

S.B. P. Patel Engineering College



Audit Report – 2022-2023

Environment, Energy and Green Campus

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ACKNOWLEDGEMENT

Soni Group of Technologies expresses gratitude to the administration of S. P. B. Patel Engineering College for entrusting us with the significant task of conducting a Green Audit. The voluntary pursuit of this study underscores the management's awareness and dedication to sustainability. We extend our appreciation to all teams for their cooperation in completing the assessment.

We extend our gratitude to Mr. Dipak Patel (I/C Registrar), for his unwavering support and guidance. Without his assistance, the successful completion of this project would not have been possible. We also appreciate the active involvement of other staff members during data collection and field measurements.

INTRODUCTION

Nowadays, educational institutions are becoming more thoughtful towards the environmental, safety and sustainability aspects and as a result new and innovative concepts are being introduced to make them sustainable and eco-friendly. The activities carried out by the institution can also create adverse environmental impacts. To preserve the environment within the institution, several viewpoints are applied by a number of educational institutes to solve their environmental problems such as promotion of the saving the energy, waste recycle, water consumption reduction and water harvesting.

Green audit is defined as an official inspection of the effects a college has on the environment, safety and sustainability. Green Audit is conducted to evaluate the actual scenario at the institution campus. Green audit can be a useful tool for a college to determine how and where they are using most of the energy or water or resources; the College can then decide how to implement changes and make savings. It can also be used to determine the nature and volume of waste, which can be used for a recycling project or to improve waste minimization plan. Green auditing and the application of mitigation measures is a win-win situation for all the institutions, the learners, and mother earth. It can also result in health awareness and can promote environmental awareness, values and beliefs. It provides a better understanding to staff and students about the green impact on the institution. Green auditing also upholds financial savings through reduction of resource usage. It gives an opportunity to the students and teachers for the development of ownership of personal and social responsibility. The audit process involves primary data collection, site walk with the team of college including the assessment of policies, activities, documents and records.

VISION OF S. P. B. PATEL ENGINEERING COLLEGE

To nurture holistic development of individuals – professionally competent, socially responsible and spiritually aware.

MISSION OF S. P. B. PATEL ENGINEERING COLLEGE

To blend value education with scholastic pursuits to facilitate transformational learning and institutional excellence.

PURPOSE OF THE STUDY

The main purpose of the green audit is to promote Environment Management and Conservation in the Institute Campus. The purpose of the audit is to identify, quantify, describe and prioritize the framework of Environment Sustainability non-compliance with the applicable regulations, policies and standards. The main purpose of Green Report is:

- To inculcate awareness among the students to real concerns of environment and its sustainability.
- To promote the concept of environmental conservation so as to minimize the extent of exploitation of resource use inside the campus.
- To ensure that the development of the campus fosters the concept of environmental sustainability and green campus.
- To establish baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requiring high cost.
- To bring out a status report on environmental compliance.

METHODOLOGY

The methodology adopted for this audit was a four-step process comprising of data collection, data analysis, best practices followed in the campus and recommendations and suggestions given to the organization to improve the greeneries practices further.

BUILDING DESIGN AND LANDSCAPING

1. Local building Regulations



The infrastructure is constructed in year 2006 with all applicable codes of civil engineering and also ensure that it provides comfort to the students and professors with the all basic requirements. Built-up spaces of institute meet all local building laws.

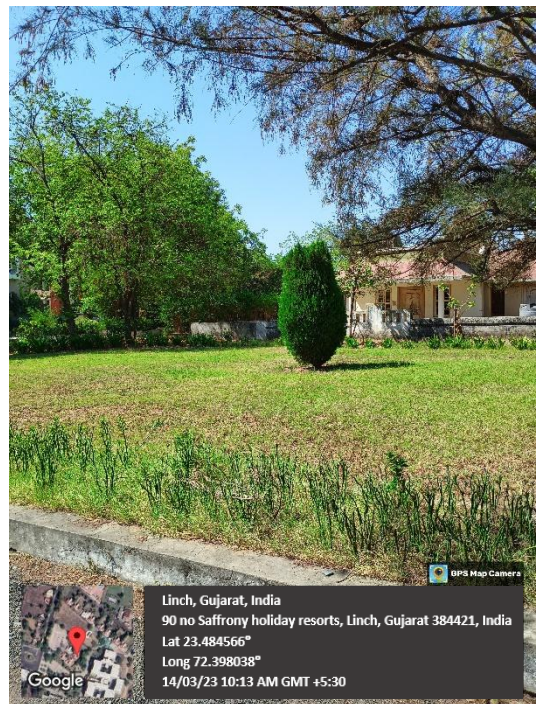
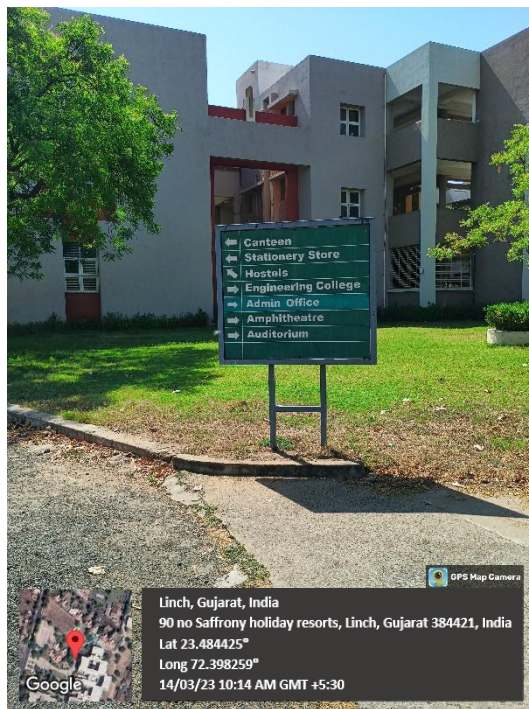
2. Greenbelt area

Institute has 405 m² area which is developed as greenbelt area, it prevents soil erosion and keeps the vicinity 2-3 degrees' cooler compared to other nearby open lands. Even though the proximity of the campus from one of the major State highways is low still the greenbelt acts as an excellent barrier to bypassing vehicular noise pollution.

This greenbelt area also reduces the overall temperature of the institute; instead of classrooms lectures are often comfortably conducted on open ground.

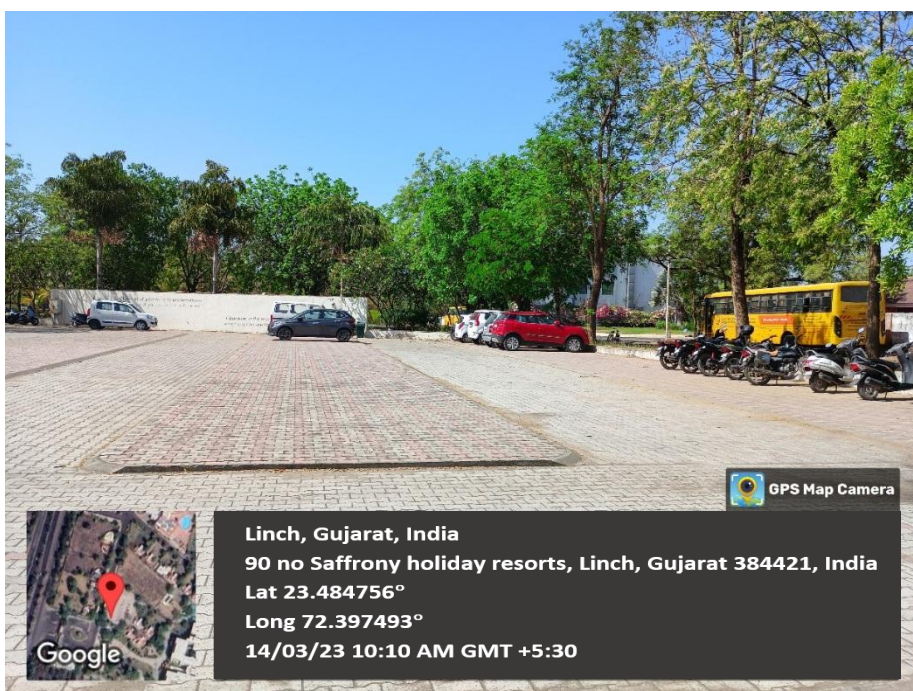
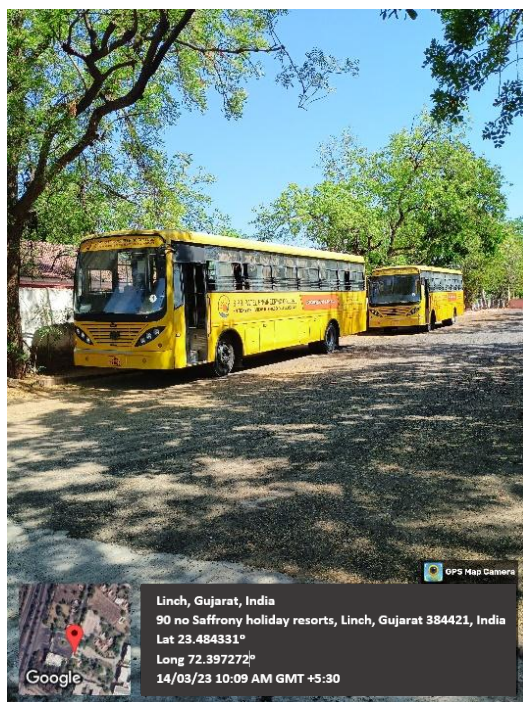
University have implemented below given measures for top soil preservation:

- Majority of campus is covered with natural green grass
- Big trees are planted surrounding the buildings and pathways



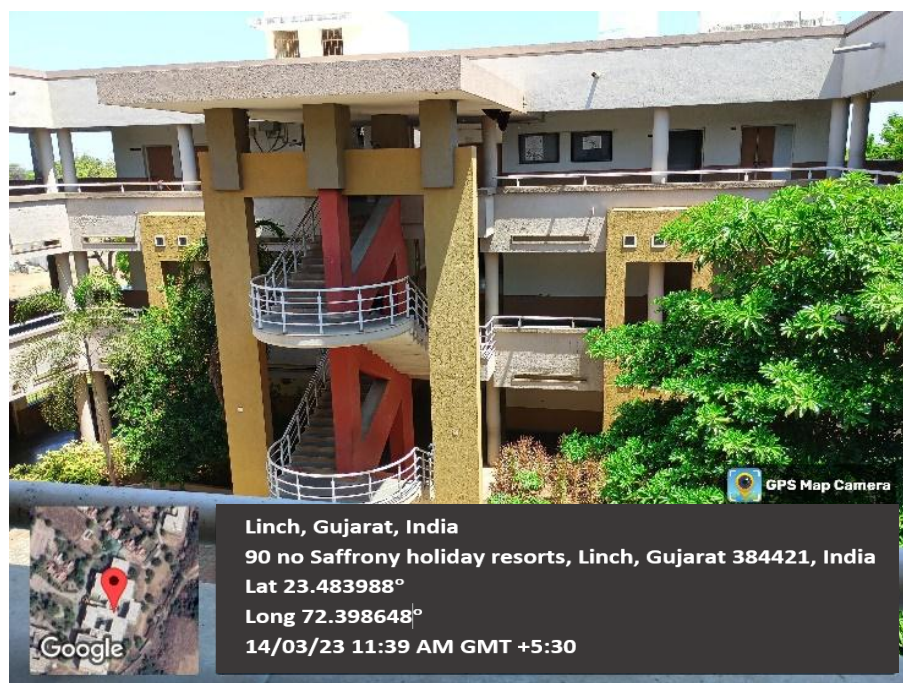
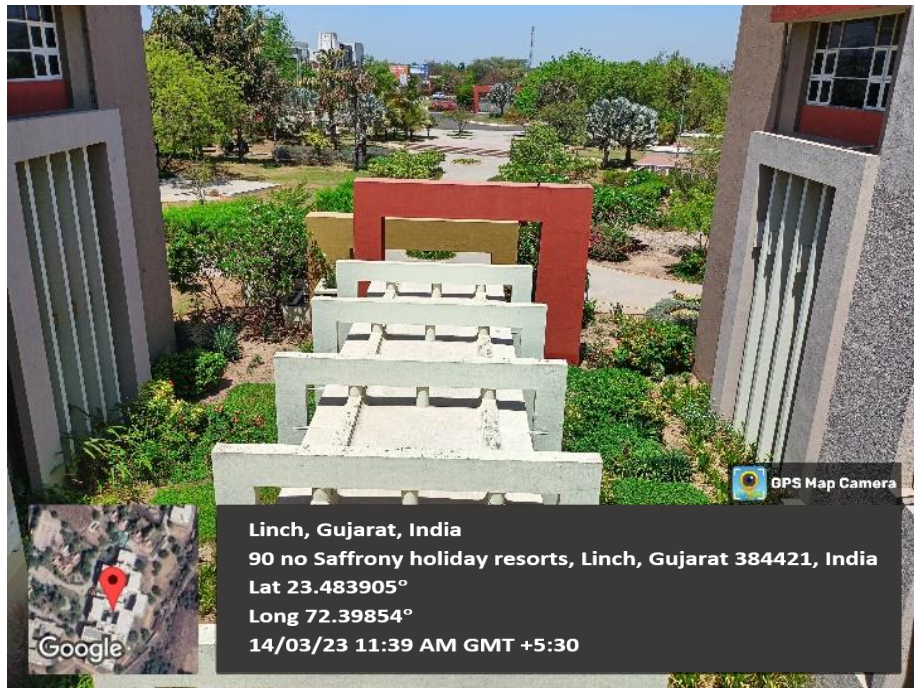
3. Parking facility

Institute has spacious parking area for the staff & faculty members. Surrounding parking facilities are covered with greenery. Institute has its own transportation facility for students, staff and faculty members covering the farthest routes ranging all the way from Mehsana to Ahmedabad.



4. Minimize heat exposure to sun: non roof

- Institute has constructed building by saving existing large trees and designed building shape accordingly.
- Institute building surroundings are covered with large tree
- Prevent the heat exposure and also maintain the temperature of the overall area.



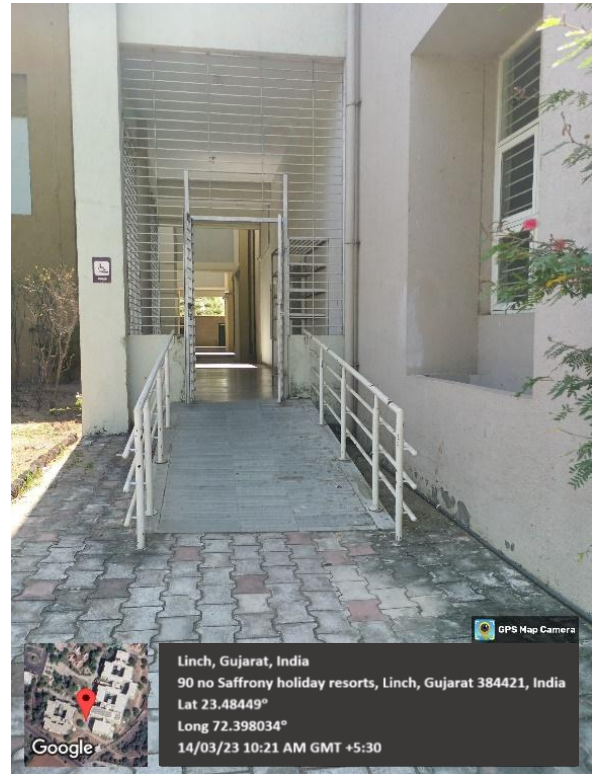
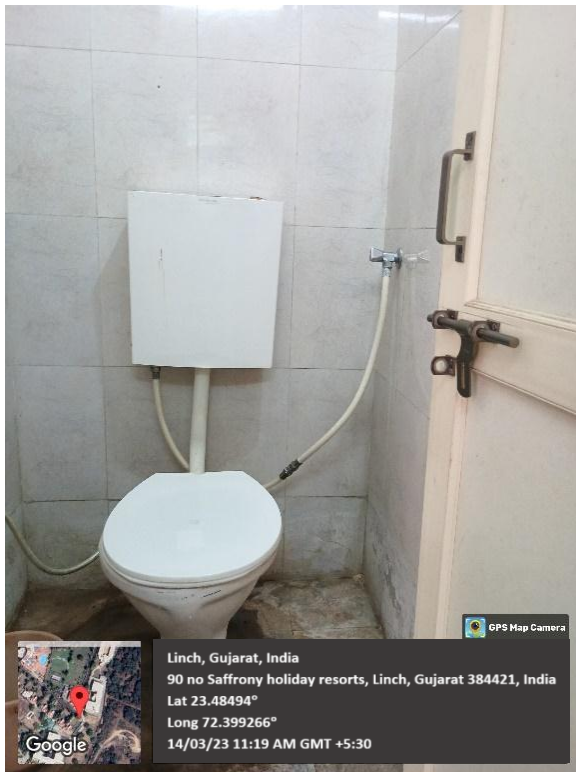
5. Minimize heat exposure to sun: roof

- All building roofs are covered with water proofing and china mosaic to reflect direct sunlight
- All building roofs are covered with roof top solar panels to avoid direct exposure of sun



6. Universal design

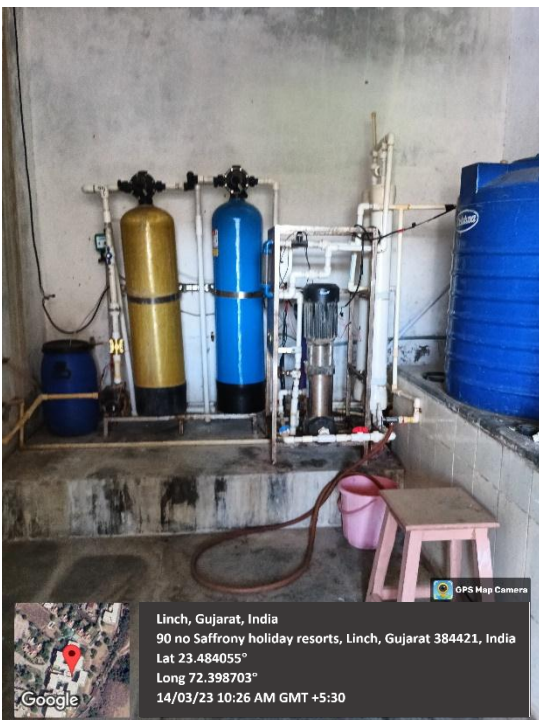
- All buildings have provision of ramps and lifts
- All classrooms and labs have flat surface for entry & exits of wheel chairs
- Washrooms has provision of all sanitary requirements



WATER MANAGEMENT PRACTICE

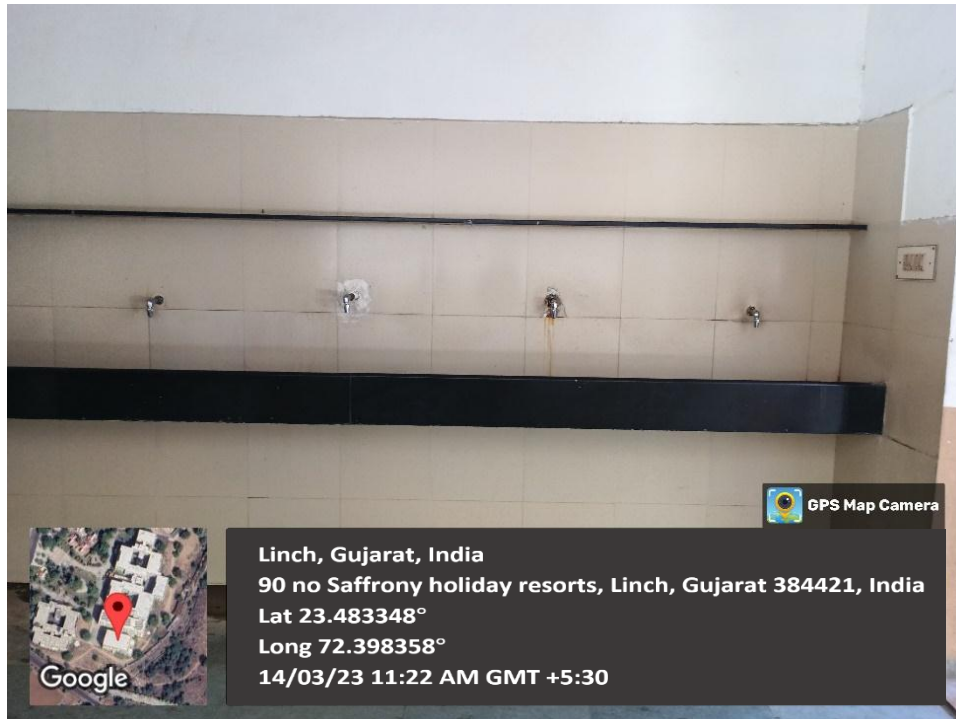
1. Water supply system

- Water source of the institute is bore well (1 no.), water flow meter is installed at bore well for the measurement of the water consumption on daily basis. There are three nos. of underground water storage tanks, water stored in storage tank and pumped to the other storage tank which are located at the building terrace, from there water supply to RO system. Then water is used for the drinking and other purposes.



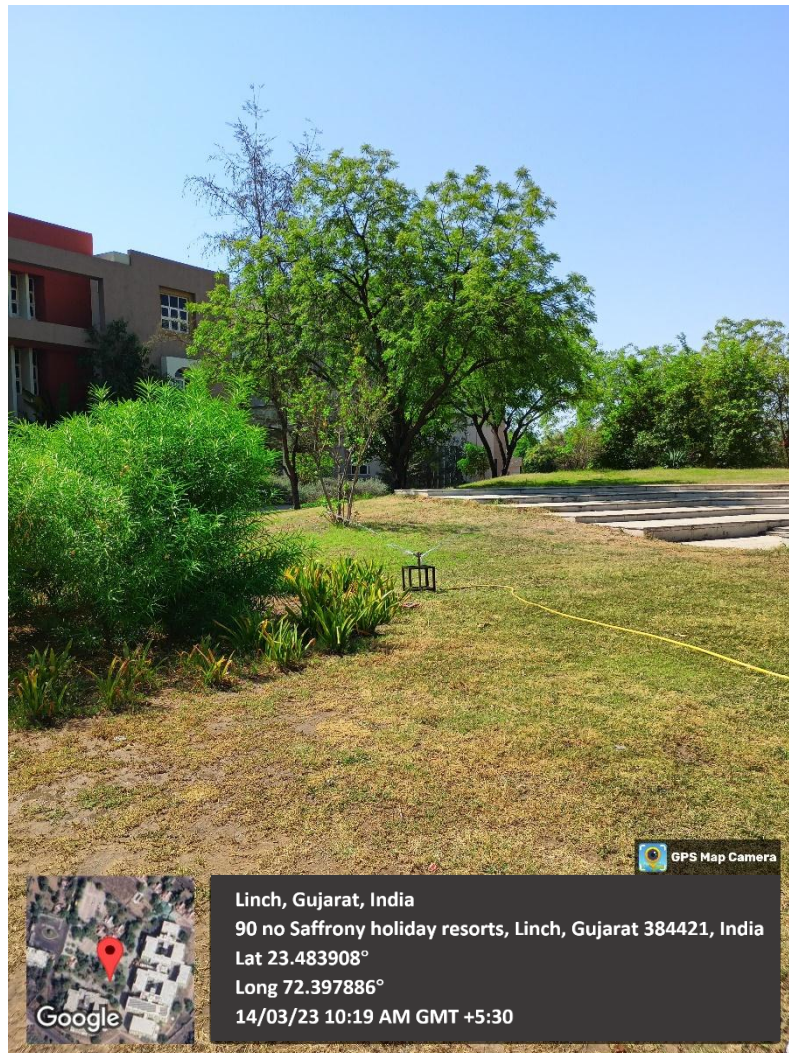
2. Water efficient plumbing fixtures

- All water efficient fixtures and low flow without hampering the performance. Plumbing fixtures have achieved water efficiency and are working properly with no leaks or drips.



3. Water efficient landscaping

- Whole landscaping in institute campus is water efficient that reduces the water consumption
- Sprinkler system is installed in all lawn areas



4. Monitoring of usage of water

- Institute has installed flow meter for the measurement of water consumption on daily basis. Water lose is prevented through real time alert of water overflow, leakages and dripping that ensures judicious use of water consumption.



AIR QUALITY LEVEL

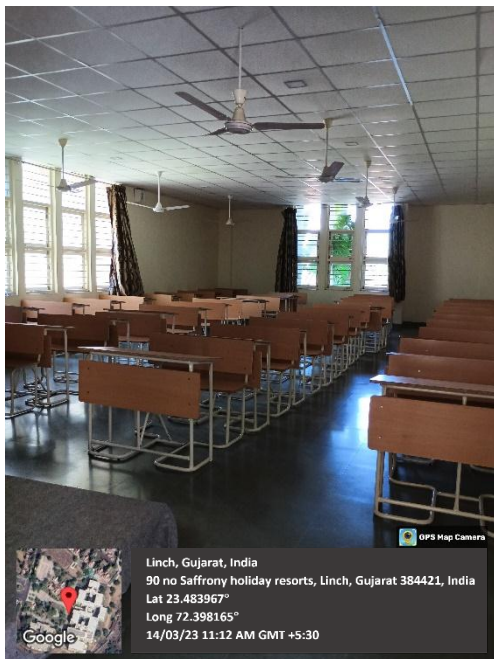
1. Tobacco smoke control

- Institute is totally Smoke Free Campus; Anti-Smoking Policies are strictly implemented that eliminates exposure of students & teachers to tobacco smoke & reduce health impacts caused due to passive smoking.
- Institute has policy of receiving fine of Rs. 500/- in case of noncompliance.



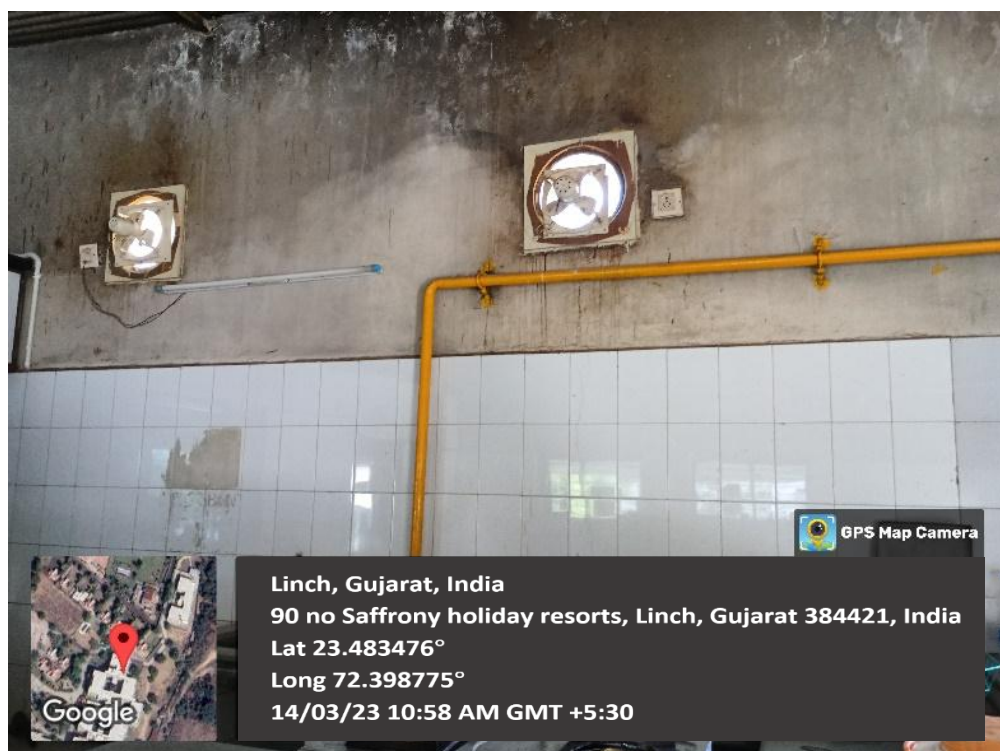
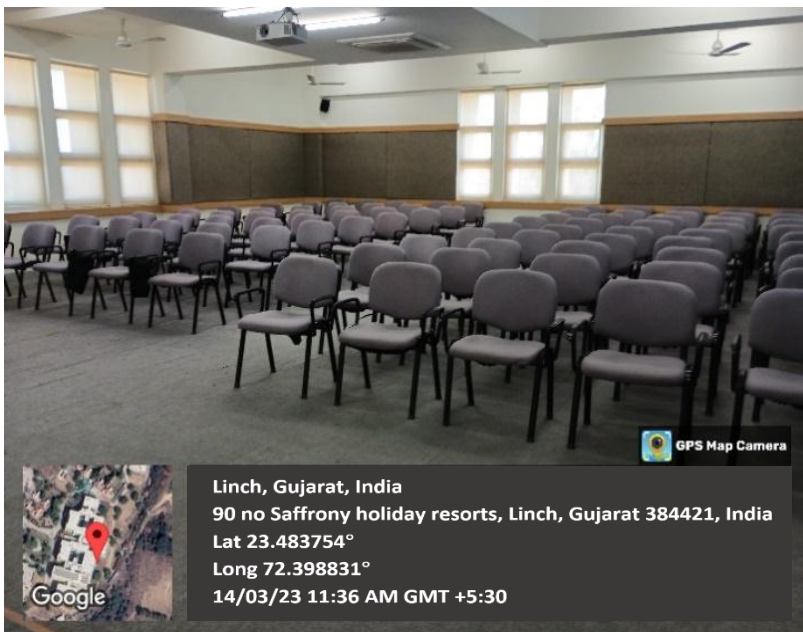
2. Day lighting

- Indoor environmental conditions in classrooms, particularly daylighting, significantly impact students' health, well-being, and performance. Purposeful utilization of natural light in classrooms holds immense potential for enhancing user comfort and academic achievement, while also promoting energy efficiency in buildings.
- The majority of regularly occupied spaces on the university campus receive ample daylight, and the average daylight factor is consistently maintained.



3. Fresh air ventilation and Area of class

- Effective ventilation systems play a crucial role in removing pollutants, bacteria, excess moisture, and unpleasant odors (such as body odor) from classrooms.
- At institute campus, all regularly occupied spaces—including classrooms, laboratories, libraries, and indoor game facilities—are adequately ventilated. This contributes to the health and well-being of both students and faculty members.
- Institute’s learning spaces, including classrooms, adhere to statutory standards and norms, maintaining appropriate occupant density.
- Additionally, the canteen is equipped with exhaust fans for proper ventilation.



ENERGY USES AND SAVING PRACTICES

1. Energy efficient lighting fixtures

- Extensive research consistently confirms that natural light is optimal for reading and studying. Institute prioritizes abundant natural light to enhance learning outcomes.
- LEDs (Light Emitting Diodes) also excel in durability, especially in environments that subject light bulbs and fixtures to significant stress—such as our bustling campus.
- By adopting LED lighting, institute creates a safe, secure, and energy-efficient environment throughout the campus.
- LEDs not only reduce operational costs but also align with the preferences of faculty and students who appreciate eco-friendly solutions.
- Institute has energy-efficient lighting strategy involves maximizing illumination while minimizing power consumption. This includes replacing high-energy-consuming lights like incandescent and high-discharge lamps.
- Thanks to their exceptional energy efficiency, LED lights significantly cut down on repair, operational, and maintenance expenses. Compared to traditional light bulbs, LED bulbs consume less than half the energy.
- Institute has committed to sustainability extends to the installation of LED lighting and fixtures, which minimizes the environmental impact associated with energy usage.

Electric appliances detail

| SR NO. | ROOM NO | ROOM NAME | NO OF FANS | TOTAL LOAD OF FANS IN WATTS | NO OF LIGHTS | TOTAL LOAD OF LIGHTS IN WATTS | NO OF A.C | TOTAL LOAD OF AC IN WATTS | NO OF PC | TOTAL LOAD OF PC IN WATTS | NO OF MOTOR | TOTAL LOAD OF MOTOR IN WATTS | EQUIPMENT | NO.OF EQUIP. | OTHER M/C IN WATTS | TOTAL LOAD IN Watts |
|--------|---------|---------------------|------------|-----------------------------|--------------|-------------------------------|-----------|---------------------------|----------|---------------------------|-------------|------------------------------|-----------|--------------|--------------------|---------------------|
| 1 | 101 | M.O | 1 | 80 | 2 | 80 | 1 | 1920 | | 0 | | | TV | 1 | | 2080 |
| 2 | 102 | M.O | 2 | 160 | 9 | 360 | 1 | 1920 | 1 | 120 | | | TV& DVR | 2 | 50 | 2610 |
| 3 | 103 | CLASSROOM | 9 | 720 | 10 | 400 | | 0 | | 0 | | | | 1 | 100 | 1220 |
| 4 | 104 | CLASSROOM | 7 | 560 | 4 | 160 | | 0 | | 0 | | | | | | 720 |
| 5 | 105 | CLASSROOM | 7 | 560 | 5 | 200 | | 0 | | 0 | | | | | | 760 |
| 6 | 106 | CLASSROOM | 9 | 720 | 4 | 160 | | 0 | | 0 | | | | | | 880 |
| 7 | 107 | ELEC ROOM | 7 | 560 | 1 | 40 | | 0 | | 0 | | | | | | 600 |
| 8 | 108 | GIRLS TOILET | 1 | 80 | 1 | 40 | | 0 | | 0 | | | | | | 120 |
| 9 | 109 | WATER ROOM | | 0 | | 0 | | 0 | | 0 | | | | | | 0 |
| 10 | 110 | MACHINE LAB | 9 | 720 | 7 | 280 | | 0 | 1 | 120 | 10 | 546 | | | | 1666 |
| 11 | 111 | COMP. CENTRE | 8 | 640 | 7 | 280 | 4 | 7680 | 31 | 3720 | | | | | | 12320 |
| 12 | 112 | BOYS TOILET | | 0 | 1 | 40 | | 0 | | 0 | | | | | | 40 |
| 13 | 113 | FACULTY ROOM | 1 | 80 | 2 | 80 | 1 | 1920 | | 0 | | | | | | 2080 |
| 14 | 114 | EC-LAB | 7 | 560 | 6 | 240 | | 0 | 1 | 120 | | | | | | 920 |
| 15 | 114B | EC-LAB 2 | 2 | 160 | | 0 | | 0 | | 0 | | | | | | 160 |
| 16 | 115 | EC-LAB | 6 | 480 | 5 | 200 | | 0 | 2 | 240 | 1 | 125 | | 1 | 500 | 1545 |
| 17 | 116 | EC-LAB 2 | 6 | 480 | 6 | 240 | | 0 | 2 | 240 | | | | | | 960 |
| 18 | 117 | LIBRARY | 25 | 2000 | 19 | 760 | | 0 | 17 | 2040 | | | | 1 | 1000 | 5800 |
| 19 | 118 | CONFERENCE | 2 | 160 | 8 | 320 | 1 | 1920 | 1 | 120 | | | Projector | 1 | | 2520 |
| 20 | 119 | PRINCIPAL (DIPLOMA) | 1 | 80 | 3 | 120 | 1 | 1920 | 1 | 120 | | | | | | 2240 |
| 21 | 120 | HOD(MECH) | 1 | 80 | 6 | 240 | 1 | 1920 | 1 | 120 | | | | | | 2360 |
| 22 | 121 | PRINCIPAL(B.E.) | 2 | 160 | 4 | 160 | 1 | 1920 | 1 | 120 | | | | | | 2360 |
| 23 | 122 | GIRLS ROOM | 4 | 320 | 3 | 120 | | 0 | | 0 | | | | | | 440 |
| 24 | 123 | REFRIDGERATION LAB | 4 | 320 | 4 | 160 | | 0 | 1 | 120 | | | | | | 600 |
| 25 | 124 | MECH LAB | 7 | 560 | 4 | 160 | | 0 | 1 | 120 | | | | 11 | 5000 | 5840 |
| 26 | 125 | MECH LAB 2 | 7 | 560 | 5 | 200 | | 0 | 1 | 120 | | | | 2 | 1300 | 2180 |
| 27 | 126&127 | MECH LAB 3 | 12 | 960 | 7 | 280 | | 0 | 1 | 120 | | | | | | 1360 |
| 28 | 128 | BOYS TOILET | 1 | 120 | 1 | 40 | | 0 | | 0 | | | | | | 160 |
| 29 | 129 | WATER ROOM | | 0 | | 0 | | 0 | | 0 | | | | | | 0 |
| 30 | 130 | GIRLS TOILET | | 0 | 1 | 40 | | 0 | | 0 | | | | | | 40 |
| 31 | 131 | ELEC. ROOM | | 0 | 1 | 40 | | 0 | | 0 | | | | | | 40 |
| 32 | 132 | ENV. ENGG. LAB | 7 | 560 | 7 | 280 | | 0 | 1 | 120 | | | | 2 | 1200 | 2160 |
| 33 | 133 | SURVEYING LAB | 6 | 480 | 7 | 280 | | 0 | 2 | 240 | | | | | | 1000 |
| 34 | 134 | GEOLOGY LAB | 8 | 640 | 6 | 240 | | 0 | 2 | 240 | | | | | | 1120 |
| 35 | 135 | ADMIN OFFICE | 13 | 1040 | 10 | 400 | 1 | 1920 | 11 | 1320 | | | | | | 4680 |
| 36 | 136 | BOARD ROOM | | 0 | | 0 | 1 | 1920 | | 0 | | | | | | 1920 |
| 37 | 137 | DIRECTOR | 3 | 240 | 3 | 120 | 1 | 1920 | | 0 | | | | | | 2280 |
| 38 | 138A | CONCRETE & | 7 | 560 | 5 | 200 | | 0 | 1 | 120 | | | | 6 | 1500 | 2380 |
| 39 | 139 | HIGHWAY ENGG. | 6 | 480 | 6 | 240 | | 0 | | 0 | | | | 3 | 1500 | 2220 |
| 40 | 140A | MECH(COMP) LAB | 4 | 320 | 3 | 120 | 1 | 1920 | 18 | 2160 | | | | 1 | 80 | 4600 |
| 41 | 140B | RESEARCH LAB | 4 | 320 | 3 | 120 | 0 | 0 | | 0 | | | | | | 440 |
| 42 | 141A | MECH LAB | 4 | 320 | 4 | 160 | 0 | 0 | | 0 | | | | 3 | 30 | 510 |
| 43 | 142A | FLUID MECHANICS LAB | 4 | 320 | 4 | 360 | 0 | 0 | | 0 | | | | | | 680 |
| 44 | 142B | MECH LAB | 7 | 560 | 4 | 160 | 0 | 0 | | 0 | | | | 15 | 2500 | 3220 |
| 45 | 143A | AUTOMOBILE ENGG | 7 | 560 | 6 | 240 | 0 | 0 | 7 | 840 | | | | 5 | 1200 | 2840 |
| 46 | 144B | MECH WORKSHOP | 32 | 2560 | 17 | 680 | 0 | 0 | 2 | 240 | | | | 4 | 1600 | 5080 |
| 47 | 201 | FACULTY ROOM | 1 | 80 | 2 | 80 | 0 | 0 | 0 | 0 | | | | | | 160 |
| 48 | 202 | FACULTY ROOM | 5 | 400 | 4 | 160 | 0 | 0 | 4 | 480 | | | | | | 1040 |
| 49 | 203 | PROJECTOR ROOM | 9 | 720 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 880 |
| 50 | 204 | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 720 |
| 51 | 205 | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 720 |
| 52 | 206 | CLASSROOM | 9 | 720 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 880 |
| 53 | 207 | ELEC ROOM | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 54 | 208 | GIRLS TOILET | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 55 | 209 | WATER ROOM | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 56 | 210A | EC LAB 3 & 4 | 10 | 800 | 7 | 280 | 4 | 7680 | 24 | 2880 | | | | | | 11640 |
| 57 | 211A | EC LAB 5 & 6 | 10 | 800 | 7 | 280 | 4 | 7680 | 24 | 2880 | | | | | | 11640 |
| 58 | 212 | BOYS TOILET | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 59 | 213 | SERVER ROOM | 1 | 80 | 1 | 40 | 0 | 0 | 1 | 120 | | | | | | 240 |
| 60 | 214 A | EC COMP. CENTRE 4 | 6 | 480 | 5 | 200 | 2 | 3840 | 12 | 1440 | | | | | | 5960 |
| 61 | 215 | EC LAB 9 | 6 | 480 | 6 | 240 | 2 | 3840 | 24 | 2880 | | | | | | 7440 |
| 62 | 216 | PG CLASSROOM | 6 | 480 | 5 | 200 | 2 | 3840 | 24 | 2880 | | | | | | 7400 |
| 63 | 217A | | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 64 | 218&219 | GTU EXAM CELL | 6 | 480 | 6 | 240 | 1 | 1920 | 2 | 240 | | | | | | 2880 |
| 65 | 220&221 | FACULTY ROOM | 8 | 640 | 6 | 240 | 0 | 0 | 3 | 360 | | | | | | 1240 |
| 66 | 222 | PHYSICS LAB | 15 | 1200 | 12 | 480 | 4 | 7680 | 84 | 10080 | | | | | | 19440 |
| 67 | 223 | LANGUAGE LAB | 5 | 400 | 3 | 120 | 0 | 0 | 0 | 0 | | | | | | 520 |
| 68 | 224 | CLASSROOM | 5 | 400 | 4 | 160 | 0 | 0 | 1 | 120 | | | | | | 680 |
| 69 | 225 | CLASSROOM | 5 | 400 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 600 |
| 70 | 226 | SEMINAR HALL | 6 | 480 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 640 |
| 71 | 227 | CLASSROOM | 1 | 80 | 2 | 80 | 0 | 0 | 0 | 0 | | | | | | 160 |
| 72 | 228 | BOYS TOILET | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |

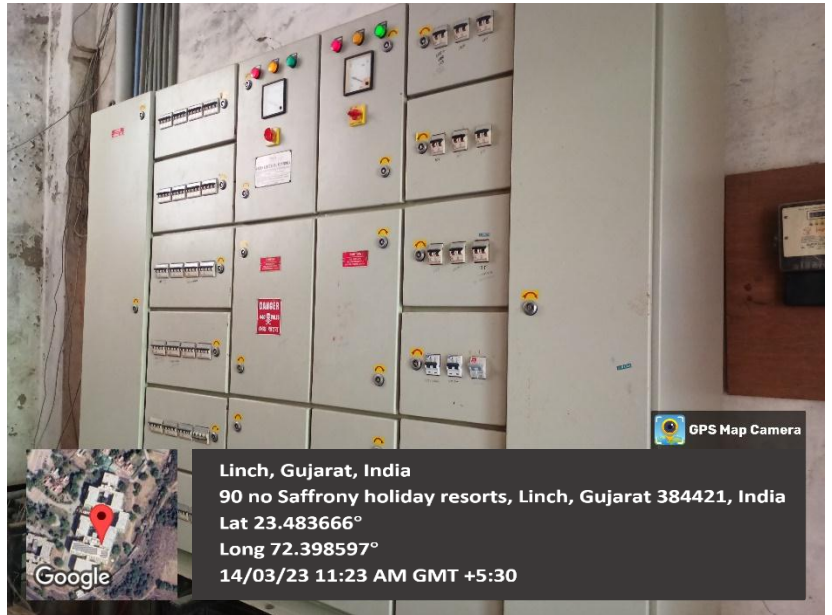
| | | | | | | | | | | | | | | | | |
|----|-----|--------------|---|----|---|----|---|---|---|-----|--|--|--|--|--|-----|
| 73 | 229 | WATER ROOM | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 74 | 230 | GIRLS TOILET | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 75 | 231 | ELEC ROOM | 0 | 0 | 1 | 40 | 0 | 0 | 1 | 120 | | | | | | 160 |

| SR NO. | ROOM NO | ROOM NAME | NO OF FANS | TOTAL LOAD OF FANS IN WATTS | NO OF LIGHTS | TOTAL LOAD OF LIGHTS IN WATTS | NO OF A.C | TOTAL LOAD OF AC IN WATTS | NO OF PC | TOTAL LOAD OF PC IN WATTS | NO OF MOTOR | TOTAL LOAD OF MOTOR IN WATTS | EQUIPMENT | NO.OF EQUIP. | OTHE RM/C IN WATTS | TOTAL LOAD IN Watts |
|--------|---------|-------------------|------------|-----------------------------|--------------|-------------------------------|-----------|---------------------------|----------|---------------------------|-------------|------------------------------|-----------|--------------|--------------------|---------------------|
| 76 | 232 | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 720 |
| 77 | 233 | CLASSROOM | 7 | 560 | 13 | 520 | 0 | 0 | 1 | 120 | | | | | | 1200 |
| 78 | 234 | CLASSROOM | 7 | 560 | 3 | 120 | 0 | 0 | 1 | 120 | | | | | | 800 |
| 79 | 235 | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 720 |
| 80 | 236&237 | PG & TUTORIAL | 7 | 560 | 2 | 80 | 0 | 0 | 1 | 120 | | | | | | 760 |
| 81 | 238 | DRAWING HALL | 12 | 960 | 11 | 440 | 0 | 0 | 3 | 360 | | | | | | 1760 |
| 82 | 239 | AUDITORIUM HALL | 14 | 1120 | 198 | 7920 | 14 | 26880 | 1 | 120 | | | | | | 36040 |
| 83 | 240A | DRAWING HALL | 7 | 560 | 5 | 200 | 0 | 0 | 2 | 240 | | | | | | 1000 |
| 84 | 301&302 | FACULTY ROOM | 9 | 720 | 11 | 440 | 0 | 0 | 6 | 720 | | | | | | 1880 |
| 85 | 303 | CLASSROOM | 5 | 400 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 600 |
| 86 | 304 | CLASSROOM | 5 | 400 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 560 |
| 87 | 305 | CLASSROOM | 7 | 560 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 760 |
| 88 | 306 | CLASSROOM | 7 | 560 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 760 |
| 89 | 307 | ELEC ROOM | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 90 | 308 | GIRLS TOILET | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 91 | 309 | WATER ROOM | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 92 | 310 | STAS ROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |
| 93 | 311A | LAB | 14 | 1120 | 11 | 440 | 1 | 1920 | 26 | 3120 | | | | | | 6600 |
| 94 | 312 | BOYS TOILET | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 95 | 313 | WATER PLANT | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 96 | 314 A&B | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 1 | 120 | | | | | | 840 |
| 97 | 315 | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 720 |
| 98 | 316 | CLASSROOM | 5 | 400 | 6 | 240 | 0 | 0 | 0 | 0 | | | | | | 640 |
| 99 | | SEMINAR HALL | 9 | 720 | 7 | 280 | 2 | 3840 | 0 | 0 | | | | | | 4840 |
| 100 | | PG CLASS | 2 | 160 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 200 |
| 101 | 320&321 | FACULTY ROOM | 5 | 400 | 6 | 240 | 0 | 0 | 0 | 0 | | | | | | 640 |
| 102 | 322 | CLASSROOM | 2 | 160 | 2 | 80 | 0 | 0 | 0 | 0 | | | | | | 240 |
| 103 | 323 | TUTORIAL | 0 | 0 | 3 | 120 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 104 | 324 | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 720 |
| 105 | 325 | CLASSROOM | 5 | 400 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 560 |
| 106 | 326 | CLASSROOM | 5 | 400 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 560 |
| 107 | 327 | HOD | 1 | 80 | 2 | 80 | 0 | 0 | 0 | 0 | | | | | | 160 |
| 108 | 328 | BOYS TOILET | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 109 | 329 | WATER ROOM | 0 | 0 | 1 | 40 | 1 | 1920 | 0 | 0 | | | | | | 1960 |
| 110 | 330 | GIRLS TOILET | 1 | 80 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 120 |
| 111 | 331 | ELEC ROOM | 0 | 0 | 1 | 40 | 0 | 0 | 0 | 0 | | | | | | 40 |
| 112 | 332 | CLASSROOM | 9 | 720 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 880 |
| 113 | 333 | CLASSROOM | 7 | 560 | 4 | 160 | 0 | 0 | 0 | 0 | | | | | | 720 |
| 114 | 334 | CLASSROOM | 7 | 560 | 2 | 80 | 0 | 0 | 0 | 0 | | | | | | 640 |
| 115 | 335 | COMMON ROOM(BOYS) | 7 | 560 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 760 |
| 116 | 336&337 | RECORD ROOM | 2 | 160 | 2 | 80 | 0 | 0 | 0 | 0 | | | | | | 240 |
| 117 | 338A | CLASSROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |
| 118 | 338B | CLASSROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |
| 119 | 339A | CLASSROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |
| 120 | 339B | CLASSROOM | 9 | 720 | 5 | 200 | 1 | 1920 | 1 | 120 | | | | | | 2960 |
| 121 | 340A | CLASSROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |

| | | | | | | | | | | | | | | | | |
|-----|------|--------------------|------------|--------------|------------|--------------|-----------|---------------|------------|--------------|-----------|------------|--|-----------|--------------|---------------|
| 122 | 340B | CLASSROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |
| 123 | 341A | CLASSROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |
| 124 | 341B | CLASSROOM | 9 | 720 | 5 | 200 | 0 | 0 | 0 | 0 | | | | | | 920 |
| 125 | | CS/IT LAB COMBINED | 36 | 2880 | 23 | 920 | 1 | 1920 | 1 | 120 | | | | | | 5840 |
| | | | 715 | 57240 | 747 | 30080 | 54 | 103680 | 355 | 42600 | 11 | 671 | | 59 | 17560 | 251831 |

| EQUIPMENT | NO.OF | LOAD IN WATT PER UNIT | LOAD IN WATT |
|----------------------|--------------|------------------------------|---------------------|
| FAN - | 715 | 80 W | 57,240 |
| LIGHTS - | 747 | 40W,250W | 30,080 |
| PC | 355 | 120W | 42,600 |
| A.C. | 54 | 1920W | 103,680 |
| MOTOR | 11 | AS PER RATING | 671 |
| OTHER MACHINE | 59 | AS PER RATING | 17,560 |
| TOTAL | 1941 | | 251831 |

2. Energy sub metering



3. On site renewable energy

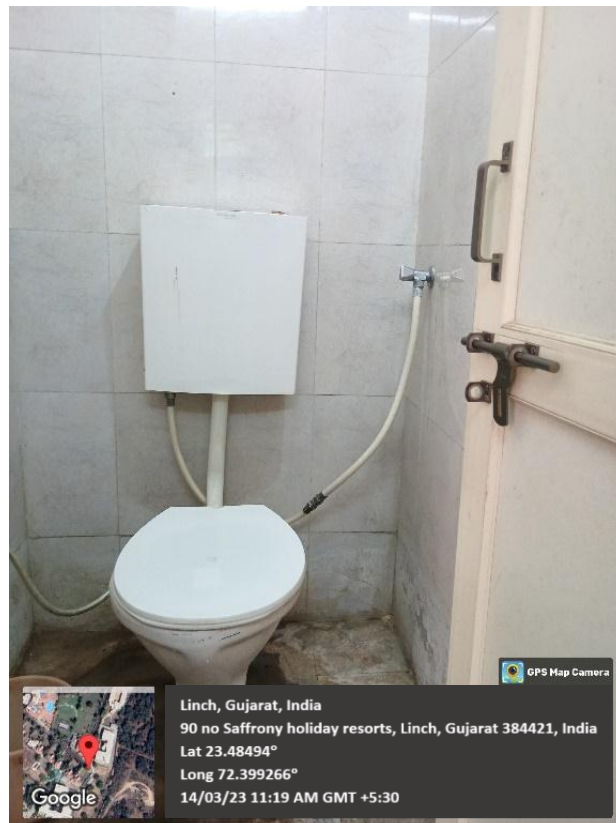
- Institute has solar generation capacity 50.26 KVA and UGVCL electricity consumption demand 153 KVA. Total electricity consumption permission is 203.26 KVA.
- In the below table, three years of monthly solar generation and electricity consumption data is given.

| MONTH | SOLAR GENERATION (kWh) | Electricity consumption (kWh) |
|-------------------|------------------------|-------------------------------|
| Jan-21 | 7251 | 4246 |
| Feb-21 | 8517 | 4068 |
| Mar-21 | 7903 | 6994 |
| Apr-21 | 7200 | 6198 |
| May-21 | 5349 | 4938 |
| Jun-21 | 3797 | 5506 |
| Jul-21 | 5214 | 7288 |
| Aug-21 | 4672 | 7194 |
| Sep-21 | 7260 | 7174 |
| Oct-21 | 6289 | 7076 |
| Nov-21 | 6012 | 5607 |
| Dec-21 | 6973 | 7343 |
| Total 2021 | 76438 | 73632 |
| Jan-22 | 7017 | 8111 |
| Feb-22 | 8100 | 6022 |
| Mar-22 | 8101 | 9928 |
| Apr-22 | 7674 | 15526 |
| May-22 | 6734 | 20183 |
| Jun-22 | 4649 | 21467 |
| Jul-22 | 4767 | 17973 |
| Aug-22 | 6349 | 17448 |
| Sep-22 | 7341 | 15997 |
| Oct-22 | 6750 | 14849 |
| Nov-22 | 6890 | 11432 |
| Dec-22 | 7093 | 10936 |
| Total 2022 | 81465 | 169872 |

HEALTH AND HYGIENE

1. Toilet facilities

- Institute has sufficient housekeeping staff and ensure that SOP is followed by them.



2. Drinking water facility

- Institute has installed 2 RO system (500 Liter/hour and 250 Liter/hour). RO with the capacity of 500 liter/hour is installed at Wing-A second floor and RO with the capacity of 250 liter/hour is installed at B-wing terrace. RO with the capacity of 500 liter/hour is provide water to girls and boys hostel and 250 liter/hour provides water to the main building.



3. Access to healthy food

- Institute has their own catering service
- Institute is FSSAI certified
- Institute has capacity of cooking of 100 students
- Fresh vegetables are being used for cooking



Form C
Government of Gujarat
Food And Drugs Control Administration
Food Safety and Standards Authority of India
License under FSS Act, 2006



License Number: **10717014000509**



1. Name & Registered Office address of Licensee: M/s - Jay Jalaram Education Trust
Saffron Park, Mehsana-Ahmedabad
Highway, At-Linch, Mahesana, Gujarat-384001
2. Address of Authorized Premises: Saffron Park, Mehsana-Ahmedabad
Highway, At-Linch, Mahesana, Mahesana,
Gujarat-384001
3. Kind of Business: Food Services - Club/Canteen
4. Dairy Business Details: No
5. Category of License: **State License**

This license is granted under and is subject to the provisions of FSS Act, 2006 all of which must be complied with by the licensee.

Place: Mahesana **Designated Officer**
 Issued On: 18-08-2023 (Renewal License)
 Valid Upto: 26-09-2024 (For details, refer Annexure)

Annexures:

1. [Product Annexure](#)
2. [Validity Annexure](#)
3. [Non-Form C Annexure](#)
4. [Conditions Of License](#)

Note:

1. **Application for renewal of License can be filed as early as 180 days prior to expiry date of License. You can file application for renewal or modification of License by login into FSSAI's Food Safety Compliance System(<https://foscoc.fssai.gov.in>) with your user id and password or call us at 1800112100 for any clarification.**
2. **This License is only to commence or carry on food businesses and not for any other purpose.**
3. **This is computer generated license and doesn't require any signature or stamp by authority.**

Page 1 of 6

4. Sports amenities

- Institute has following sports facilities and also have indoor sports facilities.

| Sr. No. | Location | Court | No of Courts |
|---------|----------|------------|--------------|
| 1 | Campus | Cricket | 1 |
| 2 | | Kho-Kho | 1 |
| 3 | | Volleyball | 1 |
| 4 | | Kabaddi | 1 |

SUSTAINABLE RESOURCE UTILIZATION

1. Waste disposal

- Canteen raw fruit and vegetable remaining and Food leftovers are collected separately and all this Food waste is transported out as cattle feed.



ANALYSIS REPORT

1. Drinking water



| | |
|--|--|
| Soni Group of Technologies – Environmental Testing Laboratory | |
| Test Report | F/OPN/07 Issue No.: 03 Page 1 of 3 |
| Chemical Analysis Of Water / Waste water | |

| | | | |
|--|---|---|--------------------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr.Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Water |
| Report No. | W/03/040/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Drinking Water | Sampling Location | RO Water |
| Date of Sampling | 15/03/2023 | Quantity / Nos. of Samples | 5.0 L / 4 No. |
| Type of sampling | Grab | Sampling By | Jaydeep Prajapati |
| Sample Receipt Date | 15/03/2023 | Sampling Procedure | IS 3025 & APHA 23 rd Edi. |
| Location of test performed | At Laboratory | Sample ID | W/03/040 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Ambient |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 20/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit as IS 10500 (2012) | |
|---------|---|------|---|---------------|--------------------------|-------------------|
| | | | | | Acceptable limit | Permissible Limit |
| 1. | pH @ 25°C | -- | IS 3025 (Part 11) 2022 | 7.4 | 6.5 – 8.5 | No Relaxation |
| 2. | Turbidity | NTU | 2130 B APHA 23 rd Edition 2017 | B.D.L. (DL=1) | 1 | 5 |
| 3. | Total Dissolved Solids | mg/L | 2540 C APHA 23 rd Edition 2017 | 180 | 500 | 2000 |
| 4. | Chloride as Cl | mg/L | IS 3025 (Part 32) 1988 | 29.0 | 250 | 1000 |
| 5. | Sulphate as SO ₄ ²⁻ | mg/L | 4500 SO ₄ ²⁻ E APHA 23 rd Edition 2017 | 16.9 | 200 | 400 |
| 6. | Total Hardness as CaCO ₃ | mg/L | 2340 C APHA 23 rd Edition 2017 | 30 | 200 | 600 |
| 7. | Calcium as Ca ⁺² | mg/L | 3500Ca B APHA 23 rd Edition 2017 | 8.02 | 75 | 200 |
| 8. | Magnesium as Mg ⁺² | mg/L | 3500 Mg B APHA 23 rd Edition 2017 | 2.43 | 30 | 100 |
| 9. | Alkalinity as CaCO ₃ | mg/L | 2320 B APHA 23 rd Edition 2017 | 52.0 | 200 | 600 |

| | |
|--|---|
| Mr. Jay Dhobi Chemist Tested By | Mr. Sandip Patel Technical Manger Reviewed and Approved By |
|--|---|

Soni Group of Technologies – Environmental Testing Laboratory
Test Report


 F/OPN/07
 Issue No.: 03
 Page 2 of 3

Chemical Analysis Of Water / Waste water

| | | | |
|--|---|---|--------------------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr.Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Water |
| Report No. | W/03/040/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Drinking Water | Sampling Location | RO Water |
| Date of Sampling | 15/03/2023 | Quantity / Nos. of Samples | 5.0 L / 4 No. |
| Type of sampling | Grab | Sampling By | Jaydeep Prajapati |
| Sample Receipt Date | 15/03/2023 | Sampling Procedure | IS 3025 & APHA 23 rd Edi. |
| Location of test performed | At Laboratory | Sample ID | W/03/040 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Ambient |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 20/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit as IS 10500 (2012) | |
|---------|--------------------------------|--------------|--|-----------------|--------------------------|-------------------|
| | | | | | Acceptable limit | Permissible Limit |
| 10. | Fluoride as F | mg/L | 4500 F- D APHA 23 rd Edition 2017 | B.D.L. (DL=0.2) | 1.0 | 1.5 |
| 11. | Iron as Fe | mg/L | 3500 Fe B APHA 23 rd Edition 2017 | B.D.L. (DL=0.1) | 0.3 | No Relaxation |
| 12. | Phenolic Compound | mg/L | 5530 D APHA 23 rd Edition 2017 | B.D.L. (DL=0.1) | 0.001 | 0.002 |
| 13. | Colour | Pt. Co. Unit | 2120 B APHA 23 rd Edition 2017 | Colorless | 05 | 15 |
| 14. | Copper (as Cu) | mg/L | IS 3025 Part 42:1992 | B.D.L.(DL=0.04) | 0.05 | 1.5 |
| 15. | Zinc (as Zn) | mg/L | 3111 B APHA 23 rd Edition 2017 | B.D.L.(DL=0.25) | 05 | 15 |
| 16. | Boron (as B) | mg/L | IS 3025 Part 57:2005 | B.D.L. (DL=0.2) | 0.5 | 1.0 |
| 17. | Sulphide (as H ₂ S) | mg/L | IS 3025 Part 29 | B.D.L. (DL=0.2) | 0.5 | No Relaxation |

| | | |
|---|---|--|
|  Mr. Jay Dhobi Chemist Tested By |  |  Mr. Sandip Patel Technical Manger Reviewed and Approved By |
|---|---|--|

Soni Group of Technologies – Environmental Testing Laboratory
Test Report

 F/OPN/07
 Issue No.: 03
 Page 3 of 3

Chemical Analysis Of Water / Waste water




| | | | |
|--|--|---|--------------------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr.Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435 | | |
| Discipline | Chemical | Group | Water |
| Report No. | W/03/040/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Drinking Water | Sampling Location | RO Water |
| Date of Sampling | 15/03/2023 | Quantity / Nos. of Samples | 5.0 L / 4 No. |
| Type of sampling | Grab | Sampling By | Jaydeep Prajapati |
| Sample Receipt Date | 15/03/2023 | Sampling Procedure | IS 3025 & APHA 23 rd Edi. |
| Location of test performed | At Laboratory | Sample ID | W/03/040 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Ambient |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 20/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit as IS 10500:2012 | |
|---------|-------------------------------|--------|---------------------------|-----------------|--|-------------------|
| | | | | | Acceptable limit | Permissible Limit |
| 18. | Ammonia (as Total Ammonia-N) | mg/L | IS 3025 Part 34:2009 | B.D.L. (DL=0.3) | 0.5 | No Relaxation |
| 19. | Residual Free Chlorine | mg/L | IS 3025 Part 26:2021 | B.D.L. (DL=0.2) | Min 0.2 | Min 1.0 |
| 20. | Hexavalent Chromium (as Cr) | mg/L | IS 3025 (Part 52) : 2003 | BDL(DL=0.01) | 0.05 | No Relaxation |
| 21. | Odour | --- | IS 3025 Part 5 : 2018 | Agreeable | Agreeable | Agreeable |
| 22. | Taste | --- | IS 3025 Part 7 & 8 : 2017 | Agreeable | Agreeable | Agreeable |
| 23. | Nitrate (as NO ₃) | mg/L | IS 3025 Part 34:2009 | 1.50 | 45 | No Relaxation |
| 24. | E. Coli | /100mL | IS 5887 Part-1:1976 | Absent | Shall not be detectable in any 100 mL sample | |

Remarks →

- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- B.D.L. = Below Detection Limit, D.L. = Detection Limit.
- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Opinion & Interpretation is not given. Decision rule is not applicable.

| | | |
|---|---|--|
|  Mr. Jay Dhobi Chemist Tested By |  |  Mr. Sandip Patel Technical Manger Reviewed and Approved By |
|---|---|--|

----- End of Test Report -----

2. Bore well water

Soni Group of Technologies – Environmental Testing Laboratory

Test Report

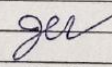

F/OPN/07
Issue No.: 03
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Chemical Analysis Of Water / Waste water

| | | | |
|--|--|---|--------------------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr. Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Water |
| Report No. | W/03/039/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Ground Water | Sampling Location | Borewell-1 |
| Date of Sampling | 15/03/2023 | Quantity / Nos. of Samples | 5.0 L / 1.0 No. |
| Type of sampling | Grab | Sampling By | Client |
| Sample Receipt Date | 15/03/2023 | Sampling Procedure | IS 3025 & APHA 23 rd Edi. |
| Location of test performed | At Laboratory | Sample ID | W/03/039 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Ambient |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 20/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit |
|---------|---|------|---|----------------|---------------|
| 1. | pH @ 25°C | -- | IS 3025 (Part 11) 2022 | 7.4 | Not Specified |
| 2. | Turbidity | NTU | 2130 B APHA 23 rd Edition 2017 | B.D.L. (DL=1) | Not Specified |
| 3. | Total Dissolved Solids | mg/L | 2540 C APHA 23 rd Edition 2017 | 1822 | Not Specified |
| 4. | Total Suspended Solids | mg/L | 2540 D APHA 23 rd Edition 2017 | B.D.L. (DL=10) | Not Specified |
| 5. | Chloride as Cl | mg/L | IS 3025 (Part 32) 1988 | 345 | Not Specified |
| 6. | Sulphate as SO ₄ ²⁻ | mg/L | 4500 SO ₄ ²⁻ E APHA 23 rd Edition 2017 | 93.1 | Not Specified |
| 7. | Total Hardness as CaCO ₃ | mg/L | 2340 C APHA 23 rd Edition 2017 | 910 | Not Specified |
| 8. | Calcium as Ca | mg/L | 3500 Ca B APHA 23 rd Edition 2017 | 188 | Not Specified |
| 9. | Magnesium as Mg ⁺² | mg/L | 3500 Mg B APHA 23 rd Edition 2017 | 107 | Not Specified |

| | |
|---|---|
|  |  |
| Mr. Jay Dhobi | Mr. Sandip Patel |
| Chemist | Technical Manger |
| Tested By | Reviewed and Approved By |

Soni Group of Technologies – Environmental Testing Laboratory
Test Report

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Chemical Analysis Of Water / Waste water

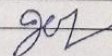
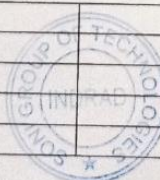

| | | | |
|--|--|---|--------------------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr. Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Water |
| Report No. | W/03/039/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Ground Water | Sampling Location | Borewell-1 |
| Date of Sampling | 15/03/2023 | Quantity / Nos. of Samples | 5.0 L / 1.0 No. |
| Type of sampling | Grab | Sampling By | Client |
| Sample Receipt Date | 15/03/2023 | Sampling Procedure | IS 3025 & APHA 23 rd Edi. |
| Location of test performed | At Laboratory | Sample ID | W/03/039 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Ambient |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 20/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit |
|---------|---------------------------------|------|--|---------|---------------|
| 10. | Alkalinity as CaCO ₃ | mg/L | 2320 B APHA 23rd Edition 2017 | 490 | Not Specified |
| 11. | Fluoride as F | mg/L | 4500 F- D APHA 23 rd Edition 2017 | 0.75 | Not Specified |
| 12. | Iron as Fe | mg/L | 3500 Fe B APHA 23 rd Edition 2017 | 1.13 | Not Specified |
| 13. | Reactive Silica | mg/L | 4500 SiO ₂ C APHA 23 rd Edition 2017 | 9.17 | Not Specified |

Remarks →

- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- B.D.L. = Below Detection Limit, D.L. = Detection Limit.
- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Opinion & Interpretation is not given.
- Decision rule is not applicable.

| | | |
|---|---|--|
|  Mr. Jay Dhobi Chemist Tested By |  |  Mr. Sandip Patel Technical Manger Reviewed and Approved By |
|---|---|--|

----- End of Test Report -----

3. Ambient

| | |
|--|--|
| Soni Group of Technologies – Environmental Testing Laboratory | |
| Test Report | F/OPN/06 Issue No.: 02 Page 1 of 1 |
| Ambient Air Quality | |

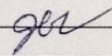

| | | | |
|--|--|---|--------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr. Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Atmospheric Pollution |
| Report No. | AA/03/035/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Ambient Air | Sampling Location | Main Building |
| Date and time of sampling start | 14/03/2023 10:22 hrs. | Date and time of sampling finish | 15/03/2023 10:22 hrs. |
| Sample Receipt Date | 15/03/2023 | Sampling By | Jaydeep Prajapati |
| Sampling Procedure | IS 5182 | Sample ID | AA/03/035 |
| Location of test performed | At Laboratory | Wind Direction | NEE |
| | | Wind Speed (m/s) | 1-4 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Clear |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 16/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit(as per GPCB) |
|---------|---|-------------------|-------------------------|---------|--------------------|
| 1. | Particulate Matter (PM ₁₀) | µg/m ³ | IS 5182 (Part 23): 2006 | 65.7 | 100 |
| 2. | Particulate Matter (PM _{2.5}) | µg/m ³ | IS 5182 (Part 24): 2019 | 32.3 | 60 |
| 3. | Sulphur Dioxide (SO ₂) | µg/m ³ | IS 5182 (Part 2): 2001 | 12.8 | 80 |
| 4. | Oxides of Nitrogen (NO _x) | µg/m ³ | IS 5182 (Part 6): 2006 | 19.0 | 80 |

Remarks →

- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- Opinion & Interpretation is not given. Decision rule is not applicable.

| | |
|---|--|
|  Mr. Jay Dhobi Chemist Tested By |  Mr. Sandip Patel Technical Manager Reviewed and Approved By |
|---|--|

----- End of Test Report -----

Soni Group of Technologies – Environmental Testing Laboratory

Test Report

F/OPN/06
Issue No.: 02
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Ambient Air Quality

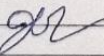

| | | | |
|--|--|---|--------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr. Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Atmospheric Pollution |
| Report No. | AA/03/038/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Ambient Air | Sampling Location | Nr. Canteen Area |
| Date and time of sampling start | 14/03/2023 11:32 hrs. | Date and time of sampling finish | 15/03/2023 11:32 hrs. |
| Sample Receipt Date | 15/03/2023 | Sampling By | Jaydeep Prajapati |
| Sampling Procedure | IS 5182 | Sample ID | AA/03/038 |
| Location of test performed | At Laboratory | Wind Direction | NEE |
| | | Wind Speed (m/s) | 1-4 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Clear |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 16/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit(as per GPCB) |
|---------|---|-------------------|-------------------------|---------|--------------------|
| 1. | Particulate Matter (PM ₁₀) | µg/m ³ | IS 5182 (Part 23): 2006 | 64.8 | 100 |
| 2. | Particulate Matter (PM _{2.5}) | µg/m ³ | IS 5182 (Part24):2019 | 30.1 | 60 |
| 3. | Sulphur Dioxide (SO ₂) | µg/m ³ | IS 5182 (Part 2): 2001 | 14.0 | 80 |
| 4. | Oxides of Nitrogen (NO _x) | µg/m ³ | IS 5182 (Part 6): 2006 | 22.6 | 80 |

Remarks →

- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- Opinion & Interpretation is not given. Decision rule is not applicable.

| | |
|---|---|
|  |  |
| Mr. Jay Dhobi Chemist Tested By | Mr. Sandip Patel Technical Manager Reviewed and Approved By |

----- End of Test Report -----

Soni Group of Technologies – Environmental Testing Laboratory
Test Report

 F/OPN/06
 Issue No.: 02
 Page 1 of 1

Ambient Air Quality

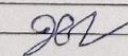

| | | | |
|--|--|---|--------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr. Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Atmospheric Pollution |
| Report No. | AA/03/037/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Ambient Air | Sampling Location | Nr.Main Gate |
| Date and time of sampling start | 14/03/2023 11:11 hrs. | Date and time of sampling finish | 15/03/2023 11:11 hrs. |
| Sample Receipt Date | 15/03/2023 | Sampling By | Jaydeep Prajapati |
| Sampling Procedure | IS 5182 | Sample ID | AA/03/037 |
| Location of test performed | At Laboratory | Wind Direction | NEE |
| | | Wind Speed (m/s) | 1-4 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Clear |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 16/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit(as per GPCB) |
|---------|---|-------------------|-------------------------|---------|--------------------|
| 1. | Particulate Matter (PM ₁₀) | µg/m ³ | IS 5182 (Part 23): 2006 | 60.9 | 100 |
| 2. | Particulate Matter (PM _{2.5}) | µg/m ³ | IS 5182 (Part24):2019 | 27.4 | 60 |
| 3. | Sulphur Dioxide (SO ₂) | µg/m ³ | IS 5182 (Part 2): 2001 | 13.8 | 80 |
| 4. | Oxides of Nitrogen (NO _x) | µg/m ³ | IS 5182 (Part 6): 2006 | 21.3 | 80 |

Remarks →

- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- Opinion & Interpretation is not given. Decision rule is not applicable.

| | |
|---|---|
|  |  |
| Mr. Jay Dhobi | Mr. Sandip Patel |
| Chemist | Technical Manager |
| Tested By | Reviewed and Approved By |

----- End of Test Report -----

Soni Group of Technologies – Environmental Testing Laboratory
Test Report

 F/OPN/06
 Issue No.: 02
 Page 1 of 1

Ambient Air Quality

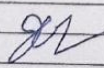

| | | | |
|--|--|---|--------------------------|
| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr. Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Discipline | Chemical | Group | Atmospheric Pollution |
| Report No. | AA/03/036/22-23 | Date of Issue | 21/03/2023 |
| Sample Description | Ambient Air | Sampling Location | Nr. Admission building |
| Date and time of sampling start | 14/03/2023 10:42 hrs. | Date and time of sampling finish | 15/03/2023 10:42 hrs. |
| Sample Receipt Date | 15/03/2023 | Sampling By | Jaydeep Prajapati |
| Sampling Procedure | IS 5182 | Sample ID | AA/03/036 |
| Location of test performed | At Laboratory | Wind Direction | NEE |
| | | Wind Speed (m/s) | 1-4 |
| Environmental Condition during testing | 25 ± 2 °C | Environmental Condition during sampling | Clear |
| Condition of sample during receipt | Satisfactory | Sampling plan | E/SYS/09 |
| Test Start Date | 15/03/2023 | Test Completion date | 16/03/2023 |

Test Results

| Sr. No. | Parameters | Unit | Test Method | Results | Limit(as per GPCB) |
|---------|---|-------------------|-------------------------|---------|--------------------|
| 1. | Particulate Matter (PM ₁₀) | µg/m ³ | IS 5182 (Part 23): 2006 | 63.2 | 100 |
| 2. | Particulate Matter (PM _{2.5}) | µg/m ³ | IS 5182 (Part 24): 2019 | 29.5 | 60 |
| 3. | Sulphur Dioxide (SO ₂) | µg/m ³ | IS 5182 (Part 2): 2001 | 12.4 | 80 |
| 4. | Oxides of Nitrogen (NO _x) | µg/m ³ | IS 5182 (Part 6): 2006 | 21.0 | 80 |

Remarks →

- Test Report shall not be reproduced except in full, without written approval of the Laboratory.
- Sample will be disposed after 15 days from the date of issue of the report unless agreed with the customer.
- Opinion & Interpretation is not given. Decision rule is not applicable.

| | |
|---|---|
|  |  |
| Mr. Jay Dhobi | Mr. Sandip Patel |
| Chemist | Technical Manager |
| Tested By | Reviewed and Approved By |

----- End of Test Report -----



4. Noise and Lux

Soni Group of Technologies – Environmental Testing Laboratory

Test Report / Certificate



Noise Level Monitoring

| Name and Address of Customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr.Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
|--|--|---------------------------|-------------|
| Report / Certificate No. | N/03/041/22-23 | Date of Issue | 21/03/2023 |
| Time of Sampling | 10:00 to 17:30 Hrs. | Sample Identification no. | N/03/041 |
| Sample description | Noise Level | | |
| Sampling By | Jaydeep Prajapati | | |
| Date of Sampling | 15/03/2023 | | |
| Sampling Method | IS 11702 | | |
| Sampling Instrument | Sound Level Meter | | |
| Test Results | | | |
| Sr. No | Name of Location | DAY TIME MONITORING | |
| | | Day Time | |
| | | dB(A) | Norms dB(A) |
| 1. | Nr. Main Gate | 65.8 | 75 |
| 2. | Nr.Admin Building | 63.4 | 75 |
| 3. | Class Room- 115 | 56.1 | 75 |
| 4. | Class Room- 144 | 59.4 | 75 |
| 5. | Class Room- 135 | 58.7 | 75 |
| Remarks → | | | |
| <ul style="list-style-type: none"> • Test results relates to the sample tested only. • Test Report shall not be reproduced except in full, without written approval of the Laboratory. | | | |

| | |
|---|---|
|  |  |
| Mr. Jay Dhobi Chemist Tested By | Mr. Sandip Patel Technical Manager Reviewed and Approved By |

----- End of Test Report -----

| Soni Group of Technologies – Environmental Testing Laboratory | | | |
|--|---|---------------------------|-------------------------------------|
| Test Report / Certificate | | | Page 1 of 1 |
| Lux level Monitoring | | | |
| Name and address of customer | M/s. S.P.B. Patel engineering college (Saffrony), Nr.Shanku's Water Park, Ahmedabad – Mehsana Highway, Linch, Gujarat - 384435. | | |
| Report / Certificate No. | SGT/L/03/042/22-23 | Date of Issue | 21/03/2023 |
| Time of Sampling | 10:30 Hrs to 17:40 Hrs | Sample Identification no. | SGT/L/03/042 |
| Sample description | Lux Level | | |
| Sampling By | Jaydeep Prajapati | | |
| Date of Sampling | 15/03/2023 | | |
| Sampling Method | IS 10894:1984 | | |
| Sampling Instrument | LUXMeter | | |
| Test Results | | | |
| Sr. No | Name of Location | OBSERVATION | Limits (As per IS 10894:1984) |
| | | Day Time LUX | |
| 1. | Class Room- 135 | 510 | 300 |
| 2. | Class Room- 115 | 490 | 300 |
| 3. | Class Room- 144 | 525 | 300 |
| 4. | Staff Room | 320 | 150 |
| 5. | Class Room- 110 | 495 | 300 |
| Remarks → | | | |
| <ul style="list-style-type: none"> • Test results relates to the sample tested only. • Test Report shall not be reproduced except in full, without written approval of the Laboratory. | | | |

| | |
|---|---|
|  |  |
| Mr. Jay Dhobi | Mr. Sandip Patel |
| Chemist | Technical Manager |
| Tested By | Reviewed and Approved By |

----- End of Test Report -----

OBSERVATIONS OF THE CURRENT AUDIT

- Institute has provided flow meter for the measurement of water consumption. however, institute has no provision for the treatment and disposal of wastewater generation. We are suggesting to install sewage treatment plant, treat the wastewater and reuse the treated water into gardening. This way institute can reduce the usage of ground water.
- Institute can reuse the R.O reject after treatment.
- Institute has D. G. Set (200 KVA) and also provided the stack, however it is not provided as per the legal requirement.
- Institute can practice waste segregation, and organic waste turns into fertilizer by vermi composting or any other suitable treatment.
- Institute uses R22 Gas for AC, it is recommended to replace the gas which has the lesser ozone depleting potential (ODP) value and as per regulatory requirement.

CERTIFICATE



CERTIFICATE OF GREEN AUDIT

This is to certify that **S.B.P. Patel Engineering College, Mehsana (Gujarat)** has conducted a detailed Green Audit of their campus for the academic year 2022-2023 and has submitted the necessary data and credentials for scrutiny. The activities and measures carried out by the college has been verified based on the field visit and reports submitted and were found to be **Good**. The efforts taken by the faculty and students Towards green environment and sustainability are highly appreciated and commendable.

For, Soni Group of Technologies


Authorized Signatory

Note: This certificate is issued on 30th March 2023 & valid up to year 2026.

CERTIFICATE OF ENVIRONMENTAL AUDIT

This is to certify that **S.B.P. Patel Engineering College, Mehsana (Gujarat)** has conducted a detailed Environmental Audit of their campus for the academic year 2022-2023 and has submitted the necessary data and credentials for scrutiny. The activities and measures carried out by the college has been verified based on the field visit and reports submitted and were found to be **Good**. The efforts taken by the Management, faculty and students for the care of Environment, Water conservation, Waste water & Plastic waste management and recycling & reuse of waste are highly appreciated and commendable.

For, Soni Group of Technologies



Authorized Signatory

Note: This certificate is issued on 30th March 2023 & valid up to year 2026.

CERTIFICATE OF ENERGY AUDIT

This is to certify that **S.B.P. Patel Engineering College, Mehsana (Gujarat)** has conducted a detailed Energy Audit of their campus for the academic year 2022-2023 and has submitted the necessary data and credentials for scrutiny. The activities and measures carried out by the college has been verified based on the field visit and reports submitted and were found to be **Good**. The efforts taken by the Management, faculty and students towards Energy Conservation and use of Renewable Energy are highly appreciated and commendable.

For, Soni Group of Technologies



Authorized Signatory

Note: This certificate is issued on 30th March 2023 & valid up to year 2026.



GUJARAT POLLUTION CONTROL BOARD
Paryavaran Bhavan
Sector - 10 A, Gandhinagar - 382 010.
Environment Audit Cell

R.P.A.D

10 JAN 2022

No. GPCB/EA-325/620722

To,
Soni Group of Technologies
125, KamlaAmrut Industrial Park,
Opp. Torrent Pharmaceuticals Ltd.,
Ahmedabad-Mehsan Highway,
Village: Indrad-382715, Ta. Kalol,
Dist. Mehsana

Sub: - Renewal of Recognition as Schedule- II Environmental Auditor.

Sir,

This refers to your application for renewal of the recognition as Schedule- II Environmental Auditor and subsequent interview by Environment Audit Committee members. It is recommended by the Environment Audit Committee members, to renew the recognition of your firm as Schedule-II Environmental Auditor for carrying out the Environmental Audit under Environment Audit Scheme with following conditions.

- 1) Recognition is valid upto 31/12/2023.
- 2) You shall have maximum One team for the Environment Audit.
- 3) You shall carry out maximum 15 nos. of Environment Audit in a year.
- 4) Team members shall be as under :

| Sr. No. | Name | Designation |
|---------|----------------------|----------------------|
| 1 | Ms. Shanam Patel | Environment Engineer |
| 2 | Mr. Love Patadiya | Chemical Engineer |
| 3 | Mr. Chirag Prajapati | Chemist |
| 4 | Mr. Sandip Patel | Microbiologist |

- 5) You shall prepare and submit the Environment Audit report and to comply the conditions for Environment Auditors as per the Hon'ble High Court order dated 20/12/1996, 13/03/1997, 16/09/1999, and also the Guidelines prepared by

Clean Gujarat Green Gujarat
An ISO 9001: 2008 & ISO 14001: 2004 Certified Organization

P.T.O

STATE POLLUTION CONTROL BOARD

ENVIRONMENT CELL

Gujarat Pollution Control Board in this regard, for the Environment Audit Scheme along with the Adequacy and Efficacy certificates as per prescribed format.

- 6) Environment Audit Report shall be submitted in prescribed format.
- 7) You shall apply for renewal of recognition as Environmental Auditor 3 months before expiry of the recognition with the scrutiny fees to this Board.
- 8) This recognition is subject to periodic evaluation of your facility and subject to change based on performance.
- 9) In case of any change in man power, team members, laboratory infrastructure, laboratory address etc., without prior appraisal of Environment Audit Committee and prior approval of Board, this recognition will automatically stands cancelled.

This letter is issued with the permission of competent authority.

For and on behalf of GPCB,



(Rajeshkumar Parmar)
Environment Engineer
Environment Audit Cell

Clean Gujarat Green Gujarat
An ISO 9001: 2008 & ISO 14001: 2004 Certified Organization

P.T.O



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

**SONI GROUP OF TECHNOLOGIES - ENVIRONMENTAL
TESTING LABORATORY**

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

125, KAMLA AMRUT INDUSTRIAL PARK, KADI, MAHESANA, GUJARAT, INDIA

in the field of

TESTING

Certificate Number: TC-8508

Issue Date: 16/05/2022

Valid Until: 15/05/2024

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : SONI GROUP OF TECHNOLOGIES

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer