



**AIR QUALITY AUDIT
REPORT FOR
POORNIMA INSTITUTE OF
ENGINEERING AND TECHNOLOGY**



Elion Technologies & Consulting Private Limited

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Acknowledgment

Elion Technologies and Consulting Pvt Ltd places on record it's thanks to Poornima Institute of Engineering and Technology for entrusting the task of conducting air quality study.

We acknowledge with gratitude the whole hearted support and cooperation extended by all team members while carrying out the study.



Site Information

Name of College	Poornima Institute of Engineering and Technology
College Address	ISI - 2, Poornima Marg, Sitapura, Jaipur, Rajasthan, 302022
Execution Partner	ELION Technologies & Consulting Pvt Ltd
Communication Address	307, 3rd Floor DDA Lal Market H-Block Vikas Puri, New Delhi-110018
Date of Audit	6 th July 2023
Year of Audit	2023 – 2024
Audit Participants	Dr. Gautam Singh – Registrar & Chief Proctor Dr. Sama Jain – Professor & HOD First Year Mr. Ashwani Lata – Director (Student Welfare)
Total Area of College	96267.19 sq. ft.
Total Built up Area of College	3314 sq. ft.



Overview of Institute

Poornima Institute of Engineering and Technology, was established in 2007 with the aim of imparting pragmatic technical education. In its magnificent journey of 12 years, PIET has set benchmarks and reached at new pinnacles in Engineering Education with dedication, perseverance and devotion. PIET is spearheading its outstanding voyage with the motto 'Success is not a destination, it's a journey'.

Vision

To create knowledge based society with scientific temper through cutting-edge technologies, innovative research and to become valuable resource for enriching mankind.

Mission

- To provide an environment that will allow students and faculty members to be skilled in creation and implementation of new ideas.
- To provide platform to improve questioning, observing, testing, analyzing and communication skills.
- To provide qualitative education and generate new knowledge with integration of emerging technologies and research.
- To practice and promote high standard of potential ethics, transparency and accountability.

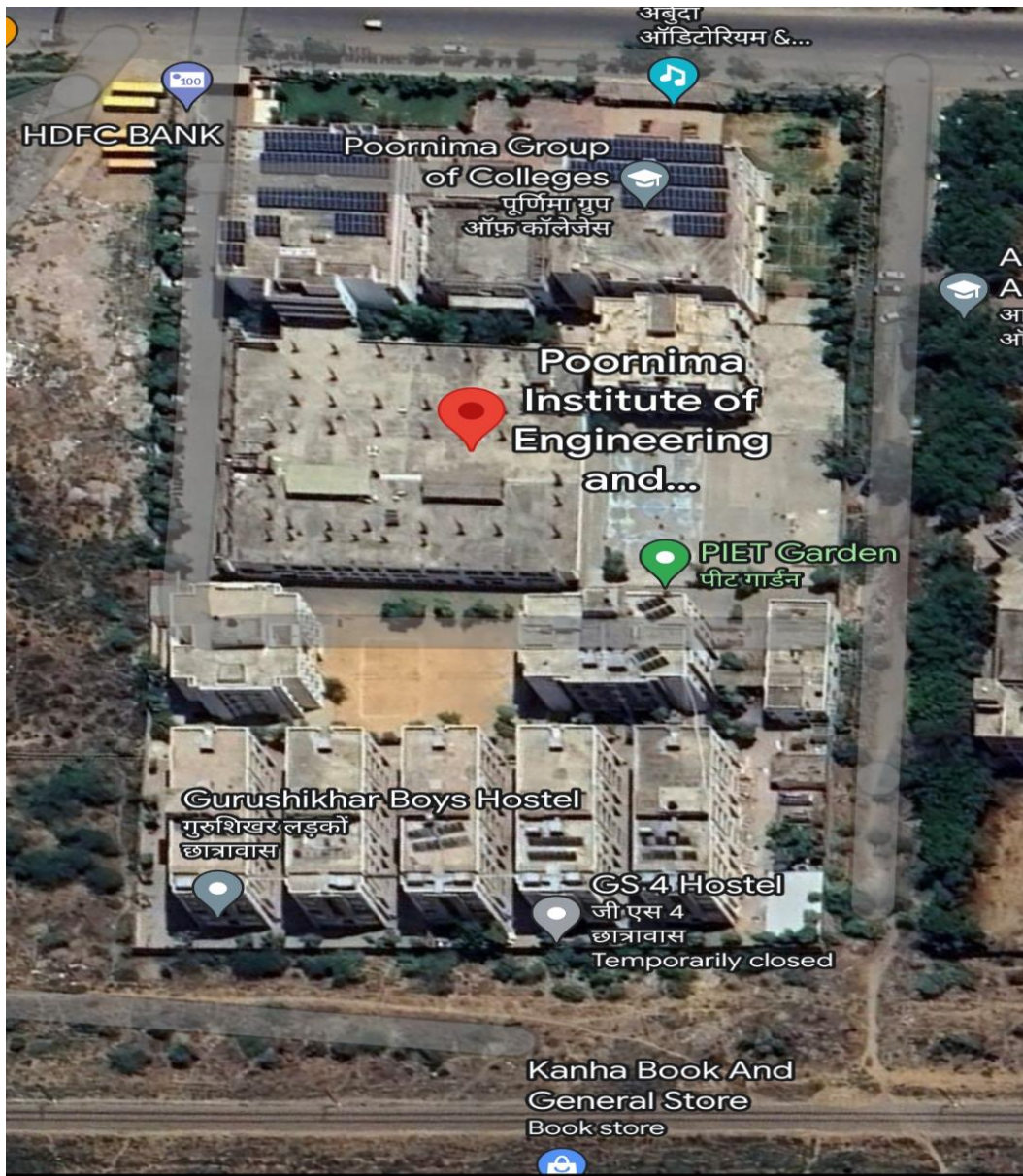
List of courses offered by the college:

- Computer Science Engineering
- Computer Science Engineering(R)
- Computer Science- Data Science (DS)
- Computer Science- Artificial Intelligence (AI)
- Artificial Intelligence & Data Science (AI & DS)
- Computer Science – IOT

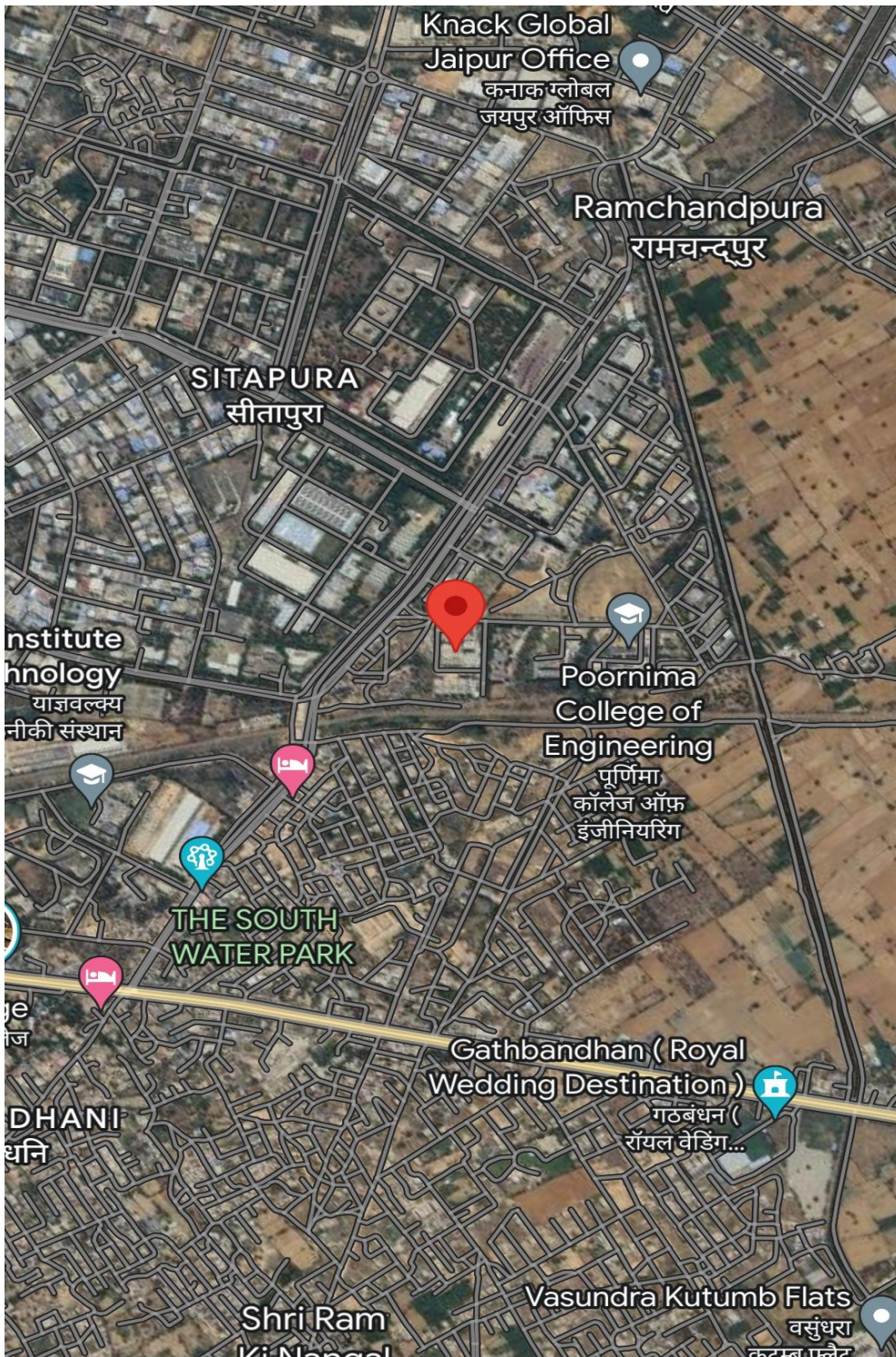


Environment Setting

The land use around the campus is mainly mix of residential and commercial area. There are educational institutes such as Apex Institute of Engineering and Technology and Swasthya Kalyan Institute, Garden and Hospital.



Poornima Institute of Engineering and Technology Campus



Location of Poornima Institute of Engineering and Technology Campus



Introduction

Elion Technologies & Consultancy Pvt Ltd was entrusted upon the task to carry out the Air Quality Audit to study the effects of Work Place at their campus at Poornima Institute of Engineering and Technology ISI-2, RIICO Institutional Area, Goner Road, Sitapura, Jaipur - 302022. So as to ascertain the effects of Environmental factors on metal components and thereby enabling PIET, Jaipur to take the necessary precautions, if any.

The quality of indoor air inside offices, schools, and other workplaces is important not only for workers' comfort but also for their health. Poor indoor air quality (IAQ) has been tied to symptoms like headaches, fatigue, trouble concentrating, and irritation of the eyes, nose, throat and lungs. Also, some specific diseases have been linked to specific air contaminants or indoor environments, like asthma with damp indoor environments. In addition, some exposures, such as asbestos and radon, do not cause immediate symptoms but can lead to cancer after many years.

Many factors affect IAQ. These factors include poor ventilation (lack of outside air), problems controlling temperature, high or low humidity, recent remodeling, and other activities in or near a building that can affect the fresh air coming into the building. Sometimes, specific contaminants like dust from construction or renovation, mold, cleaning supplies, pesticides, or other airborne chemicals (including small amounts of chemicals released as a gas over time) may cause poor IAQ.

Air Quality examination for the various oxidants were examined as per the requirement of the client and documented in the SOW prior to start of the work. The important parameters to be monitored were identified before starting the assignment.



Scope of Work and Methodology

The Air samples at the desired locations were collected through Suction Samplers using standard operating procedures and BIS 5182/APHA methods for the examination of Air Quality in ambient environment. The contaminants were adsorbed in various adsorbents and taken to the laboratory for further examination of the contaminants as identified.

The Air Quality Examination results are presented in our Analysis Report.

The results found are satisfactory and within the limits as per OSH (World health organization standard on Occupational Health and Safety), NIOSH (National Institute for Occupational Safety and Health- U.S. federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness and SNEA (Singapore National Environmental Agency).



Indoor Air Quality

Nature of Sample	-	Ambient Air Campus
Sample Received on	-	7 th July 2023
Sampling Method	-	BIS/APHA

PARAMETER	UNIT	RESULT	PERMISSIBLE LIMIT	STANDARDS
SPM (Suspended Particulate Matter) PM 2.5	ug/m3	54.1	60	CPCB Guidelines
SPM (Suspended Particulate Matter) PM 10	ug/m3	68.0	100	IS:5182
Sulphur Dioxide (As SO ₂)	ug/m3	5.4	80	IS:5182
Nitrogen Dioxide (As NO ₂)	ug/m3	14.1	80	IS:5182
Carbon Monoxide (As CO)	ug/m3	1249	4000	IS:5182
Lead (as Pb)	ug/m3	ND	1.0	IS:5182
Ammonia (As NH ₃)	ug/m3	11.0	400	IS:5182
Nickle (as Ni)	ug/m3	ND	0.02	IS:5182
Ozone	ug/m3	6.0	100	NAAQS
Carbon Dioxide (As CO ₂)	ug/m3	<5.0	350	NAAQS
Methane(As CH ₄)	ug/m3	ND	5	SNEA

BDL = Below Detectable Limit,

ASHRAE = American Society of Heating, Refrigerating and Air Conditioning Engineers,

OSHA = Occupational Safety and Health,

OSHA = Occupational Safety and Health Association,

NIOSH = National Institute of Safety & Health,

NAAQS=National Ambient Air Quality Standards

SNEA = Singapore National Environmental Agency

ACGIH = American Conference of Governmental Industrial Hygienists,

mg/m³ = milligram per cubic meter,

PPM = parts per million,

PPB = parts per billion,

ND = Not Detectable/Not present.

Observation:

The indoor air quality survey has revealed that indoor air parameter is within limit.



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