 8) Facilities and infrastructure for physical disable. 9) Waste management system. 10) Sports and cultural.	11:30 A.M. To 1:00 P.M.
IV	<b>Lunch</b>	1:00 P.M. To 2:00 P.M.
V	<b>Document verifications</b>	2:00 P.M.

MEMBER  
Audit Team IQAC CLUSTER  
Pune

CHAIRMAN  
Audit Team IQAC CLUSTER  
Pune



	<p>1) IQAC Documentation.  2) Students redressal, Ant ragging and Internal complaint cell.  3) e- governance  4) PO,PSO,CO Attainment  5) Policy documents.  6) Purchase committee.  7) Teachers Diary  8) Welfare scheme  9) Students placement data and documents.  10) Licensed software  11) Administrative office</p> <p><b>Documents:</b>  ( Students admission records, scholarship, Grants and funding, Appointment, promotion and retirement records ,Service books, Salary records, financial audit reports etc.)</p>	<p>To  3:30 P.M.</p>
VI	Report writing.	3:30 P.M. To 4:30 P.M.
VII	Exit meeting	4:30 P.M. To 5:00 P.M.

*Amelias*

**CHAIRMAN**  
**Audit Team IQAC CLUSTER**  
**Pune**



*[Signature]*

**MEMBER**  
**Audit Team IQAC CLUSTER**  
**Pune**

**Section I: Basic Details of the Organization:**

<b>I</b>	<b>Name of the Trust/ Society</b>  Address  Phone no:  E-mail  Year of Establishment:	-
<b>II</b>	<b>Name of the College/ Institute:</b>	Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur, M. P.
	<b>Address:</b>	Napier Town , Jabalpur
	<b>Year of Establishment</b>	1954
	<b>Authority Name&amp; phone No.:</b>	Dr. Nandita Sarkar  0761-2407326
	<b>Coordinators name &amp; Phone no</b>	Prof. R.K. Mishra  9977000913
	<b>Contact Details:</b>  1. Telephone no with STD code  2. Fax no:  3. Mobile no of the organization  4. Organizational email:  5. Website address:	0761-2407326  0761-4005716  9977000913  <a href="mailto:principal@gmhcollege.nic.in">principal@gmhcollege.nic.in</a>  <a href="http://www.gmhcollege.org.in">www.gmhcollege.org.in</a>

<b>III.</b>	<b>Institutional Status</b>  1. Affiliating University:  2. Affiliation Status:  3. UGC Approval  4. Financial Status:	Temporary  Yes  Yes  Govt. College
<b>IV.</b>	<b>Type of College:</b>	a) Autonomous  b) Women's College  c) Urban
<b>V.</b>	<b>Type of Faculty/Programme</b>	Multi faculty/ Home Science and  Science
<b>VI.</b>	<b>Special status conferred</b>  <b>UGC-Special Assistance Programme</b>	UGC  UGC-CPE



## Gender Audit Format for College



### Part I

#### Organization Information on gender Aspects

(Brief precise information needed. Please use charts/ bullet points/ in shorts for description.)

#### Governance Bodies, Key Actors & Decision makers:

1. Gender Ratio & category wise data of students, teaching, nonteaching faculty. (*Data of last TWO completed Academic years*).

	Teaching	Non-teaching	students	Total
<b>Academic Year 1</b>	<b>2022-23</b>			
Male	14	38	0	52
Female	102	33	3132	3267
Others	0	0	0	0
<b>Academic Year 2</b>	<b>2023-24</b>			
Male	17	38	0	55
Female	82	32	3295	3409
Others	0	0	0	0

2. Whether banners about respect of all genders is showcased on campus on website and in prospectus?

Location of the banners/ boards	Main gate/ entrance/ prime location/ notice board/ library/ canteen/ departments/ washrooms/ website/ prospectus/reading room.	
Viewership of the banners/ boards (possible % viewership each day)	No of banners with prime location (viewership 100%):	yes
	No of Banners at other locations (viewership: 60 to 80%)	yes
Year of posting the banners/ boards.	yes	
Banner link on college website	yes	

3. Gender ratio of management staff (Principal/ Vice Principal/ In charges/ office in-charge and governing body).

	Governing / Apex body	Principal/ Vice Principals/ In charges/ Heads of Department/ IQAC incharge	Office/ Admin incharge/ Accounts head/ other office authority	Total
<b>Academic Year 1</b>	<b>2022-23</b>			
Male	03	02	25	30
Female	05	10	16	31
Others	0	0	0	0
<b>Academic Year 2</b>	<b>2023-24</b>			
Male	03	02	25	30
Female	05	10	16	31
Others	0	0	0	0

4. Student council representation Gender wise:

Year	Male	Female	Other
<b>Academic Year 1 2022-23</b>	0	07	0
<b>Academic Year 2 2023-24</b>	0	07	0

5. No of single parent children and their genders (details of the last two completed Academic years to be given).

No of students with mother as single parent	50
No of students with father as single parent	45
No of students with neither parent	35
Students who have lost their one/ both parents in Covid.	20
Total number of such students	150

6. Gender Policy on website.

Gender Policy Link:	<a href="http://www.gmhcollege.org.in/AQAR/gender%20policy%20college.pdf">http://www.gmhcollege.org.in/AQAR/gender%20policy%20college.pdf</a>
---------------------	---



**Government M. H. College of Home Science & Science for Women,  
Autonomous, Jabalpur**

**Gender policy**

**Government M. H. College of Home Science & Science for Women, Autonomous, Jabalpur** has its Gender policy. Ours institution is the most preferred institute for girls. Girls from Jabalpur city and different other parts of country take admission to our college. Our institution works towards the overall development of students. Our institution has developed safe, secure and organized learning environment for girls.

The Gender policy is integral part of all institutional policies and programmes. Gender equality and equity aims at ensuring both women and men including staff and students are considered equal and treated equally in terms of dignity and rights. It aims to empower the girl students. The atmosphere in the college is such that there is not any kind of discrimination particularly based on sex. The Gender policy provides guidelines and frameworks for promoting gender equality. The institute raises awareness regarding gender sensitization by organizing various events. The college has formed the Women Empowerment cell, Grievance Redressal cell. The Gender Equity Policy in the college provides a framework of principles and practices that will improve the opportunities to all the students regardless of whether they are males or females. The Gender Equity Policy has been developed so that no students in the college campus are disadvantaged on the basis of gender.

The Indian constitution provides equality before law for women under Article 14. The Article 15 prohibits discrimination on the grounds of religion, race, caste, sex, place of birth. Framing a Gender policy is a commitment towards our Indian Constitution. The overall effort is to promote gender equality within the institution and to strengthen the gender sensitivity among students and staff. The institution is taking conscious and continuous efforts to maintain a balanced and equal environment.

**Objectives:**

- To provide equal opportunities to both female students and male/female staff members & to create conducive environment for women and men at work place.
- To create awareness amongst the students and staffs members about their social, cultural, economic, political and institutional rights.
- To empower the girls with healthcare, physical, moral, cultural and skill development of students.

*Harshu*

*upload on Website  
Harshu*

7. Internal Complaints Committee & Vishakha committee (objectives and composition, meeting minutes).





Adobe Acrobat Document



Adobe Acrobat Document



Adobe Acrobat Document

- Number and nature of cases received (brief description) (names not expected)

File name, file no.( <i>Composition, Minutes of meeting, Cases received and resolved, awareness programs</i> )	GE232407
Link of the committee details on website:	<a href="http://www.gmhcollege.org.in/AQAR/internal%20complaint%20committee%20.pdf">http://www.gmhcollege.org.in/AQAR/internal%20complaint%20committee%20.pdf</a>

8. Sexual harassment act 2013 copy and UGC regulations for sexual harassment are available with the college for reference.

File name, file no :	GE232407
Link of act hosted on College website:	<a href="http://www.gmhcollege.org.in/AQAR/anti%20sexual%20harrasment%20policy.pdf">http://www.gmhcollege.org.in/AQAR/anti%20sexual%20harrasment%20policy.pdf</a>



Adobe Acrobat Document



Adobe Acrobat Document

9. The grievance redressal cell has a time bound action program displayed on the website. **(Data of last two completed Academic years needed)**

- File with details of authority name, position, phone numbers, grievance policy, minutes of the meetings.)**FILE NUMBER- GE232407**
- Link of above details on the website... **PASTE LINK-**  
<http://www.gmhcollege.org.in/AQAR/grievance%20redressal%20cell.pdf>

- Grievance redressal policy on the website...**PASTE LINK-**  
<http://www.gmhcollege.org.in/AQAR/grievance%20redressal%20cell.pdf>



Adobe Acrobat  
Document










**Part A: Standard grievances:**







No.	Type of grievance	Duration of redressal	Authority of responsibility for the grievance.
	*copies attached		

**Part B: Specific grievances and action taken (not to be showcased on the website).**

10. Gender sensitization plan and nature of activities included as per the plan (Last two years work to be showcased year wise).

S.N.	Name of Activity	Nature of the activity	Date, day & duration	Number of participants	Link of the report and photos
1.	Gender Equality today for a sustainable tomorrow International Women's Day	Promoting gender equality/ Gender sensitization	08/03/2022	250	 Adobe Acrobat Document
2.	Women Equality Day Program	Promoting gender equality/ Gender sensitization	26/08/2022	230	 Adobe Acrobat Document
3.	Awareness Programme on Beti Bachao- Beti Padao	Promoting gender equality/ Gender sensitization	08/02/2023	300	 Adobe Acrobat Document
4.	National Education Policy	Promoting gender equality/ Gender	26/07/2023	60	 Adobe Acrobat Document

		sensitization			
5.	Breast feeding week program	Promoting gender equality/ Gender sensitization	04/08/2023	150	 Adobe Acrobat Document
6.	Awareness Program	Promoting gender equality/ Gender sensitization	17/08/2023	150	 Adobe Acrobat Document
7.	National Webinar on YOGA	Promoting gender equality/ Gender sensitization	23/08/2023	175	 Adobe Acrobat Document
8.	National Webinar on YOGA	Promoting gender equality/ Gender sensitization	23/08/2023	210	 Adobe Acrobat Document
9.	Demonstration of Machine	Promoting gender equality/ Gender sensitization	25/09/2023	25	 Adobe Acrobat Document
10.	Sikho Kamao Yojana	Promoting gender equality/ Gender sensitization	04/11/2023	105	 Adobe Acrobat Document
11.	World Health Day Theme-“ My Health My Sight”	Promoting gender health and wellness	09/12/2023	250	 Adobe Acrobat Document
	Eye checkup camp by centre for sight			230	 Adobe Acrobat Document
12.	Health Awareness Program	Promoting gender equality/	05/01/2024	200	 Adobe Acrobat Document

		Gender sensitization			
13.	Cyber Security awareness training Programme		05/01/2024	135	 Adobe Acrobat Document
14.	Awareness Activity in Health and Hygiene	Promoting gender equality/ Gender sensitization	08/01/2024	140	 Adobe Acrobat Document
15.	Beti Bachao, Peti Padao	Promoting gender equality/ Gender sensitization	08/01/2024	200	 Adobe Acrobat Document
16.	National Education Policy	Promoting gender equality/ Gender sensitization	08/01/2024	82	 Adobe Acrobat Document
17.	National girl Child Day	Promoting gender equality/ Gender sensitization	24/01/2024	250	 Adobe Acrobat Document
18.	Six Days Faculty Development Program On Computer Skill for teaching staff	Promoting gender equality/ Gender sensitization	01 to 08 May 2024	60	 Adobe Acrobat Document

11. Facilities provided to genders:(at least 4)**YES/NO**

*(verified by Auditor during physical visit)*

- Rest rooms- **Yes**
- Medical facilities- **Yes**
- Gender counseling- **Yes**
- Separate washrooms- **Yes**

- Women’s washrooms with sanitary pad dispensers and sanitary pad incinerators- **Yes**
- Separate dining spaces for women in canteen- **Yes**

12. Safety features provided for genders. **YES/NO**  
*(verified by Auditor during physical visit)*

- Male and female guards at gate- **Yes**
- CCTV cameras- **Yes**
- Counselling /Counselor appointed- **Yes**
- Any other.

13. Gender based participation in NSS/NCC/ Sports/Cultural.(Last two years)

No	Activity	Male participants	Female participants
	NSS	0	400
	NCC	0	214
	Sport	0	306
	Cultural	0	126

(Though only numbers has been mentioned here the file must showcase the details of students during the visit/ showcase it on the website. A two year data for average necessary.)...**FILE NUMBER---** GE232407**---**

14. Initiatives taken for gender equity (make a list): list attached

Male:

Female:

Others:



Adobe Acrobat  
Document

15. The duties of the employer are available with the organization as per the UGC act 2013.....**FILE NUMBER--** GE232407

**DUTIES OF THE EMPLOYER**

**Introduction**

It is important to give employees a secure and pleasant atmosphere where they do not feel threatened or intimidated because they spend more time at work than at home. Numerous things, including workplace discrimination, a hostile work environment, a lack of a code of behaviour, and sexual harassment by coworkers or the company, can

make an employee feel uneasy. Under the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act of 2013, an employer must create a safe workplace for women employees and act quickly to record and address any complaints of sexual harassment at work. Under India's POSH rules, employers are also held accountable for various additional duties.

An employer's responsibilities include these:

The workplace or branch where at least ten employees are employed must have an internal complaints committee (ICC) for a company to do so. Every office or branch of the business with ten or more workers requires the Employer to set up an ICC. Even if there are currently no women working at the institution, an ICC must be established.

Implementing a well-written POSH Policy: The Employer is required to execute a well-written, specifically tailored anti-sexual harassment policy that was created by Indian employment and labour lawyer with expertise. Copying and pasting a policy or using one of the online POSH template policies would not be effective as these policies do not adhere to the guidelines established by the 2013 Prevention of Sexual Harassment Act.

To see sexual harassment as improper behaviour: Any incidence of sexual harassment must be handled as misbehaviour, according to the Anti-Sexual Harassment Act. Sexual harassment must be explicitly defined as misbehaviour in all employment agreements, service rules, policies, and standing orders. The consequences of sexual harassment must also be made very apparent, including salary deductions, job termination, further fines, etc.

The order of the Internal Complaints Committee and the criminal penalties for sexual harassment must be shown by the Employer in a prominent location at the place of employment, respectively.

To educate staff members about workplace sexual harassment: All companies must inform and sensitize workers to the problem of sexual harassment. To educate the workforce on workplace sexual harassment, the companies must provide seminars and hold workshops.

The following actions are mandated by Central Government regulations under the Sexual Harassment Act on the part of the Employer:

Distribute the POSH workplace sexual harassment policy

Conduct orientation programmes for the Internal Complaints Committee's members

Conduct seminars to help ICC members develop their abilities and skills.

Organize seminars and awareness campaigns with women's organizations, Panchayati raj, local authorities, etc.



Include the ICC members names and contact information in the Prevention of Sexual Harassment (POSH) Policy.

To prepare the Annual Report: Companies, organizations, and trusts are expected to provide an annual report detailing the sexual harassment claims they have received and where they stand at the time. The Registrar of Companies must receive this yearly report from all Indian corporations; the Charity Commissioner or Registrar of Organizations must get it from all societies and trusts. However, sole proprietorships, partnership businesses, and LLPs must advise the District Officer designated under the POSH Act 2013 of the sexual harassment complaints filed with the organization and their current status rather than submitting this yearly report

To support the employee in reporting a sexual harassment occurrence, the Employer must also help the employee file a complaint against the alleged harasser and assist her in pursuing legal action, including a criminal sanction. If the female Employer chooses, the Employer may also decide to file a complaint against the alleged offender.

It has been determined that sexual harassment violates constitutional rights such as the right to equality, dignity, and personal liberty. Any organization's bosses have a critical role in eliminating even the tiniest instances of sexual harassment and guaranteeing a safe environment for female employees. The POSH programme only establishes the minimal requirements for protecting female employees from workplace sexual harassment, the rest is up to the employers to uphold their obligations and prevent women from being encouraged to use the #MeToo hashtag.

Every business with more than ten workers is required under the Sexual Harassment of Women at the Workplace (Prevention, Prohibition, and Redressal) Act of 2013 to establish a sexually harassment-free office that also ensures the safety of visitors to the workplace. The Act outlines the following as employers' responsibilities for preventing and outlawing occurrences of sexual harassment at work:

1: Establishing a Specific Sexual Harassment Policy and Disseminating It to All of Its Employees:

Since the Act went into effect, all companies with more than ten workers are required to establish a distinct POSH law (Prevention of Sexual Harassment) policy and to distribute the same to all of their current employees and all new hires as part of their orientation into the firm.

2: Change Its Service Rules

To comply with the Act's requirements, all employers must make specific changes to their current service rules. Several suggested adjustments include:

to define the means or actions that may be taken to stop such misconduct,

Define the repercussions of making a false complaint, and

Include sexual harassment as chargeable misbehaviour under the service standards.

3: Constitute an Internal Committee (IC).

The business must establish an IC at every branch with more than ten employees, not merely at the head or regional office, with a woman serving as its presiding member. The IC should have at least one external member and most female members. Many organizations do not have the external committee members required by the Act on their ICs. This violation puts the IC's impartiality and objectivity in grave danger and invites accusations of prejudice and injustice about the IC's members and procedures.

4: Display the Policy -

The Employer is also obligated to post the separate POSH law policy in visible locations in the workplace, together with information about the repercussions of sexual harassment when it has been developed and distributed to the workforce. Employers must also prominently display the members of the internal committee and the means of communication (email, etc.) for anybody who feels they have been wronged.

5: Regularly Hold Awareness Sessions-

The Act requires all employers to regularly hold seminars and programmes to make all their staff aware of this. The government has developed suitable POSH training for employees materials that may be used to inform workers. It has provided employers with a list of qualified facilitators and trainers to lead such awareness-raising workshops.

6: Equipping the IC-

The Employer is responsible for making sure the Internal Committee receives regular training and is made aware of how to handle complaints addressed to it. To educate and upskill the IC members in this respect, the Employer must regularly undertake orientation and capacity development programmes.

7: Enabling a Fair Investigation-

According to the Act, the Employer must give the IC the tools it needs to handle complaints and conduct investigations. The Employer must provide the IC with any information from its records that the IC may need to undertake an investigation.

8: Implement IC's Suggestions -

The Employer must implement the Internal Committee's suggestion within 60 days after receiving its report. In addition, if the aggrieved

decides to file an FIR regarding the offence, the Employer will support her.

#### 9: Prepare a Detailed Annual Report -

Under the terms of this Act, the IC must submit yearly reports to the relevant authorities and the Employer that contain the following information:

the number of complaints received, the complaints that were resolved, the IC's recommendations in each case.

any cases that have been open for more than 90 days.

the reasons for the delay, any action the Employer took in response to the IC's recommendations.

number of employee and IC awareness seminars held throughout the year.

The Employer is Responsible for Ensuring the IC's Yearly Report is Submitted on Schedule.

Employers will benefit from immunity from unjustified scenarios and safer workplaces if they abide by the Act's stipulations. The first-time penalty of Rs. 50,000 is assessed for failure to comply with those mentioned earlier. In addition to possible criminal charges being brought against the Employer, the fee might treble, and the company's operating license could be revoked for persistent non-compliance.

Under the Act, Who Qualifies as an Employer?

A person in charge of managing, supervising, or controlling a workplace is referred to by the law as an employer. Management includes the person, board, or committee in charge of creating and enforcing the organization's regulations. Since sexual harassment violates the human dignity of women protected by Articles 14, 15, and 21 of the Constitution, the Employer must take disciplinary action against the offending officer. The investigation must also be fair and reasonable.

Roles of Employers Under POSH ACT 2013

The legislation has established several obligations for the Employer. These obligations start when an employer is required to establish an internal complaints committee to make sure that those who have been wronged can file complaints and seek redress for those complaints. They end when the Employer has included specific information about sexual harassment in its annual report under the law's requirements. In addition, the legislation stipulates that companies must focus on the "prevention" of sexual harassment and implement specific preventative steps in addition to treating sexual harassment as misbehaviour and taking appropriate disciplinary action.

As a result, the law has established obligations for employers, some of which are listed below.

- a) Establish a secure working environment, including protection from other people who may come into touch with you there.
- b) Display the internal committee's composition and the criminal penalties for sexual harassment in any prominent workplace.
- c) Arrange seminars, awareness campaigns, and orientation programmes for the members of the Internal Committee regularly to educate staff members on the Act's requirements.

Create and publicly distribute an internal charter, policy, resolution, or statement for the prohibition, prevention, and redress of Posh at work to promote gender-sensitive safe spaces and remove underlying causes of a hostile work environment for women.

Conduct orientation sessions and seminars for the Internal Committee members.

Implement programmes to raise employee awareness, and establish forums for discussion with Gram Sabha, women's groups, mothers' committees, teenage groups, urban local bodies, and any other entity deemed essential.

POSH training for employees: Conduct training programmes to increase the members of the internal committee's capability and expertise.

Declare each Internal Committee member's name and contact information.

Use the materials created by the State Governments to run training and awareness campaigns to familiarize the staff with the Act's requirements.

d) Give the Internal Committee the tools to handle the complaint and launch an investigation.

c) Assist in obtaining respondents' and witnesses' appearances before the Internal Committee.

1) Provide the Internal Committee with any information it might need about the complaint.

g) Assist the lady in filing a complaint concerning the offence under the Indian Penal Code if she chooses to do so.

h) Justification for bringing legal action under the Indian Penal Code or any other current legislation against the offender, or, if the victimized lady so chooses, against the perpetrator in the workplace where the sexual harassment occurred.

1) Treat sexual harassment as a violation of the service regulations and take appropriate legal action.

j) Inspect the Internal Committee's timely submission of reports.

In *Yamaguchi vs Widnall*, [1997] 109 F. 1475, the 9th US Court of Appeals held that an employer is only responsible for a coworker's sexual harassment if the Employer fails to take appropriate corrective action after being aware of the alleged conduct. These steps must involve

quick remedial action to stop the current harassment and prevent further harassment from the same offender or others.

Why Should Employers Comply With the Women Harassment Act?

An annual report must be created by the internal complaints committee established in your company and sent to the district officer and Employer each calendar year. The number of complaints made, how many were resolved, and how many seminars or awareness campaigns the organization ran to combat sexual harassment must all be mentioned in the annual report.

The organization must maintain a record of this data for the following three reasons:

(1) The number of Women Harassment claims filed and resolved must be disclosed by the Employer each year in the organization's annual report. If the Employer is exempt from preparing an annual report, he must inform district officer of the number of cases.

(2) The government may request information on Women's Harassment from any workplace. All employers must participate, and it has the authority to investigate documents and the workplace.

(3) The legislation stipulates that an employer's failure to comply with the law might result in fines of up to Rs. 50,000 and the revocation of their business license (in case of repeat offence).

16. Any other features to be added. (make a list):

**Vision:**

To be a transformative educational institution that champions gender equity and equality by fostering an inclusive environment where all individuals, regardless of gender, have equal access to opportunities, resources, and support systems that enable their full potential.

**Mission:**

1. **Pay Equity:** Ensure fair and transparent compensation practices that eliminate gender-based wage disparities, promoting equal pay for equal work across all levels of the institution.
2. **Equal Opportunities:** Provide equal access to academic, extracurricular, and professional development opportunities, empowering every individual to achieve their goals regardless of gender.
3. **Professional Growth:** Support the continuous professional growth of all staff and students by offering mentorship, training, and career advancement programs that are free from gender bias.
4. **Healthy Work Environment:** Create and maintain a safe, respectful, and supportive work environment that prioritizes the well-being and dignity of all, fostering a culture of inclusivity and mutual respect.
5. **Inclusive Leadership:** Promote gender diversity in leadership roles by implementing policies and practices that encourage the representation of all genders in decision-making positions, ensuring a balanced and fair governance structure.

**Remark -** Government M. H. College of Home Science & Science for Women, an autonomous institution in Jabalpur, M.P., is a women's college with a student body consisting entirely of women.



## Part II

### Gender Recruitment, Career Progression and Retention:

#### A) Total recruitments done in last two years:

Year	Existing number	Teaching	Administration	Non-teaching	total
Academic Year 1	34	25 approx.	2	14 approx.	34
Academic	46	29	3	17	46



Year 2		approx.		approx.	
--------	--	---------	--	---------	--

(Details to be available in the file)....

FILE NUMBER-GE232407

**B) Gender wise Student recruitments/Placement** FILE NUMBER-GE232407

*(Last Two years data)*



**Part III: How is the Gender dimension in curriculum?**

**(A statement needed from the Principal/ Director in 500 words)**

Gender is widely acknowledged as a construct shaped by societal and cultural influences, with distinct behaviors in boys and girls molded by these practices. A significant bias pervades the educational curriculum, where STEM (Science, Technology, Engineering, and Mathematics) disciplines are frequently perceived as masculine domains, while the humanities and languages are often relegated to feminine associations. The attitudes and expectations held by individuals are pivotal in challenging and dismantling these entrenched gender role stereotypes. To cultivate a generation of proactive and responsible citizens, it is imperative to infuse the curriculum with inclusive ideas and values that empower all students, fostering a sense of confidence irrespective of gender. Recognizing and valuing the unique abilities of each gender, rather than perpetuating fallacies that designate one as inherently superior or more capable than the other, is crucial. The curriculum should serve as a mirror of societal culture, thoughtfully curated to encompass various life aspects, knowledge, attitudes, and values that warrant transmission from one generation to the next. In a progressive educational landscape, it is essential to dismantle the gendered biases that have historically influenced the perception and teaching of different subjects. STEM fields, often seen through a masculine lens, must be made accessible and appealing to all students, irrespective of gender. Concurrently, the humanities and languages, traditionally associated with femininity, should be presented as equally valuable and significant. By doing so, we can break down the barriers that hinder students from exploring their full potential based on their interests and abilities rather than conforming to societal expectations. Inclusive education necessitates a comprehensive approach that addresses the underlying stereotypes and



biases ingrained in the curriculum. Educators and policymakers must collaborate to create a learning environment where all subjects are presented in a gender-neutral manner, allowing students to make choices free from societal pressures. This involves not only revising the content but also rethinking teaching methodologies and assessment strategies to ensure they do not reinforce gender stereotypes. Furthermore, fostering an inclusive curriculum requires a commitment to continuous professional development for educators. Teachers play a crucial role in shaping students' perceptions and attitudes toward different subjects. Providing educators with the tools and training needed to recognize and counteract gender biases can significantly impact students' experiences and outcomes. By promoting a culture of inclusivity and respect, educators can help students develop a balanced view of their abilities and interests.

The impact of an inclusive curriculum extends beyond the classroom. By instilling values of equality and respect from an early age, we lay the foundation for a more equitable society. Students who are exposed to a diverse range of perspectives and encouraged to challenge stereotypes are better equipped to navigate a world that values diversity and inclusivity. They become more empathetic and understanding individuals, capable of contributing positively to their communities. In conclusion, reimagining the curriculum to reflect a balanced and inclusive portrayal of gender roles is essential for nurturing the next generation of proactive and responsible citizens. By valuing the unique abilities of each gender and eliminating biases that have long plagued educational systems, we can create a learning environment that empowers all students to achieve their full potential. This holistic approach to education not only benefits individual students but also contributes to the broader goal of fostering a more equitable and inclusive society.

#### **Part IV**

##### **Survey (Gender Equality & Gender Perspective)**

*(Student/ Teacher/ Administrative staff/ non-teaching)*

**Should be conducted by Institute before physical visit**

<b>No</b>	<b>Question</b>	<b>Agree</b>	<b>Disagree</b>
<b>1.</b>	The institution has a gender policy and is clearly visible on the website and at important places.	<b>Yes</b>	
<b>2.</b>	The admission form clearly asks about the gender of the prospective student.	<b>Yes</b>	
<b>3.</b>	The college conducts gender sensitization programs as a part of its curriculum.	<b>Yes</b>	
<b>4.</b>	The college conducts gender awareness program each year.	<b>Yes</b>	
<b>5.</b>	You are aware of the Internal Complaints Committee and Vishakha Samiti is present in the college.	<b>Yes</b>	
<b>6.</b>	The women empowerment committee is setup in the college and displayed on the college website.	<b>Yes</b>	
<b>7.</b>	Lady faculty members are appointed in the women empowerment committee	<b>Yes</b>	
<b>8.</b>	The organization takes initiatives to work out on gender related issues proactively.	<b>Yes</b>	
<b>9.</b>	The organization has a sexual harassment cell.	<b>Yes</b>	
<b>10.</b>	The organization has a grievance redressal cell. Its working is time bound.	<b>Yes</b>	
<b>11.</b>	The college has adequate security personnel and technological support/ surveillance.	<b>Yes</b>	
<b>12.</b>	Safety guards employed on the gate also have women guards	<b>Yes</b>	
<b>13.</b>	The remote areas on the campus are well protected and safe.	<b>Yes</b>	
<b>14.</b>	There is a mechanism to assess the entry of strangers on the campus.	<b>Yes</b>	
<b>15.</b>	There are adequate number of toilets on the campus for men and women.	<b>Yes</b>	
<b>16.</b>	The toilets are hygienic, clean, and well maintained.	<b>Yes</b>	
<b>17.</b>	The women's toilets have sanitary pad vending machines at convenient places.	<b>Yes</b>	
<b>18.</b>	Sanitary incinerating machinery is available in the women's washrooms. .	<b>Yes</b>	
<b>19.</b>	The classrooms / Library offers equal opportunities to all genders.	<b>Yes</b>	
<b>20.</b>	Common rooms are available to boys and girls.	<b>Yes</b>	



21.	Healthcare section of the organization takes special care in gender related illnesses.	Yes	
22.	The University/ College has an insurance for the students in case of death/ emergency?	Yes	
23.	Gender related counselling facility exists in the organization.	Yes	
24.	Transportation by the organization is safe and efficient	Yes	
25.	<p>Three suggestions by students on gender related issues of the campus:</p> <p>1. Demand for increase in the total number of sophisticated toilets for girls.</p> <p>2. To have girls common room at all floors.</p> <p>3. Availability of ATM within the campus specially for hostlers.</p>		

**Part V: Actual one to interaction with cross section of stakeholders.**

**(Conducted by Auditor during physical visit)**

**For Authorities?**

1. Facilities specific for genders. (Health, counseling, career, training, jobs)
2. Is there a counseling center in the college?
3. What are the mechanisms of Prevention of physical/ psychological/ Sexual Abuse?

4. Complaint mechanisms existing within and outside the organization?
5. Methods to improvise the working conditions of the employees in the organization
6. Workplace level policies to curb violence and exploitation?
7. Methods to protect students from outside sources
8. Methods to protect students from the people working within the organization.

**For employees:**

1. Is there any physical violence?
2. Psychological?
3. sexual violence experienced?
4. How?
5. Was it complained?
6. Was any action taken?
7. Do you think it is related to gender discrimination?
8. Leave for pregnancy is available?
9. Facilities available with the organization.
10. Is counselling available?

**For students?**

1. Are the opportunities equal for you as a boy/ girl on the campus?
2. Facilities and freedom on the campus? (In case of hostel also on hostel)
3. Were you threatened physically on the campus?
4. Is there ragging on the campus?
5. Are your complaints taken seriously by the authorities?
6. Have you availed the facility of the counseling centre in the organization
7. Gender related awareness programs are conducted by the organization?
8. Any other?

\*\*\*\*\*

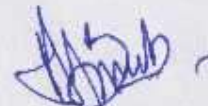
## GENDER AUDIT RECOMMENDATIONS

- 1) Composition of mandatory cell should be as per UGC guidelines and maintain the documents of minutes of meeting and activities related to internal complaint cell and sexual harrasment cell.
- 2) It is advised to have a counselling Cell to effectively help the students and teachers with their mental health issues.
- 3) Recommended to provide Gender Policy & implementation effectively.
- 4) Increase the number of awareness Program for Internal Complaint Cell and prevention against sexual harrasment are recommended for female employees and girls student.
- 5) It is Recommended to have Girl's schlorship and other welfare schemes for girls student to increase girls enrolment ratio.
- 6) Banners for internal complaint cell and prevention against sexual harrasment to be displayed at prominant places as per UGC guidelines .
- 7) It is advised to increase the number of sanitary pad dispenser and incinerator machine per floor.
- 8) Annual gender sensitisation action plan should be made well in advance for effective implementation



**Dr. Amelia Antony**  
Principal, St. Paul College Mumbai  
Associate Member  
IQAC Cluster  
Chairman, Gender Audit

**CHAIRMAN**  
Audit Team IQAC CLUSTER  
Pune



**Prof. Dr. Ayub Shaikh**  
ICS College, Khed  
Coordination Audit Cell  
IQAC Cluster  
Member, Gender Audit

**MEMBER**  
Audit Team IQAC CLUSTER  
Pune





# FIRE AUDIT



***DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY  
GOVT. M. H. COLLEGE OF HOME SCIENCE AND  
SCIENCE FOR WOMEN, JABALPUR***

**FINAL FIRE AUDIT REPORT AND SUMMARY - Hostel and college**

**From :** minimaxmegaventures@gmail.com

Thu, Mar 21, 2024 11:29 AM

**Subject :** FINAL FIRE AUDIT REPORT AND SUMMARY - Hostel and college

**To :** langdeptmhcollege@gmail.com, Govt M H Home Science Girls P G College, Jabalpur MP <hegmhsgpgcjab@mp.gov.in>, principal gmh <principal@gmhcollege.nic.in>

R/s Madam Principal,

With reference to the work allotted to me vide REF no: **2784 & 2785** i would like to inform you that we have completed the audit of your deemed college and below attached is the report to it.

Hope that you take the best action and adapt to the recommendations for the best interest of your college.

Best Regards,  
Aditya Vijay Tiwari.  
Fire Safety Officer.  
For MMPL.



**Minimax Megaventures Private Limited**  
E-7, UG-295B, Aera Colony, Bhopal | Bhopal-462039

FIRE AUDIT REPORT COLLEGE MH .pdf

FIRE AUDIT REPORT HOSTEL MH COLLEGE.pdf

Website: [www.minimaxmegaventures.com](http://www.minimaxmegaventures.com)  
Corporate Identity Number: U92240MP2013PTC030997

*NACC Incharge  
Dr Girish Varma.  
Hanku  
21/03/2024*

*Shri R. K. Mishra*



*Prashant  
21/3/24*

## AUDIT REPORT

**ANNUAL THIRD PARTY FIRE SAFETY INSPECTION  
OF  
"GOVERNMENT M. H COLLEGE OF HOME SCIENCE FOR WOMEN  
(AUTONOMOUS) JABALPUR, MADHYA PRADESH "**

**" COLLEGE PREMISES OLD & NEW BUILDING"  
BY THE OWNER / PRINCIPAL / OCCUPIER FOR COMPLIANCE OF FIRE  
PREVENTION AND LIFE SAFETY MEASURE.**

**Location:** NAPIER TOWN, HOME SCIENCE COLLEGE ROAD, NEAR MADAN MAHAL POLICE STATION, JABALPUR, MADHYA PRADESH, 482002.

**REF:** 2784/2024

**Contact:** { hegmmhsgpgcjab@mp.gov.in } :: +91-9977000913

**AREA of construction:** 10.50 acres

**Age of Building Construction:** 60+ years with renovation.

**Total occupied rooms:**

**Total number of students:** 4000 + approx

**Structure type:** G+2

Certified that I have carried out inspection for the following Fire prevention and life safety measures installed in the building / Premises.

S.no.	Required as per Part-4 of NBC of India.	Required	Remarks.
1	Fire Extinguishers	NOS	62 ( ABC + CO2 + DCP)
2	Hose Reel system	NOS	Not applicable
3	Wet Riser Down corner	NOS	Not applicable
4	Yard Hydrant system	NOS	Not applicable
5	Automatic Sprinkler System in entire building	NOS	Not applicable
6	Manually operated electric fire alarm in entire building	NOS	Not Available - "RECOMMENDED"
7	Automatic Fire Detection and alarm	NOS	Not Available "RECOMMENDED"
8	Under Ground Static water tank	LITERS	Not applicable
9	Terrace Tank	LITERS	5000+ APPROX
10	FIRE Exit Sings	-	Not Available ( to be installed )





S.no.	Required as per Part-4 of NBC of India,	Required	Remarks.
11	Emergency Lighting with battery Backup	-	Not Available
12	Fire Shaft Pressurisation system,	-	Not applicable

REF: 2784/2024

\* I/We further certify that a two day audit/ inspection was conducted in the campus of the college on the 14th of February by our certified Auditors and it was further found out that:

- These installations in the above mentioned building are not maintained in good repair and efficient condition during the period as required under the provisions of the National Building code 2005.

No deviation found in the above report at the time of Audit.

We have found several lapse in the system of safety deployed by the college control authority and therefore as a duty of an auditor I would recommend an immediate response action to this situation considering 4000+ students visit the Campus everyday here along with facilities of kitchen cooking and usage of electrical on a daily basis.

The college campus is a 70+ years old construction with old style corridors and lacks the modern safety design elements that are recommended these days in order to prevent stamped like situations in some cases. It therefore becomes necessary that the campus has to be well maintained, equipped with adequate safety and prevention equipments along with apt training for to the staff as well as teachers in the subject of crisis management.

This report will further emphasis on the lack of preparations and fitness of current equipments, faults in the existing systems deployed and suggestive and preventive measures that the college should adopt with immediate action in order to safeguard the campus and keep it at par with the current regulations established under the National Building Code, 2005.

*Following is the in detail summary of the on site Campus highlighting all the lapse in the current infrastructure and scope of improvement :*

*Ref: "Please refer to the alphabets allotted on each photo in red with the action point summary at the end of the report"*

1. "As per the NEPA standards of building establishments, the placement of fire extinguishers should be within 60 feet of any point in the building, near exits and should be in ear sight of any occupant as well as in physical reach."



There is no availability of any Fire extinguisher is almost every corridor across the college as per mentioned in the report.

No equipment's in the front corridor near the Principals Office. (A)

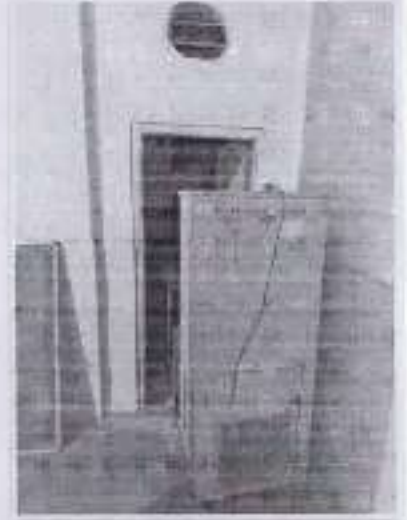
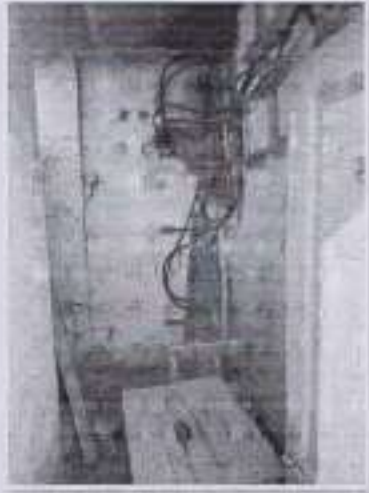


2. No Fire Extinguisher or Fire Alarm found in the lobby outside the Library and the Auditorium. Ground floor. (B)

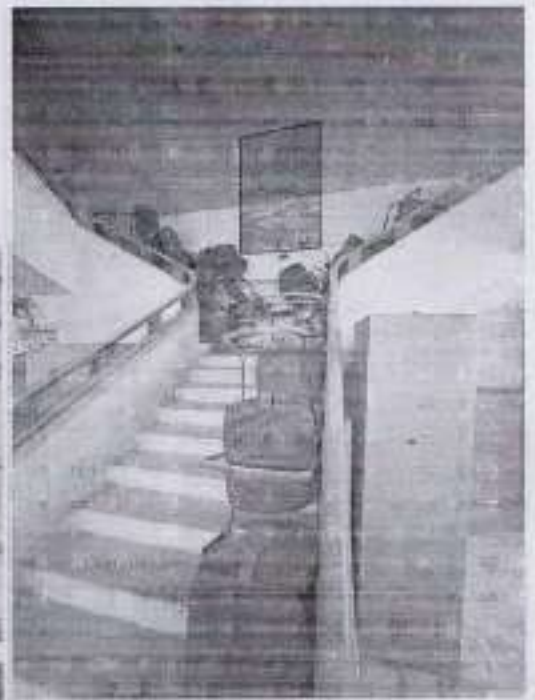




3. The DP box behind the Office store room on the ground floor showed signs of short circuit and carbon residue also the entrance to that space is also blocked. (C)

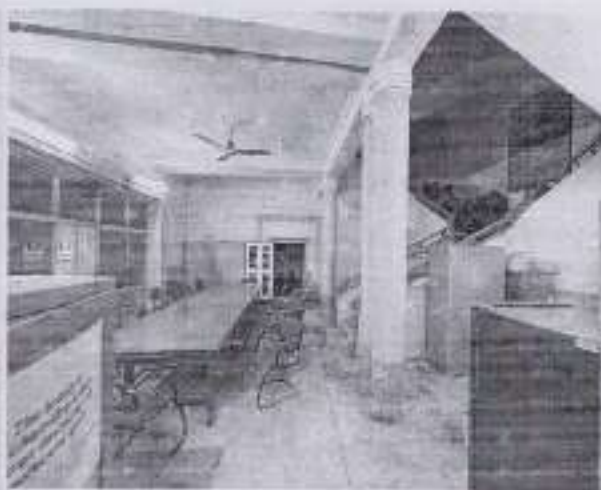


4. All kind of Combustable scrap/ wooden & metal debris/ unused gas cylinders etc should be removed from the campus immediately and should be placed in an open area with no electrical connections or be sold away under scrap.





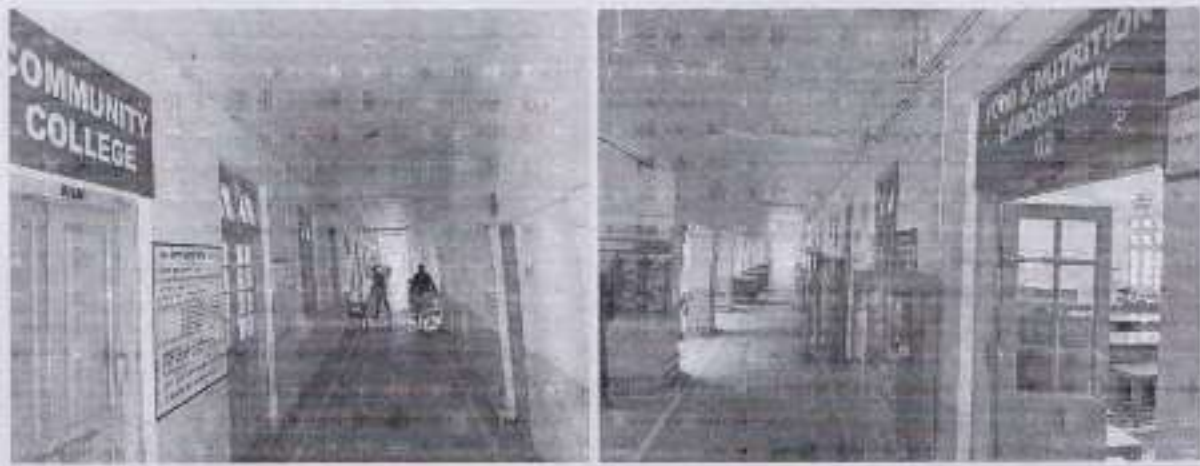
5. There was No Functional Fire extinguisher available in the CHEMISTRY LAB 1 & 2 & 3 & 4, BIO CHEMISTRY LAB, CHEMISTRY STORE ROOM inside the lab as well in the corridors outside the lab. All chemistry lab should have at-least an ABC type and CO<sub>2</sub> type Fire extinguisher specially near the chemical storage. (D)



6. Acid should be left open and accessible at all times due to hazard of any spillage or rats dropping bottles of hazard liquids. also there was no active or Co<sub>2</sub> Fire extinguisher found in the lab or outside the store room. (E)



7. Out of date and unfit Fire extinguishers were found in the ground floor, Food and Nutrition laboratory and there were no fire extinguishers in and around the Food & Nutrition Library, Department and the corridors surrounding it. ( F )



8. No fire extinguisher found in the lobby of the maths department as well the extinguishers inside the department classrooms were out of date and expired. ( G )



( Fire extinguisher found hanging without an exit pipe in the department- absolutely of no use )

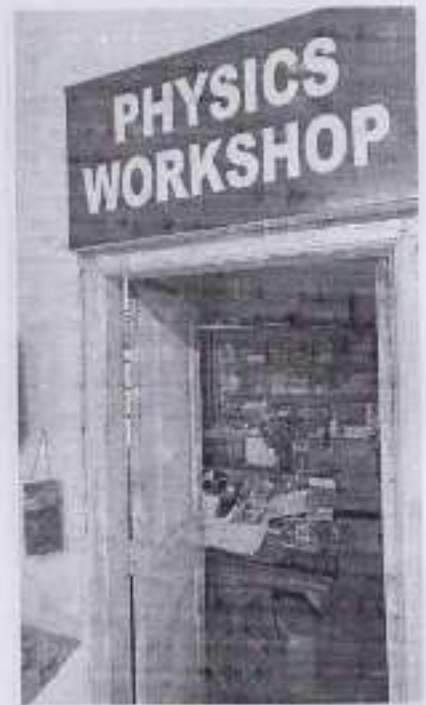
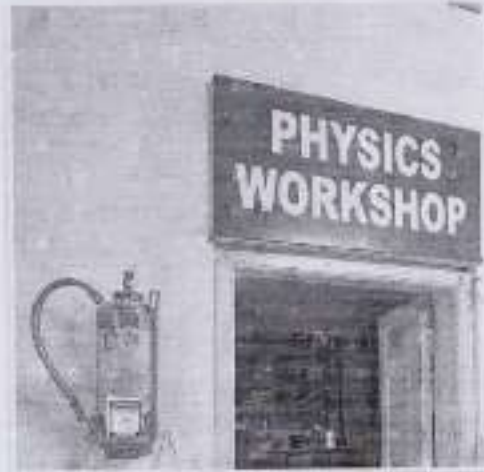




9. Insufficient number of fire extinguishers in the Textile department rooms and corridor. (H)



10. No fire extinguishers found in the lobby of the First floor physics lab (1, 2 & 3) and department as well as it is advisable to replace the outdated and unfit old fire extinguishers deployed. It is also advisable to remove excess scrap items out the labs to make them a little clutter free. (I)



11. Corridor in front of examination cell/ Control room lacks any kind of fire safety equipment. (J)



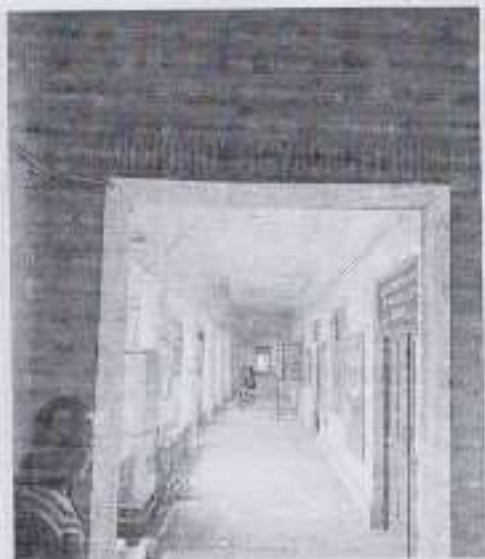
12. No safety equipment place in the corridors of first floor - computer lab 1 & 2 and incubation cents room corridor . Only one extinguisher on both the room which was found too unfit for use and expired . ( K )

13. No safety equipment were found on the second floor - Language department corridors and department of biological science corridors and classrooms . ( L )



14. No safety equipment were found on the second floor - Zoology department corridors , lab 1 & 2 department of botany corridor and staff room corridors and classrooms . ( M )

15. No safety equipment were found on the second floor - Microbiology department corridors , lab and staff room . ( M )



REF: 2784/2024

**REQUIREMENTS AND MINIMUM EQUIPMENT LIST FOR  
THE NEW BUILDING AND CLASSROOMS.**

S NO	LOCATION	TYPE AND CATEGORY	QUANTITY
1	NEW BUILDING IN FRONT OF MATHS DEPARTMENT - G + 2	ABC MAP90 6 KG	3PSC/ FLOOR GROUND + FIRST + SECOND
2	NEW BUILDING IN FRONT OF PHYSICS DEPARTMENT	ABC MAP90 6 KG	3PSC/ FLOOR GROUND + FIRST + SECOND
3	NEW BUILDING IN FRONT OF TXTILE DEPARTMENT - G + 2	ABC MAP90 6 KG	3PSC/ FLOOR GROUND + FIRST + SECOND
4	NEW BUILDING IN FRONT OF BOTONY DEPARTMENT - G + 2	ABC MAP90 6 KG	3PSC/ FLOOR GROUND + FIRST + SECOND

- Fire Extinguishers should be placed at an accessible and visible point with clear notation of its type and expiry.
- Manual non- Smoke detector Fire alarm is advisable to be installed in all the new establishments.
- It is recommended to purchase good quality MAP 90 powder fire extinguishers with latest technology discharge system.



**SUMMARY OF KEY ACTION POINTS AS PER AUDIT.**

S. NO	REF	ACTION TO BE TAKEN	NOTE
1	A	<ul style="list-style-type: none"> <li>- Immediately refill all the current available fire extinguishers ( ABC/ CO2/ DCP) across the college.</li> <li>- Install 4 new ABC Type Fire extinguisher in the corridor and outside server room.</li> </ul>	There is no single working fire extinguisher in the college since August 2023.
2	B	<ul style="list-style-type: none"> <li>- Install 3 New Abc Type Fire Extinguisher in the entire corridor.</li> <li>- Install Manually operated Fire alarm system.</li> </ul>	Instructions should be displayed about how to operated these alarms and the FIRE EQUIPMENTS
3	C	<ul style="list-style-type: none"> <li>- Remove any kind of blockage or scrap from all electrical rooms.</li> <li>- Install Co2 Type Fire extinguisher outside the room with DP box across the college.</li> </ul>	All the DP box and other electrically sensitive areas in the college are found to be in bad condition - hazard.
4	D	<ul style="list-style-type: none"> <li>- Refill all the fire extinguishers in the chemistry and dispose off all thee old ones and rusted ones.</li> <li>- Install new CO2 type fire extinguishers in all chemistry labs</li> <li>- Install 2 ABC type fire extinguisher in Corridor.</li> </ul>	-
5	E	<ul style="list-style-type: none"> <li>- the acid room should be kept open and under watch, thoroughly inspected from inside.</li> <li>- Install C02 Fire extinguisher outside the room.</li> <li>- Install ABC fire extinguisher in staff room.</li> </ul>	Take measures to prevent spillage.
6	F	<ul style="list-style-type: none"> <li>- dispose all the old and outdated fire extinguishers</li> <li>- Install 3 new ABC type Fire extinguisher in the corridor front.</li> </ul>	-
7	G	<ul style="list-style-type: none"> <li>- Install 2 new ABC extinguisher in the lobby in front.</li> <li>- ABC fire extinguisher outside Sport complex</li> </ul>	-
8	H	<ul style="list-style-type: none"> <li>- dispose all the old and outdated fire extinguishers.</li> <li>- 1 CO2 fire extinguishers around the machines.</li> <li>- 4 ABC Fire extinguishers across the corridor in front.</li> </ul>	-



9	I	<ul style="list-style-type: none"> <li>- dispose all the old and outdated fire extinguishers</li> <li>- Remove excess scarp.</li> <li>- Install 5 new ABC fire extinguisher across the lobby and 3 labs.</li> <li>- Reposition the exiting fire extinguishers into more accessible location.</li> </ul>	In most of the room the fire extinguishers are hidden behind the doors or almirahs.
10	J	<ul style="list-style-type: none"> <li>- No fire extinguishers at all in the corridors as well as rooms.</li> <li>- 2 new ABC type Fire extinguisher.</li> </ul>	-
11	K	<ul style="list-style-type: none"> <li>- Lack of basic fire extinguishers in both the computer lab.</li> <li>- dispose all the old and outdated fire extinguishers</li> <li>- Install 1 co2 &amp; 2 ABC fire extinguishers inside and outside.</li> </ul>	-
12	L	<ul style="list-style-type: none"> <li>- Install 5 new ABC fire extinguisher across the lobby.</li> </ul>	-
13	M	<ul style="list-style-type: none"> <li>- install new 2 ABC fire extinguisher in room.</li> <li>- Install 4 new ABC fire extinguisher across the lobby labs.</li> </ul>	-
14	N	<ul style="list-style-type: none"> <li>- Lack of basic fire extinguishers in both the lab.</li> <li>- dispose all the old and outdated fire extinguishers</li> <li>- install new 2 ABC fire extinguisher in room.</li> </ul>	-

1. Remove all the excess waste and scrap from the rooms, labs, store rooms, stairs, corridors.
2. Install Fire alarms and exit signs across the college.
3. Clean all the DP box rooms and equip them with Fire balls good quality along with CO2 Fire extinguishers and check for wire breach.
4. Refill all the existing Fire extinguishers with good quality MAP90 powder through a verified vendor and dispose the unfit and old extinguishers.
5. Install Fire crisis SOP instructions at points.
6. Regularly conduct Fire drills with register record of the fire extinguishers deployed, their location and not refill date for easy access.

**REQUIREMENTS FOR EQUIPMENT LIST FOR THE  
BUILDING AND CLASSROOMS.**

- In reference to the above action point summary, here is the attached list of equipments required to procure in order to fulfil the requirements of the Audit and comply with the standard rules of fire safety and regulations under National Building Code, 2005.

S NO	TYPE OF FIRE EQUIPMENT	CLASS AND CATEGORY	QUANTITY
1	ABC TYPE FIRE EXTINGUISHER	ABC TYPE MAP90 6 KG WITH LATEST NOSEL DISCHARGE SYSTEM	48
2	CO2 Type FIRE EXTINGUISHER	STORED PRESSURE CO2 4.5 KH MILD STEEL GRIP	10
3	AUTOMATIC AND PORTABLE FIRE EXTINGUISHER - APFE MAP90 -	HDPE PLASTIC, PESO CERTIFIED	10
4	HEAT DETECTOR / MANUAL FIRE ALARM SYSTEM - FOR ENTIRE COLLEGE	NON SMOKE DETECTOR, HEAT SENSITIVE SYSTEM	1
5	FIRE EXIT SIGNS AND D.Y INSTRUCTION BOARD ACROSS THE COLLEGE	MARKING EXIT SIGNS, PROCEDURES AND PROTOCOLS OF THE FIRE EXIT MANAGEMENT OF COLLEGE.	10



7.

A handwritten signature in black ink, appearing to read 'Rajesh Kumar Yadav'.

Certified and Duly Acknowledged by Auditor .

**Rajesh Kumar Yadav**

Senior Fire Safety Officer.

(Retd. Fire Officer, Nagar Nigam Bhopal)



**AUDIT REPORT**

**ANNUAL THIRD PARTY FIRE SAFETY INSPECTION  
OF  
"GOVERNMENT M. H COLLEGE OF HOME SCIENCE FOR WOMEN  
JABALPUR, MADHYA PRADESH "**

**" GIRLS HOSTEL PREMISES- OLD & NEW BUILDING"  
BY THE OWNER / PRINCIPAL / OCCUPIER FOR COMPLIANCE OF FIRE  
PREVENTION AND LIFE SAFETY MEASURE.**

**Location:** NAPIER TOWN, HOME SCIENCE COLLEGE ROAD, NEAR MADAN MAHAL  
POLICE STATION, JABALPUR, MADHYA PRADESH, 482002.

**REF:** 2785/2024

**Contact:** { ...hegmhsgpgcjab@mp.gov.in...};: +91-9977000913

**AREA of construction:** .....

**Age of Building Construction:** 60+ years with renovation.

**Total occupied rooms:** 84 rooms + 1 common hall + 1 kitchen pantry

**Total number of students:** 350 approx.

**Structure type:** G+2

Certified that I have carried out inspection for the following Fire prevention and life safety measures installed in the building / Premises.

S.no.	Required as per Part-4 of NBC of India.	Required	Remarks.
1	Fire Extinguishers	NOS	34 (ABC) + 5(CO2)
2	Hose Reel system	NOS	Not applicable
3	Wet Riser Down corner	NOS	Not applicable
4	Yard Hydrant system	NOS	Not applicable
5	Automatic Sprinkler System in entire building	NOS	Not applicable
6	Manually operated electric fire alarm in entire building	NOS	Not Available - *RECOMMENDED *
7	Automatic Fire Detection and alarm	NOS	Not Available
8	Under Ground Static water tank	LITERS	Not applicable
9	Terrace Tank	LITERS	2000+ APPROX
10	Exit Signs	-	Not Available ( to be installed )

S.no.	Required as per Part-4 of NBC of India.	Required	Remarks.
11	Emergency Lighting with battery Backup	-	Not Available
12	Fire Shaft Pressurisation system.	-	Not applicable

REF: 2785/2024

" I/We further certify that these installations in the above mentioned building are not maintained in good repair and efficient condition during the period as required under the provisions of the National Building code 2005. No deviation found in the above report at the time of Audit.

We have found several lapse in the system of safety deployed by the hostile control authority and therefor as a duty of auditor would recommend an immediate response to this situation considering 350+ students live here along with facilities of kitchen cooking and usage of electrical on a daily basis.

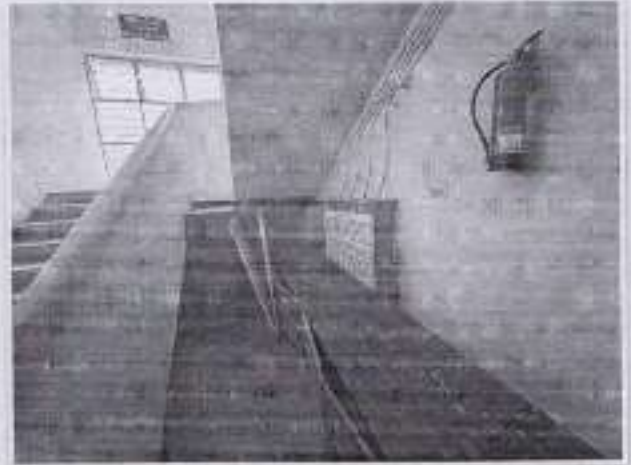
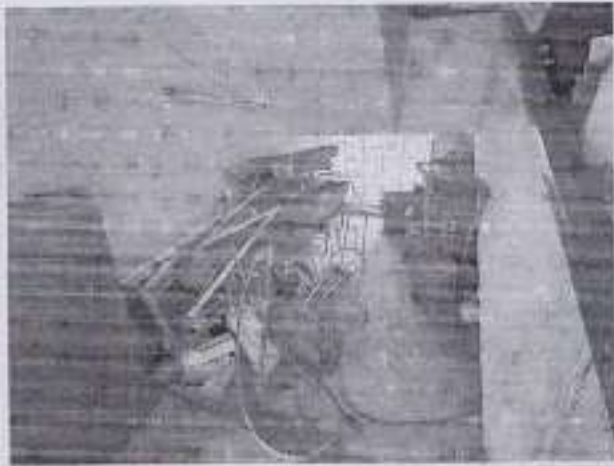
Following is the in detail summary of the on site situation and preventive protocols that the hostel administration shall adept to immediately:

- (1) It has been found that there was no active FIRE EXTINGUISHER IN THE ENTIRE HOSTEL CAMPUS that was in a usable condition. All the fire extinguishers deployed in the hostel premises need immediate refilling. The variety and fitness of some of the fire extinguishers in the campus is unacceptable and that the cylinders have rusted out and would require immediate change.





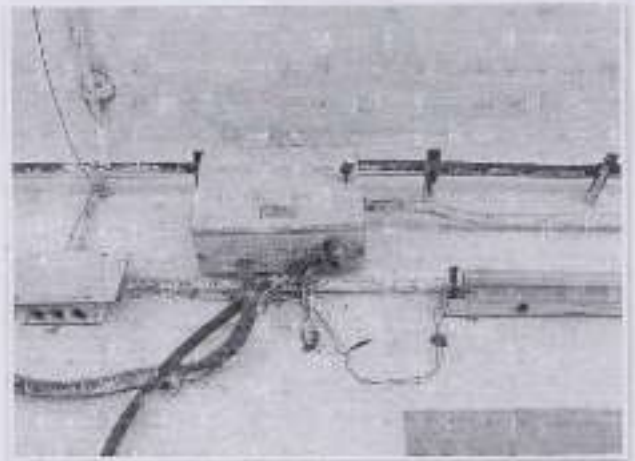
- (2) Debris which is classified as combustible is found to be collected and stored near critical exit areas as well as near electrical appliances. As per the National Building code 2005, there should not be any debris and combustable waste material collected at any spot which has electrical connections/ appliances surrounding it. Such collection of scarp sometimes becomes the primary cause of fire hence matter should be taken up with utmost priority.



(Scrap collected in huge quantity behind the main hostel campus building)



- (3) A few of the electrical components and wiring show a sign of wear & tear and short circuit in the past. Black carbon residue is found on wirings connecting the main circuit lines of the hostel. The following should be replaced with ISI certified cables by professional electrical audit company.





- (4) As per the general fire protocol mentioned in the National building code 2005, it is considered important that there should be a fire extinguisher available in the the corridor at every 60 feet. But, it was noted that there was almost no fire extinguishers in the corridors of the campus. "Images show first and second floors of A & D Block"



- (5) Unavailability of the right equipment near DP box in - A block ground floor, C block ground floor & the main switch at A block. For the prevention of electrical fires it is suggested to place CO2 type fire extinguishers and Automatic Portable Fire extinguisher Cans near main circuit lines and Box.



( Good quality and refilled Co2 fire extinguishers along with APFE type fire extinguishers should be placed at critical fire hazard points for optimum security)



- (6) C Block - second floor. There was a single fire extinguisher found at this floor of any kind with over 7-8 rooms on it with students living inside.

## SUMMARY OF KEY ACTION POINTS AS PER AUDIT.

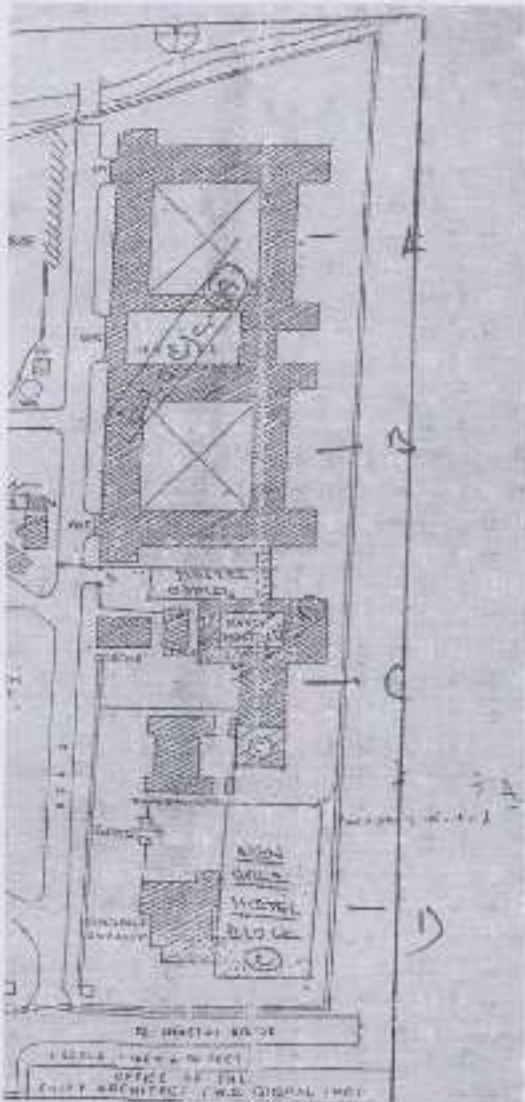
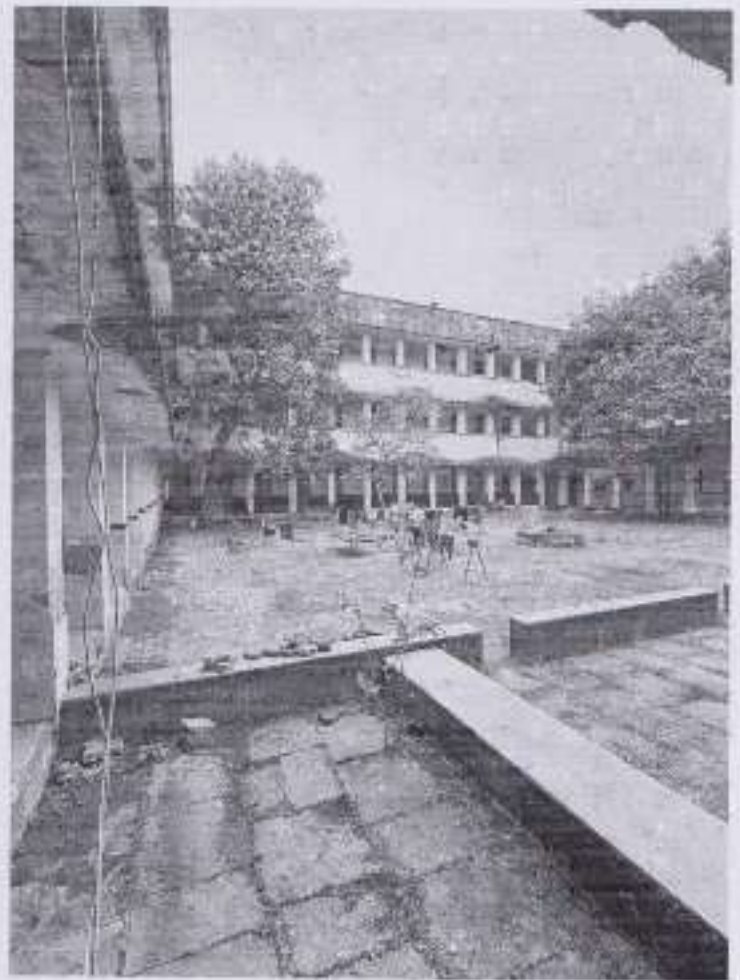
S. No.	ACTION	NOTE.
1	Remove all the debris, loose items, wooden material, scrap from the hostel campus and dump it near any open ground with electrical connection.	As per attached photographs and inspection conducted,
2	IMMEDIATELY get all the Fire Extinguishers that are in usable condition without any faults REFILLED and SERVICED with premium quality MAP90 POWDER from a quality retailer/ vendor.	MAP90 power is considered the best in the industry and should only be purchased from a verified vendor.
3	Remove and Replace all the fire extinguisher with manufacturing year more than 7 years old, faulty gauge and rusted body and replace them with new and hi- tech alternatives,	Auditor visibly identified the faulty fire extinguishers. 8-10 extinguishers were found to be unfit for use.
4	Install high quality CO2 Fire extinguisher 4Kg near all three DP boxes and circuit board identified.	CO2 fire extinguisher is especially used for electrical fires - Total 5 need CO2 Type extinguishers required.
5	Install new High quality ABC Types Fire extinguisher in the corridors as per the NBC 2005, at 60Ft distance reach and on the floors where there is no Fire equipments or insufficient ones.	As per auditors identification, a total of 15 new ABC type fire extinguishers required in areas off lapse where no fire extinguishers were found.
6	Install working Tube-lights - generator/ Inverter backed or Hi-tech Inverter bulbs near all the exit points and staircases.	Lot of lights were found non-functional around the staircase which can be fatal at the time of a stampede.
7	Install Night glowing fire exit signs at all appropriate exits as per auditors inputs.	FIRE EXIT SIGNS are useful and mandatory.
8	Install manually operated - electric Fire Alarm system.	Mandatory as per NBC, 2005.

## REQUIREMENTS FOR EQUIPMENT LIST FOR THE BUILDING AND CLASSROOMS.

- In reference to the above action point summary, here is the attached list of equipments required to procure in order to fulfil the requirements of the Audit and comply with the standard rules of fire safety and regulations under National Building Code, 2005.

S NO	TYPE OF FIRE EQUIPMENT	CLASS AND CATEGORY	QUANTITY
1	ABC TYPE FIRE EXTINGUISHER	ABC TYPE MAP90 6 KG WITH LATEST NOSEL DISCHARGE SYSTEM	18
2	CO2 Type FIRE EXTINGUISHER	STORED PRESSURE CO2 4.5 KH MILD STEEL GRIP	5
3	AUTOMATIC AND PORTABLE FIRE EXTINGUISHER - APFE MAP90 -	HDPE PLASTIC, PESO CERTIFIED	5
4	HEAT DETECTOR / MANUAL FIRE ALARM SYSTEM - FOR ENTIRE COLLEGE	NON SMOKE DETECTOR, HEAT SENSITIVE SYSTEM	1
5	FIRE EXIT SIGNS AND DIY INSTRUCTION BOARD ACROSS THE HOSTEL	MARKING EXIT SIGNS, PROCEDURES AND PROTOCOLS OF THE FIRE EXIT MANAGEMENT OF COLLEGE.	10





**Certified and Duly Acknowledged by Auditor .**

**Rajesh Kumar Yadav**

**Senior Fire Safety Officer.**

**(Retd. Fire Officer, Nagar Nigam Bhopal)**