

Environment Audit Certificate (As per Green Building Parameters)

The study is conducted as per Indian and International Green Building Standards initiated in the capacity of an Accredited & Certified Green Building Professional

It is awarded for **2021-2022 and 2022-2023** to the Esteemed Institution

(Analysed for 2 years and extended validity for 1 year, thus total 3 years)

Shikshan Prasarak Sanstha's

P. V. P. Mahavidyalaya Kavathe Mahankal

Vidyanagar, Kavathe Mahankal Tal-Kavathe Mahankal, Dist-Sangli Pin-416405, Maharashtra, India

(Site visit held on Monday, 22 May 2023)

As part of the Institution's initiatives for a Healthy & Sustainable Institute the audit was conducted.
We appreciate the immense efforts taken by Staff and students towards the Environment Protection and Conservation.

Issued on **Monday, 22 May 2023** and valid till **30 April 2024**


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ENVIRONMENT AUDIT

STUDY PERIOD (TWO YEARS) 2021 – 2022 & 2022 - 2023

Sustainability study
AUDIT REPORT

Studied for

Shikshan Prasarak Sanstha's

**P. V. P. Mahavidyalaya
Kavathe Mahankal**

Vidyanagar, Kavathe Mahankal Tal-Kavathe Mahankal,
Dist-Sangli Pin-416405, Maharashtra, India

Studied in the capacity of

**Accredited and Certified
Green Building Professional**



Studied by

Website: <https://thegreenviosolutions.co.in/>

Email: greenviosolutions@gmail.com

Valid till **April 2024**

Disclaimer

The Audit Team has prepared this report for the **Shikshan Prasarak Sanstha's P.V.P.Mahavidyalaya Kavathe Mahankal** located at Vidyanagar, Kavathe Mahankal Tal-Kavathe Mahankal, Dist-Sangli Pin-416405, Maharashtra, India based on input data submitted by the College analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National and International Standards; the report has been generated based on comparative analysis of the existing facilities and the prerequisites formulated by various standards. The inputs derived are a result of the inspection and research. These will further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase wise or as a whole depending on the decision taken by the Hon'ble Management and College. The warranty or undertaking, expressed or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

The audit is a thorough study based on the inspection and investigation of data collected over a period of time and should not be used for any legal action. This is the property of Greenvio Solutions and should not be copied or regenerated in any form.

The Report is prepared by the Team of Greenvio Solutions under their brand and department – Sustainable Academe as Consultancy firm with the Project Head - Ar. Nahida Shaikh who is as an Accredited and Certified Green Building Professional-Architect. Green Building consultancy is her forte and she is one of the most sought after names when it comes to providing excellent quality services within the stipulated time frame.

The Study is conducted in capacity of Accredited & Certified Green Building Professional with extensive experience.

Greenvio Solutions

Developing Healthy and Sustainable Environments

We are an Environmental and Architectural Design Consultancy firm

Sustainable Academe is our department for conducting Audits

Palghar District, Maharashtra- 401208

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Acknowledgement

The Audit Assessment Team thanks the **Shikshan Prasarak Sanstha's P.V.P.Mahavidyalaya Kavathe Mahankal, Maharashtra, India** for assigning this important work of Environment Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to **Mr. Balasaheb Aanandrao Shinde**, President; **Mr. Suresh Patil**, Vice President; **Mr. Sudarshan Balasaheb Shinde**, Secretary and everyone from the Management.

Our heartfelt thanks to Chairpersons of the entire process **Prof. (Dr.) M. K. Patil**, Principal for the valuable inputs.

We are also thankful to **College's Task force the Assistant Professors** who have collected data required - **Dr. B. T. Jadhav** and **Prof. Avinash Kamble**.

We highly appreciate the assistance of the **entire Teaching, Non-teaching and Admin staff** for their support while collecting the data.

Sustainable Academe

Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208

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DETAILED REPORT

Evidence documents for Site visit of external audit team

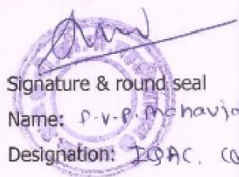
Audit team headed by external expert - Ar. Nahida Abdulla
Accredited & Certified Green Building Professional, ISO IA (IMS)
Audit objective: Green Building up gradation of the premises

Audits covered: Green audit Energy audit Environment audit

Institute: Padmabhushan Vasantgadada Patil Date: 22/05/2023
mahavidyalaya, Kavathe Mahankal,

Document objective: Inferences of the Site visit

| Observations (Positive aspects) | Suggestions (Improvement aspects) |
|--|--|
| Green Audit | |
| - Rainwater harvesting is under practice, and is connected for use in chemistry lab. | - Waste management should be improved for [Plastic, E-waste, Organic & Liquid waste] |
| Energy Audit | |
| - Turbo ventilators are used for thermal comfort | - Undertake hybrid mode for alternate sources of energy - Replace with energy efficient lighting. |
| Environment Audit | |
| - Improve green cover of premises | - Lot of beautification should be undertaken for New Buildings. |


Signature & round seal
Name: P.V.P. Mahavidyalaya
Designation: ISAC, Co-ordinator
For the said Institute


Signature & round seal
Name: Mr. F. Shaikh
Designation: Project Coordinator
For The Greenvio Solutions



Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla
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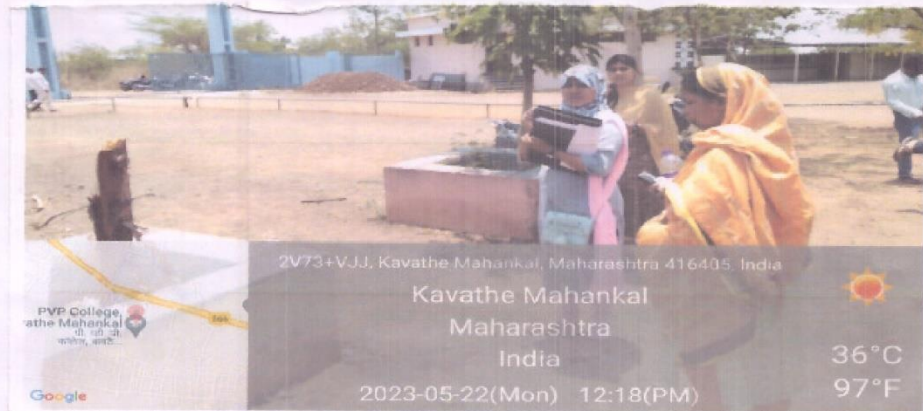
Audits covered: Green audit Energy audit Environment audit

Institute: Padmabhushan Vasantirao Patil Mahavidyalaya, Kavayemahankal, Date: 22/05/2023


Document objective: Proof of the Site visit



Meeting with the core team



Investigation of the systems


Signature & round seal
Name: P.V. Mahavidyalaya
Designation: Ar. Co-ordinator
For the said Institute


Signature & round seal
Name: F.A. Shaikh
Designation: Project Coordinator
For The Greenvio Solutions

1. Introduction

1.1 About the Institution

This college was established in a drought prone area where most of the students come from rural area with economical background. The College firmly believes that education is incomplete without discipline. The institution is confident in making a wholesome person out of the student only by instilling in him discipline which would go to foster a high degree of righteousness in and around him. Accordingly, a disciplinary committee monitors the discipline of the institution.

1.2 Assessment of the Institute

1.2.1 Affiliations

The technical course provided by the College is affiliated to **Shivaji University**, established in 1962, a state university located at Kolhapur, Maharashtra, India.

1.2.2 Certification

The College submits its academic records every year to the **All India Survey of Higher Education (AISHE)** Govt. of India through its registered allocated code which is C-11026.

1.2.3 Recognitions

The College has upgraded in the teaching level – Under graduate to Post graduate in the **section 2(f) and 12 (B) of the University Grants Council Act, 1956 in 1994** with affiliation nos. being 8-131/93 and F.B-131/93 respectively.

1.3 Statements of the Institution

1.3.1 Vision

The College proposes "Sanstha is committed to meet the education, social, cultural and economic needs of the region and the nation to create a just and human society."

1.3.2 Mission

The College adheres and focuses "To promote and foster a culture of high quality teaching and learning and to serve societal needs by encouraging, generating and promoting excellence in research and extension activities."

1.3.3 Goals

The College has formulated the following aim to achieve its mission:

- ➔ To make relentless efforts for the spread of education among classes and communities, that are socially and educationally underprivileged.
- ➔ To make special provision and for disseminating knowledge and promoting arts and culture in rural areas.
- ➔ To supervise and control the conduct and discipline of the students of the P.V.P. Mahavidyalaya and to make arrangements for promoting their health and general welfare.
- ➔ To create a fine band of capable youngsters with great thirst for knowledge and scientific curiosity.
- ➔ To promote the study and research of the Marathi language and the history of Maharashtra.
- ➔ To provide opportunities to the P.V.P. Mahavidyalaya community to reach his/her highest personnel and professional capability.
- ➔ To develop the personality and character of students by value education.

2. Overview

2.1 Summarised Populace analysis for 2022-2023

2.1.1 Students data

The data (shared by the Institute) shows there were a total of **1,075 male and 653 female students.**

2.1.2 Staff data

| S. No. | Type | Male | Female | Total |
|----------------------------|--------------------|-----------|-----------|-----------|
| 1 | Teaching staff | 30 | 06 | 36 |
| 2 | Non-Teaching staff | 31 | 01 | 32 |
| Total Staff Members | | 61 | 07 | 68 |

Table 1: Staff data of the Institution for 2022-2023

The staff data shows the College premises had a total of **68 Staff Members.**

2.2 Summarised Populace analysis for 2021-2022

2.2.1 Students data

The data (shared by the Institute) shows there were a total of **1,172 male and 648 female students.**

2.2.2 Staff data

| S. No. | Type | Male | Female | Total |
|----------------------------|--------------------|-----------|-----------|-----------|
| 1 | Teaching staff | 40 | 06 | 46 |
| 2 | Non-Teaching staff | 32 | 01 | 33 |
| Total Staff Members | | 72 | 07 | 79 |

Table 2: Staff data of the Institution for 2021-2022

The staff data shows the College premises had a total of **79 Staff Members.**

2.3 Total College Area & College Building Spread Area

The **total site area is 10.32 acres** and the **total Built-up area of the Institute is 34,645 sq. ft.** for an approximately 1,796 footfalls.

2.4 Institute Infrastructure

2.4.1 Establishment

The Institute was established in **1978**.

2.4.2 Spatial Organisation

There are provisions for staircase for accessibility on the premises, whereas there are amenities such as CCTV, a first aid room, etc. The Institute is located pretty close to nature and hence has a very fresh environment which is absolutely pollution free and healthy. The Building is a Reinforced Cement Concrete (RCC) framework building.

DETAILED REPORT

3. Research

3.1 About the Green Building Study Audit

It is a systematic study of the aspects which make the Institution sustainable and healthy premises for its inhabitants.

3.2 Analysis of the Green Building Study Audit

The procedure included detailed verification as follows:

- Investigation
- Technical discussion with team
- Observations
- Inferences

3.3 Strategy adopted for Green Building Study Audit

The strategies included data collection from the admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collection, and preparation of the Report.

3.4 Activities undertaken for the Green Building Study Audit

- Discussion with the Institute
- Allotment and Initiation by the Institute
- Data collection
- Submission of the files

Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla
Accredited & Certified Green Building Professional, ISO IA (IMS)
Audit objective: Green Building up gradation of the premises

Audits covered: Green audit Energy audit Environment audit

Institute: Padmabhushan Vasantbhadra Bli Mahavidyalaya, Karamnakhur Date: 21/01/2013

Document objective: Induction Meeting attendance sheet

| S. No. | Name | Committee | Designation | Signature |
|--------|--------------------|-----------|---------------------|-----------|
| 1. | Mrs. F. A. Shaikh | External | Project Coordinator | |
| 2. | Ar. Nahida Abdulla | External | Project Head | |
| 3. | Mr. A. A. Kambale | Internal | J&A.C. co-ordinator | |
| 4. | Dr. B. T. Jadhav | Internal | chairman, cri. VII | |
| 5. | Mr. S. B. Patil | Internal | member, cri. VII | |
| 6. | Mr. S. M. Sable | Internal | member, cri. VII | |
| 7. | Mrs. P. R. Mali | Internal | member, cri. VII | |

Signature & round seal
Name: P. V. P. Mahavidyalaya
Designation: J&A.C. coordinator
For the said Institute

Signature & round seal
Name: Mrs. F. A. Shaikh
Designation: Project Coordinator
For The Greenvio Solutions

Evidence documents for Site visit of external audit team

Audit team headed by external expert - Ar. Nahida Abdulla
Accredited & Certified Green Building Professional, ISO IA (IMS)
Audit objective: Green Building up gradation of the premises

Audits covered: Green audit Energy audit Environment audit

Institute: Radmabhubhayan Vasantroodada Patil Date: 22/05/2017
Memoridajalga, Karamnakhata

Document objective: Exit Meeting attendance sheet

| S. No. | Name | Committee | Designation | Signature |
|--------|--------------------|-----------|---------------------|-----------|
| 1. | Mrs. F. A. Shaikh | External | Project Coordinator | |
| 2. | Ar. Nahida Abdulla | External | Project Head | |
| 3. | Mr. A. A. Kamble | Internal | IGAC, coordinator | |
| 4. | Dr. B. T. Jadhav | Internal | Chairman, crj-VII | |
| 5. | Mr. S. B. Patil | Internal | Member, crj-VII | |
| 6. | Mr. S. M. Sable | Internal | - 11 - | |
| 7. | Mr. P. R. Mali | Internal | - 11 - | |

Signature & round seal
Name: P. V. Mahavijalga
Designation: IGAC, coordinator
For the said Institute

Signature & round seal
Name: Mrs. F. A. Shaikh
Designation: Project Coordinator
For The Greenvio Solutions

4. Observations

Environment is an essential part for human survival. We co-exist with the environment and it cannot be termed as a separate entity. The Ecological audit helps to understand the flora, fauna that exists and steps that can be taken to improve the same.

To denote if there are problems related to sound in and around the surrounding. In terms of the carbon footprint it helps in keeping a tab on the eco-friendly habits incorporated by the inhabitants of the premises. Health today is the topmost priority, a general understanding of the initiatives undertaken along with sufficient hygiene practices adopted. Universal design is applicable to all built and unbuilt spaces.

4.1 Open Spaces

There is an open space in the premises used by students at present for sports and cultural gatherings. **There are provisions for natural plantations which have enhanced the beauty of the space.**

4.2 Flora and fauna audit

4.2.1 Flora audit

A flora survey was carried out to identify the total numbers of plants and trees. The landscape area has a variety of plantations constituting hundreds of surveyed trees in premises in the last few years as follows with detail description of each.

| S. No. | Plant name | Type | Nos. |
|--------|--|-------|------|
| 1 | <i>Azadirachta indica A.juss</i> | Tree | 15 |
| 2 | <i>Leucarna leucocephala (Lam) de. wit</i> | Tree | 12 |
| 3 | <i>Mimusops elengi L.</i> | Tree | 25 |
| 4 | <i>Solanum lycopersicum L.</i> | Shrub | 5 |
| 5 | <i>Ficus carica L.</i> | Tree | 2 |
| 6 | <i>Caesalpinia pulcherrima(L) SW.</i> | Tree | 5 |
| 7 | <i>Casuarina equisetifolia L.</i> | Tree | 4 |
| 8 | <i>Vitex nigundo L.</i> | Shrub | 8 |

| | | | |
|----|--|---------|----|
| 9 | <i>Bougainvillea spectabilis willd.</i> | Shrub | 5 |
| 10 | <i>Aloe barbadensis miller.</i> | Herb | 7 |
| 11 | <i>Magnolia champaca (L) Baill.</i> | Tree | 2 |
| 12 | <i>Ficus religiosa L.</i> | Tree | 3 |
| 13 | <i>Tamarindus indica L.</i> | Tree | 2 |
| 14 | <i>Hamelia patens jacq.</i> | Tree | 4 |
| 15 | <i>Caesalpinia bonduc L.</i> | Tree | 1 |
| 16 | <i>Citrus indica yu. Tanaka</i> | Tree | 1 |
| 17 | <i>Asparagus racemosus willd.</i> | Herb | 2 |
| 18 | <i>Murraya koenigii L.</i> | Tree | 5 |
| 19 | <i>Marselia quadrifolia L.</i> | Herb | 30 |
| 20 | <i>Diospyros melanoxylon</i> | Herb | 2 |
| 21 | <i>Kigelia africana (Lam)</i> | Tree | 1 |
| 22 | <i>Peltophorum pterocarpum</i> | Tree | 30 |
| 23 | <i>Butea monosperma (Lam) k.taub</i> | Tree | 2 |
| 24 | <i>Prunus avium L.</i> | Tree | 20 |
| 25 | <i>Solanum album L.</i> | Shrub | 4 |
| 26 | <i>Tinospora Cordifolia (Thunb) Miers.</i> | Climber | 1 |
| 27 | <i>Duranta erecta L.</i> | Shrb | 25 |
| 28 | <i>Aegle marmelos L.</i> | Tree | 3 |
| 29 | <i>Lowsonia inermis L.</i> | Shrub | 1 |
| 30 | <i>Punica granatum L.</i> | Tree | 1 |
| 31 | <i>Ipomoea mauritiana jacq.</i> | Shrrub | 5 |
| 32 | <i>Kalanchoe pinnata (Lam) pers.</i> | Herb | 7 |
| 33 | <i>Zamia pumila L.</i> | Shrub | 2 |
| 34 | <i>Manilkarazapota L.</i> | Tree | 2 |
| 35 | <i>Justicia adathoda L.</i> | Shrub | 2 |
| 36 | <i>Ficus elastica Roxb.</i> | Tree | 1 |
| 37 | <i>Eichhornia crassipes mart.</i> | Herb | 23 |
| 38 | <i>Hiniscus rosa-sinesis L.</i> | Shrub | 5 |
| 39 | <i>Tecoma stans (L) Juss.</i> | Shrub | 6 |
| 40 | <i>Melaleuca citrinu (curtis).</i> | Shrub | 2 |

| | | | |
|----|--|-------|----|
| 41 | <i>Russelia equisetiformis schlecht.cham</i> | Shrub | 2 |
| 42 | <i>Thuja occidentalis L.</i> | Tree | 4 |
| 43 | <i>cycas circinalis L.</i> | Shrub | 6 |
| 44 | <i>Ixora coccinea L.</i> | Shrub | 5 |
| 45 | <i>Jasminum sambac (L) Aiton.</i> | Shrub | 3 |
| 46 | <i>Phyllanthus emblica L.</i> | Shrub | 1 |
| 47 | <i>Carissa corandas L.</i> | Shrub | 1 |
| 48 | <i>Lagerstroemia speciosa (L) Pels.</i> | Tree | 1 |
| 49 | <i>Acacia penninervis DC.</i> | Tree | 4 |
| 50 | <i>Lantana camara Linn.</i> | Shrub | 19 |
| 51 | <i>Moringa oleifera Lam.</i> | Tree | 4 |
| 52 | <i>Annona reticulata L.</i> | Tree | 1 |
| 53 | <i>Crossandra infundibuliformis L.</i> | Herb | 6 |
| 54 | <i>Allamanda L.</i> | Tree | 1 |
| 55 | <i>Dyopsis decaryi Jum.</i> | Shrub | 7 |
| 56 | <i>Amorphophallus paeoniifolius L.</i> | Herb | 1 |
| 57 | <i>Ficus racemosa L.</i> | Tree | 2 |
| 58 | <i>Carica papaya L.</i> | Tree | 1 |
| 59 | <i>Datura stramonium L.</i> | Shrub | 4 |
| 60 | <i>Pithecellobium dulce Roxb.</i> | Tree | 2 |
| 61 | <i>Mangifera indica L.</i> | Tree | 1 |
| 62 | <i>Psidium guajava L.</i> | Tree | 1 |
| 63 | <i>Alstonia scholaris L.</i> | Tree | 28 |
| 64 | <i>Millettia pinnata L.</i> | Tree | 4 |
| 65 | <i>Syzigium cumini L.</i> | Tree | 2 |
| 66 | <i>Bixa orellena L.</i> | Tree | 4 |
| 67 | <i>Cereus hexagonus</i> | Tree | 2 |
| 68 | <i>Flaxinus lanuginosa koidz.</i> | Shrub | 2 |
| 69 | <i>Caryota mitis Lour.</i> | Tree | 2 |
| 70 | <i>Wisteria bifurcata A.K. Irvine.</i> | Tree | 1 |
| 71 | <i>Dyopsis lutescens (H.wendl)</i> | Tree | 4 |
| 72 | <i>Tabernaemontana divaricata</i> | Shrub | 2 |

| | | | |
|-----------|---|---------|---|
| 73 | <i>Dracaena trifasciata (Prain) mobb.</i> | Herb | 8 |
| 74 | <i>Antigonon leptopus (Hook&Arn.)</i> | Climber | 2 |
| 75 | <i>Passiflora rocemosa Brot.</i> | Climber | 2 |
| 76 | <i>Pandanus odorifer (forssk.)</i> | Shrub | 1 |
| 77 | <i>Monoon longifolium</i> | Shrub | 2 |
| 78 | <i>Aristolochia ringens</i> | Climber | 1 |
| 79 | <i>Codiaeam vaxegatum L. A. juss</i> | Shrub | 2 |
| 80 | <i>Antigonon leptopus (Hook&Arn)</i> | Shrub | 2 |
| 81 | <i>Epipremnum aureum (Linden&Andre)</i> | Climber | 4 |
| 81 | <i>Codiaeum variegatum L.</i> | Shrub | 5 |
| 82 | <i>Pandanus odorifer (Forssk)</i> | Shrub | 1 |
| 83 | <i>Monoon longifolium</i> | Shrub | 1 |
| 84 | <i>Aristolochia ringes</i> | Climber | 2 |

Table 3: Details of the Flora in the premises

At present there is more than 440 numbers of plantations comprising of plants, trees, shrubs. All of these are planted by the on various occasions and some have grown naturally. Timely maintenance with sufficient care has resulted in positive benefits for the surroundings.

4.1.2 Fauna audit

The details of the fauna available in the premises are documented below:

| Fauna | Names | Nos. |
|-------------------|--|-------------|
| Birds | Sparrow, Kingfisher, Humming Bird,Owl, Crane,Crow,Bulbul,Dove, | 9 |
| Insects | Snail, Housefly, Honey bee, Dragonfly, Mosquito,Ant, Scorpion, Cockroach,Moth, Spider, Termite, Cricket,Glow warm, Beetle, Butterfly, Centipede,Wasp | 19 |
| Reptiles | Gecko, Lizard,, Cobra,Ratsnake, Banded Kukri Snake, Earthworm, | 7 |
| Amphibians | Frogs, | 1 |
| Mammals | Cats, Monkey, Mouse, Squirrels | 5 |

Table 4: Details of the fauna in the premises

The premise has a beautiful and rich fauna; it enhances the co-existence and provides a fresh environment for the premises.

4.3 Noise Audit

On a macro level the College is surrounded by huge farms and minimal residential blocks **thus there is a peaceful and noise free arena observed inside the premises.**

4.4 Carbon Footprint Audit

4.4.1 Eco-friendly Commuting Practices

- The site is located in a rural locality.
- Overall, the carbon footprint is well under control.
- Students and staff members commute using public transport.
- There are no major fossil fuels used inside the premises.

4.4.2 Heat Island Reduction

The external temperature is too hot and certain provisions should be undertaken such as shaded walkways and huge nos. of plantations all over the premises.

4.4.3 Outdoor Light Pollution Study

The College compound lights are not upward looking thus, these do not cause light pollution.

4.5 Universally accessible premises

As per World Report on Disability, 2011 there are 180 million approx. Persons with Disabilities that makes it 15% of total population of India.

The following facilities are available on the premises for the specially-abled as part of universally accessible premises initiatives.

- Low height risers in the staircases
- Non-slippery floor surfaces
- Toilets for the specially abled

4.6 Fire Safety

Fire and life safety are an important consideration of the National Building Code 2016. This aspect is touched upon as part of this study in the capacity of an Architect registered with the Council of Architecture. As part of the research, fire safety audit was considered from the 'Building systems' perspective. **All provisions such as extinguishers, sand buckets have been undertaken.**

DETAILED REPORT

5. Suggestions

5.1 Section-wise suggestions related to premises

The following suggestions are to be considered as a **first priority** for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission**. The Institute can execute a plan after discussion with Project Head.

5.1.1 Site beautification

- ➔ **Beautification of the entrance pathway** - The existing bricks (waste from the existing new construction going on) can be used or upgraded the pathway through an appropriate Landscape Architecture design.
- ➔ **Bird house/ Feeders** - At appropriate locations there can be provisions for drinking water and some grains for birds as they visit the site much frequently.
- ➔ **Child area** - There can be one provision where if student's or staff relative who are toddlers or senior citizens can rest and this area could have facilities accordingly.

5.1.2 Heat island reduction

Cool rooftops - It is suggested that the Institute gets the Terrace roofs painted with Cooltop as it will help reduce the temperature of the spaces.

5.1.3 Universally accessible premises

- ➔ **Resting places** - There should be increased provision for resting places on-premises outdoor and indoors.
- ➔ **Provisions for visually impaired - Signages** – In addition to the signages being in regular language there should be additional signages in braille language for the specially-abled students.
- ➔ **Provisions for visually impaired - Tactile flooring** – The indoor and outdoor of the premises should have dedicated tactile flooring for the visually impaired.

5.1.4 Life safety

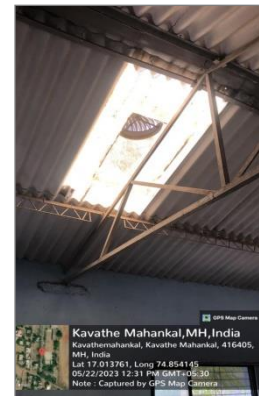
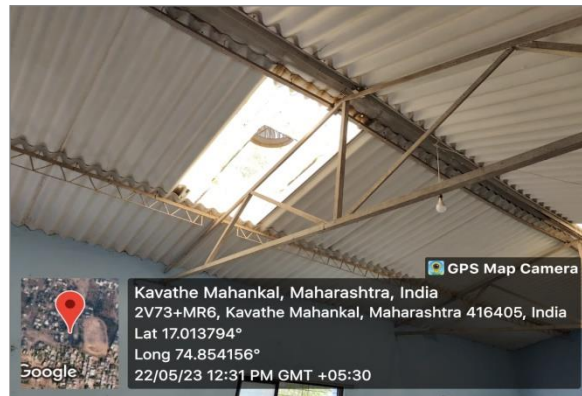
- ➔ **Combustible equipment** - Every space which has a gas cylinder or combustible equipment should have a provision for the barricade around the gas cylinders, appropriate safety board's mentioning 'danger sign' and 'Do not touch' with an additional small fire extinguisher close by.
- ➔ **Sensitization programs** - Regular seminars/ webinars by experts such as Architects, Govt. Fire department on subjects related to fire and life safety should be organized and the outputs should be adopted and documented.

5.1.5 Pollution Control

- ➔ **Specific area designated for E-vehicles** – There should be designated area dedicated to E-vehicles parking and charging and this zone should be demarcated as 'Eco-Zone'
- ➔ **Promote the use of Eco-friendly vehicles** - There can be student and staff sensitization program on eco-friendly and battery-operated vehicles/ low emission vehicles for daily use.
- ➔ **Battery charging points for Eco-friendly vehicles** - There can be provision for battery charge points, this would inspire students to change their mode of transportation and adopt sustainable practices.
- ➔ **Avoid burning waste** - The waste produced on the premises should not be burned as it is dangerous to the health of students and staff



On-site investigation of the Old campus



On-site investigation of the internal spaces



Details about the various types of dustbins and the oxygen park



Rain water harvesting facility in the premises

6. Compilation

The study is based on the data collected, analyzed, rechecked, and confirmed through multiple modes. For the quality study, some standards/ notes have been referred to. These are listed and noted below. However, no direct references have been used anywhere. These are used as a base to analyze and study the data collected.

- ➔ Uniform Plumbing Code – India, 2008
- ➔ IGBC Green Existing Buildings – Operation & Maintenance (O&M) Rating system, Pilot version, Abridged Reference Guide, April 2013
- ➔ IGBC Green Landscape Rating system, March 2013
- ➔ BOMA Canada Waste Auditing Guide, Best Environmental Standards, BOMA BEST – Canada
- ➔ Used only for understanding Universal design - Universal accessibility Guidelines for Pedestrian, Non-motorized vehicle and Public Transport Infrastructure – Report guidelines by Samarthyam (National centre for Accessible Environments) – an initiative supported by Shakti Sustainable Energy Foundation.

