



ENERGY AUDIT REPORT

SWAMI VIVEKANANDA COLLEGE

VILL & PO: CHANDKHIRA, KARIMGANJ, ASSAM, 788725

ENERGY AUDIT REPORT 2023

SUBMITTED TO:

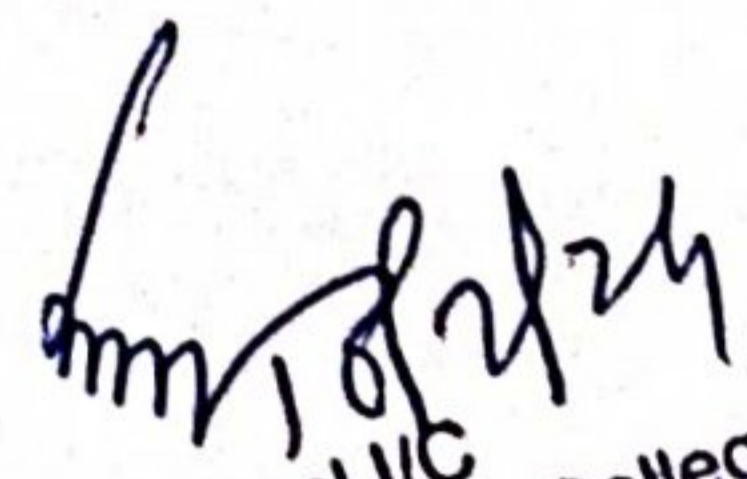
PRINCIPAL

SWAMI VIVEKANANDA COLLEGE

CHANDKHIRA, KARIMGANJ

CONDUCTED BY:

**Dr. Dipankar Paul,
Assistant Professor,
Department of Physics,
Ramkrishna Nagar College
Karimganj, Assam**


Principal IIC
Swami Vivekananda College
P.O. Chandkhira, Dist. Karimganj

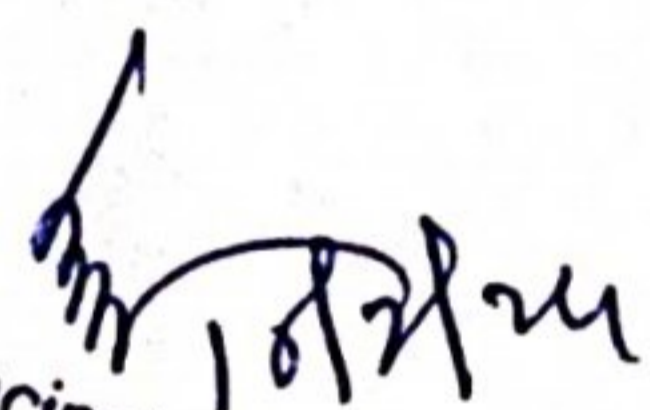


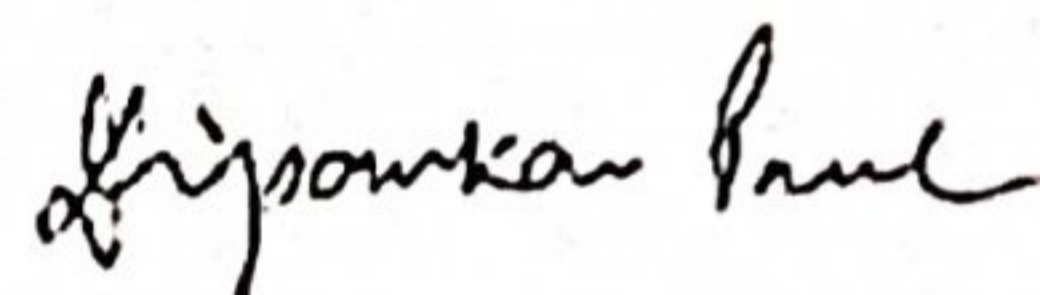
ENERGY AUDIT

SWAMI VIVEKANANDA COLLEGE

CERTIFICATE

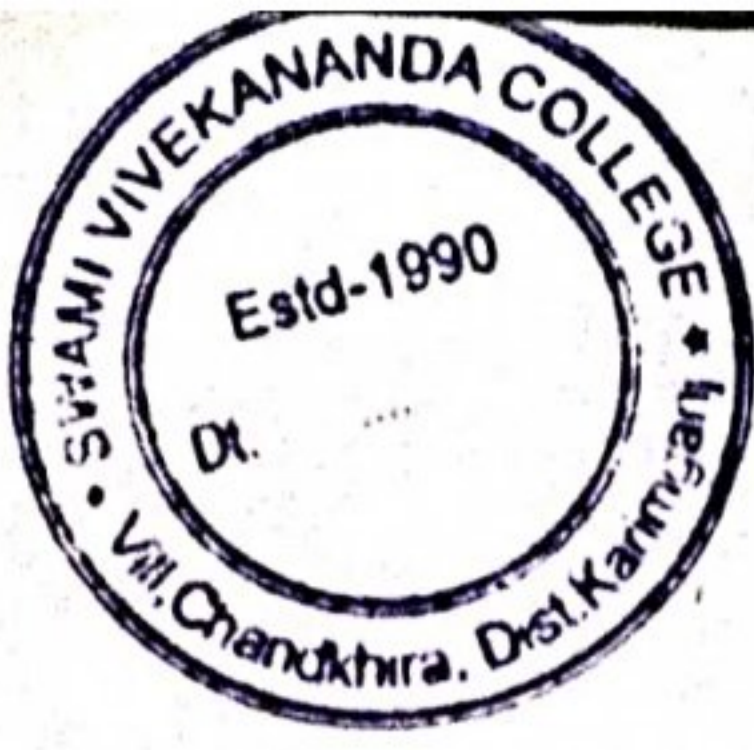
Dr. Dipankar Paul, an Assistant Professor in the Department of Physics at Ramkrishna Nagar College, Karimganj, Assam, conducted a data assimilation of the Energy Audit for Swami Vivekananda College, Chandkhira, during the year 2023. The objective was to analyze energy consumption and evaluate the campus's efficiency in using energy wisely, ensuring the well-being and comfort of everyone. The survey, carried out by Dr. Dipankar Paul, covered all classrooms, staff rooms, washrooms, and other blocks to determine the usage of various electronic devices such as tube lights, fans, LED bulbs, air conditioners, Xerox machines, computers, inverters, and other equipment in each respective area.


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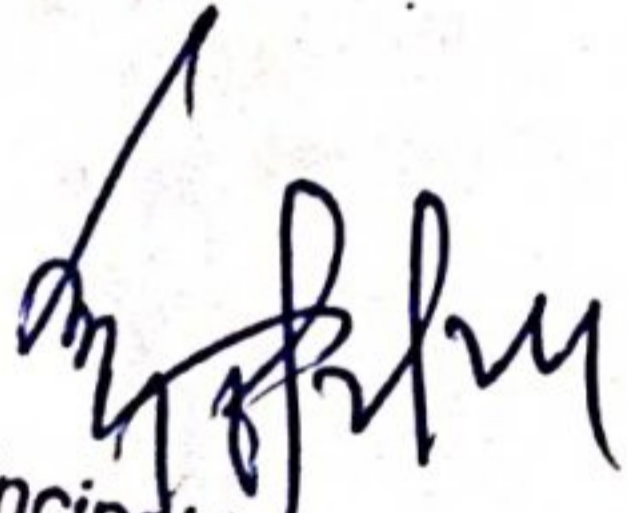
Dr. Dipankar Paul,
Assistant Professor,
Department of Physics.

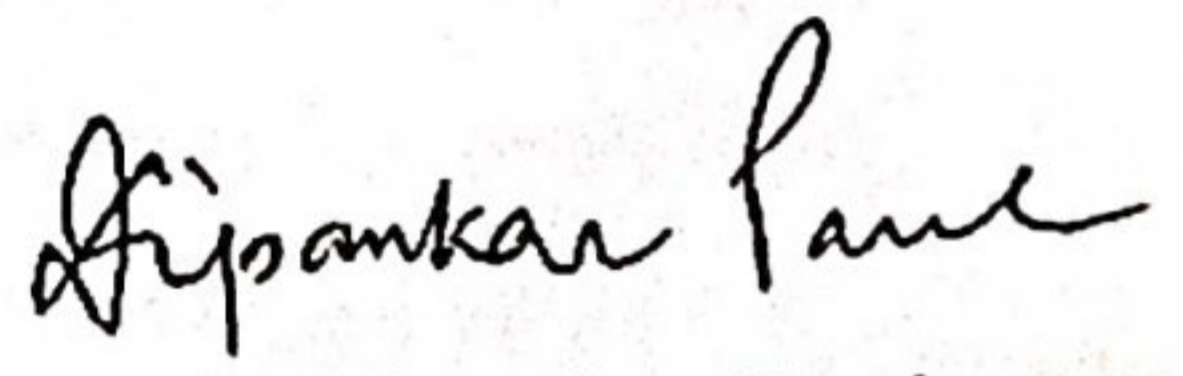
Ramkrishna Nagar College, Karimganj

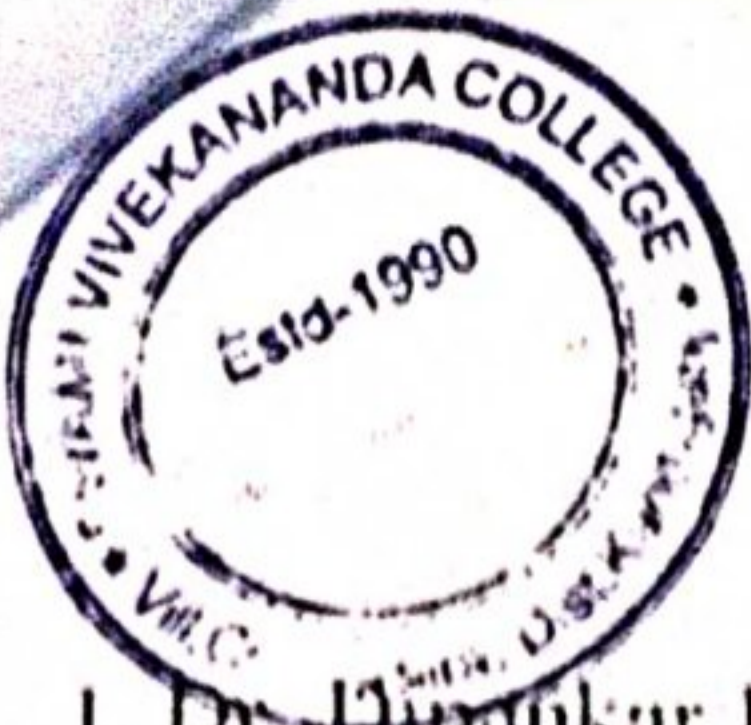


PREFACE

Dr. Dipankar Paul, an Assistant Professor in the Department of Physics at Ramkrishna Nagar College, Karimganj, Assam, conducted a data assimilation of the Energy Audit for Swami Vivekananda College, Chandkhira, during the year 2023. The objective was to analyze energy consumption and evaluate the campus's efficiency in using energy wisely, ensuring the well-being and comfort of everyone. The survey, carried out by Dr. Dipankar Paul, covered all classrooms, staff rooms, washrooms, and other blocks to determine the usage of various electronic devices such as tube lights, fans, LED bulbs, computers, inverters, and other equipment in each respective area.

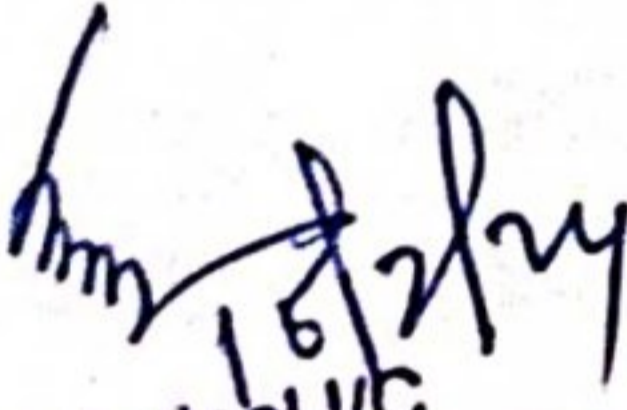

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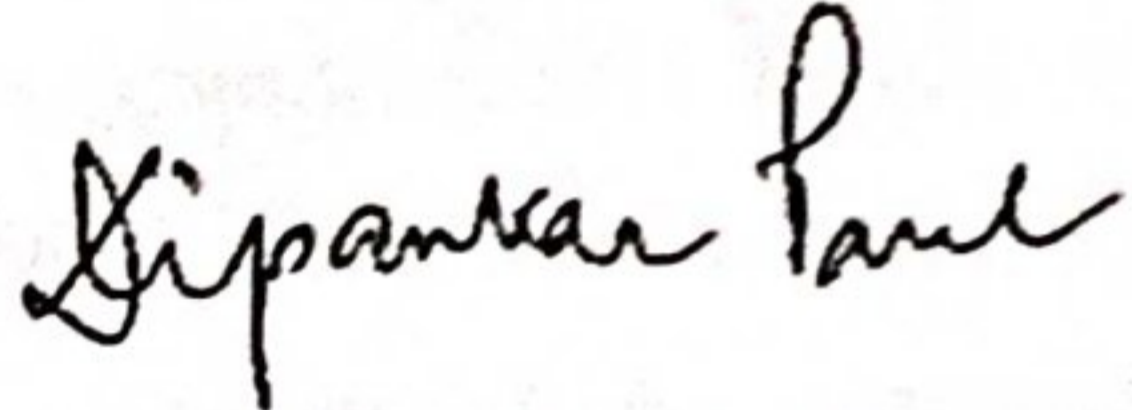

Dr. Dipankar Paul,
Assistant Professor,
Department of Physics,
Ramkrishna Nagar College, Karimganj



ACKNOWLEDGEMENT

I, Dr. Dipankar Paul, an Assistant Professor in the Department of Physics at Ramkrishna Nagar College, Karimganj, Assam am thankful to the Principal Swami Vivekananda College, Chandkhira and also the teaching and non-teaching staffs of the college for their extended help in providing me the information and support for providing me the opportunity and extending their genuine assistance to conduct Energy Audit in Swami Vivekananda Collge, Chandkhira.


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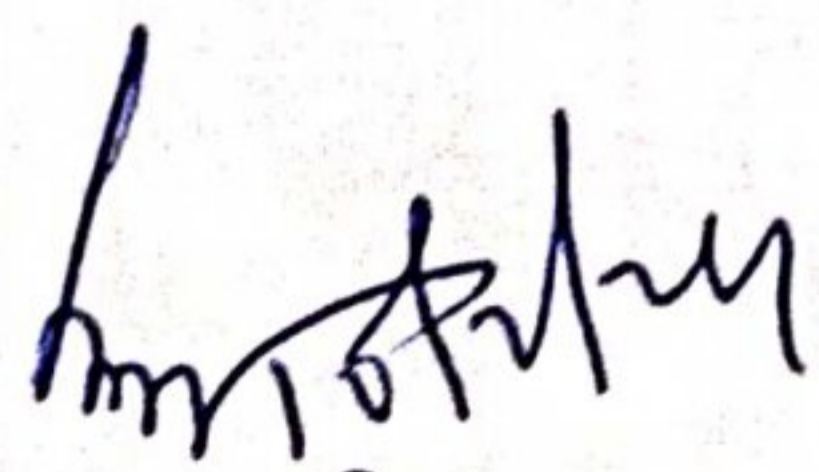
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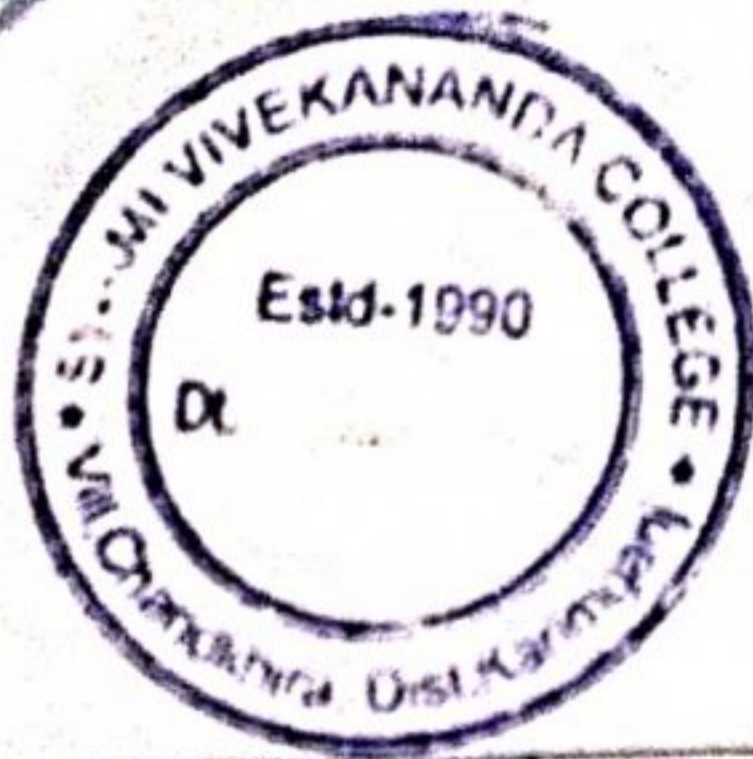


INTRODUCTION

Energy consumption management involves a proactive and systematic approach to monitor, control, and optimize an organization's or institution's energy usage, aiming to conserve resources and reduce costs. The significance of saving energy extends beyond individual entities, as it also contributes to national savings, particularly for countries like India heavily reliant on the import of crude oil and coal. Despite being the third-largest electricity producer globally, India faces the challenge of ensuring sustainable growth, given its ranking as the third-largest consumer of electricity, following China and the United States. Considering the nation's dependence on energy, prioritizing energy management becomes crucial. Some states and regions grapple with energy shortages, paralleled by deficiencies in energy management at various levels. Therefore, while the country focuses on overall energy utilization and conservation, the emphasis on energy management at the organizational or institutional level can make a significant impact. In India, approximately 44% of electricity is utilized in the transportation sector, 29% in industries, and 20% in the domestic and agricultural sectors. Energy conservation involves judiciously consuming energy without compromising on quality or quantity. A key aspect of conservation is the intelligent substitution of conventional methods with energy-saving alternatives. This energy audit report is a reflection of the institution's strategic use of energy-efficient practices and the reduction of energy wastage. It encompasses an inventory of lights, fans, computers, cameras, projectors, and other electronic devices utilized on the campus. Additionally, the report outlines the total budget, investments in energy sources, and the implementation of power-saving measures or alternative energy generation.

The audit statement of Swami Vivekananda College ensures the validation of all necessary data before presenting this assessment report.

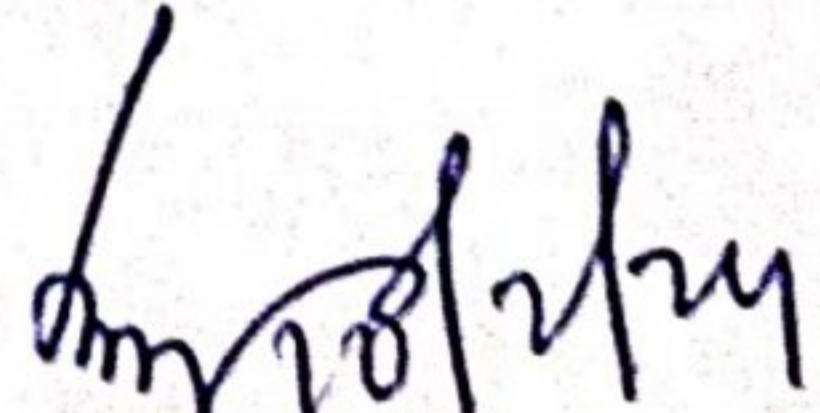

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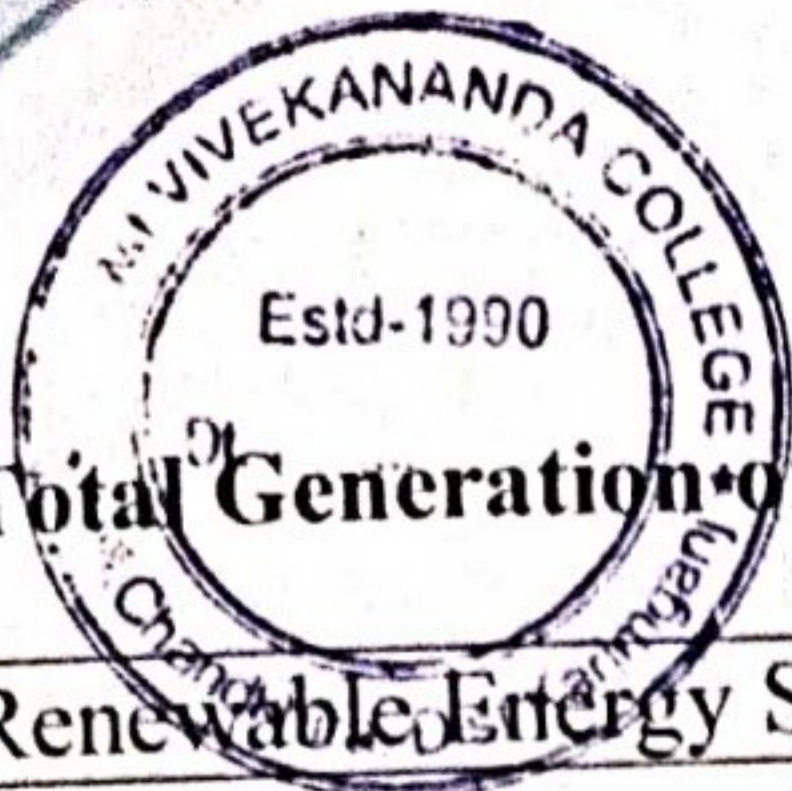


Block	Fan	LED Bulb	LED Tube	Computer	Scanner	Projector	Sound System	Printer	Borewell Motor
A	38X60	02X12	41x60	03X100	04X150	03X300	01X1500	02X150	01X750
Total Watt Used Per Day	2280w	24w	1640w	300w	600w	900w	1500w	300w	750w
Total power consumption in Kilowatt= 8594 kw (eight five hundred ninety-four only) Total Power Consumption in Unit = 286.46									

Electricity Consumption Report

ELECTRONIC ITEMS	CONSUMPTION IN ONE DAY	CONSUMPTION PER MONTH
FAN	2280	68400
LED BULB	24	720
LED TUBE	1640	49200
COMPUTER	300	9000
SCANNER	600	18000
PROJECTOR	900	27000
SOUND SYSTEM	1500	45000
PRINTER	250	7500
BOREWELL MOTOR	750	22500
TOTAL CONSUMPTION IN KILOWATT	8244	824.4 kw
Total power consumption in Unit	252.16	

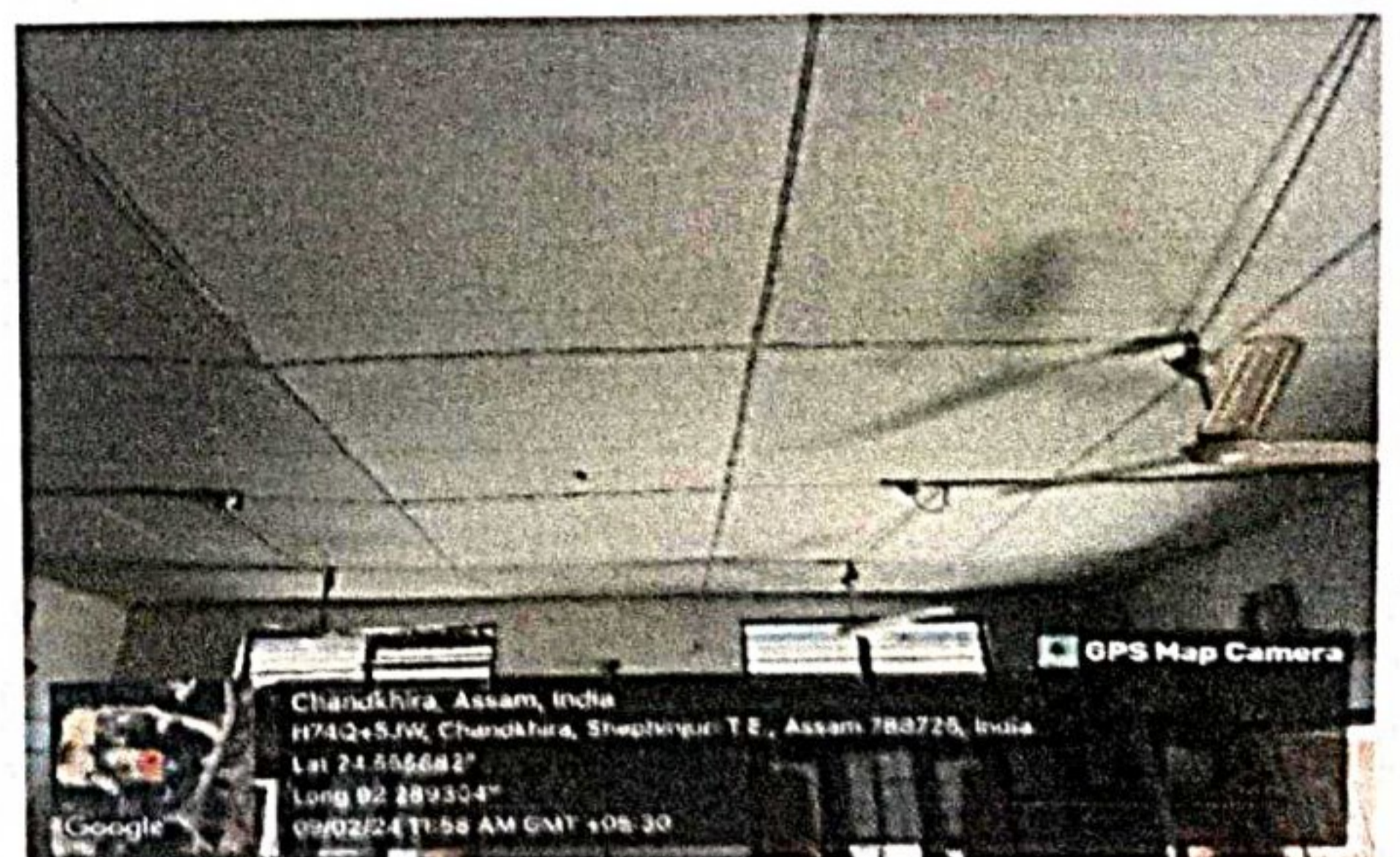
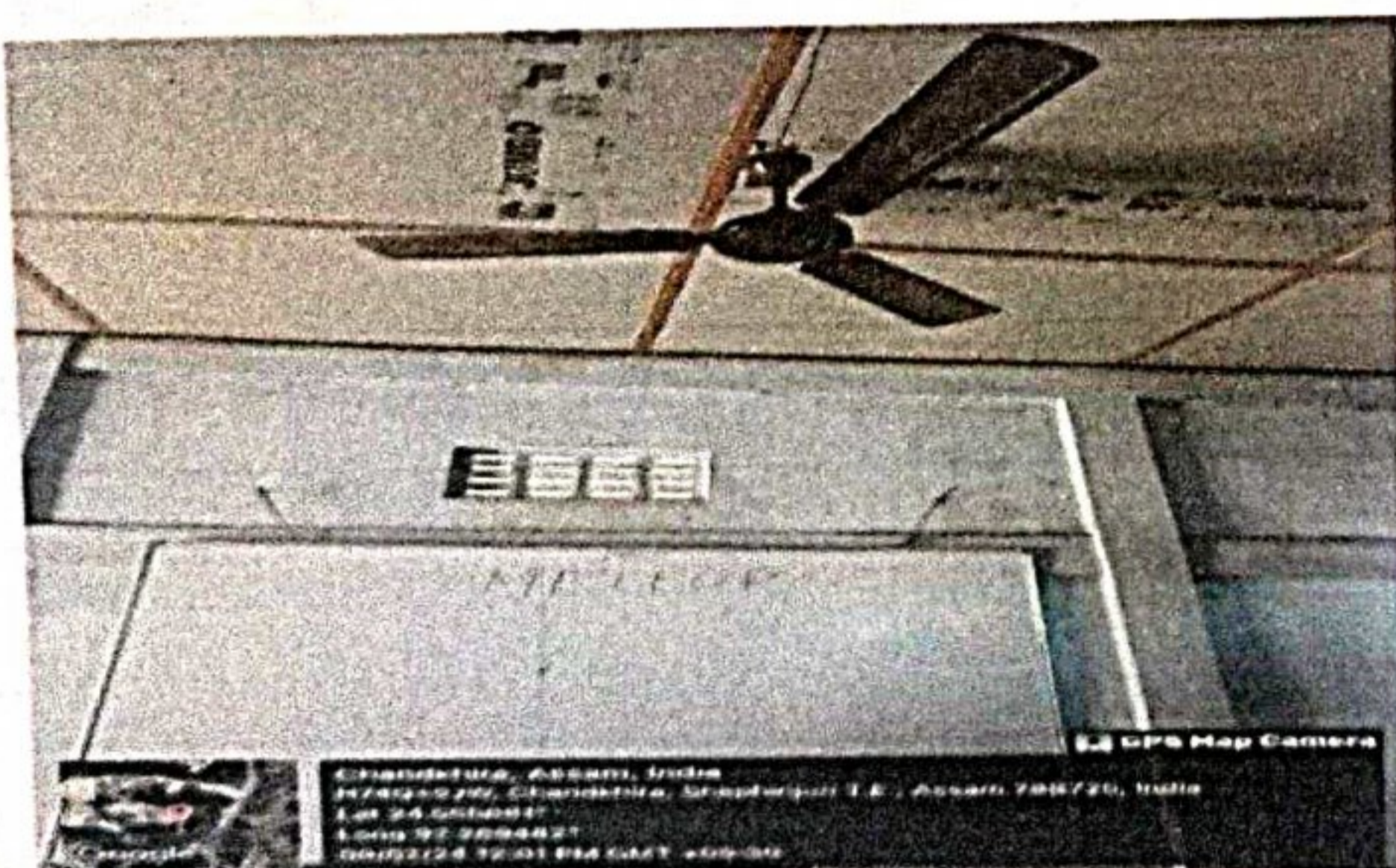
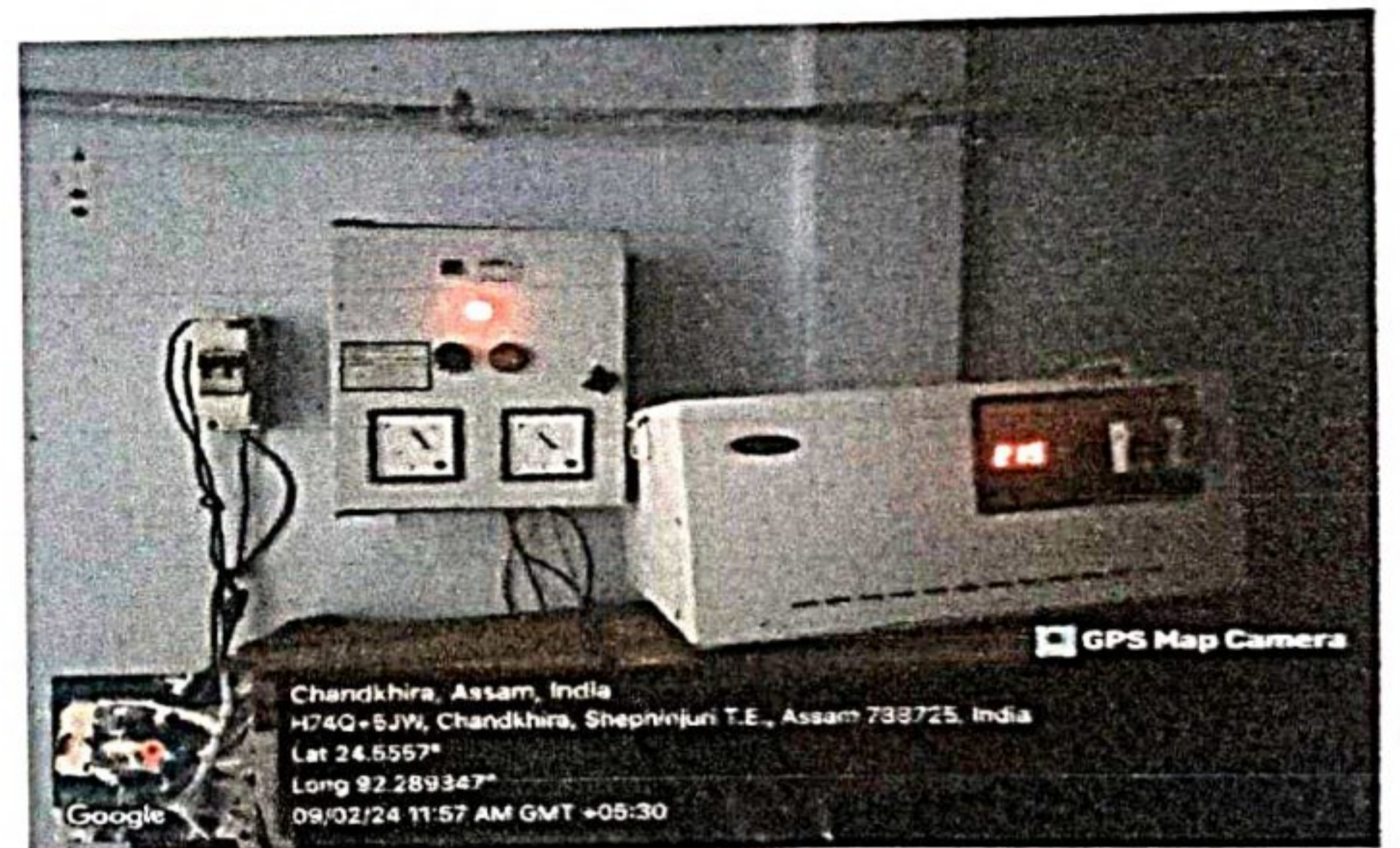
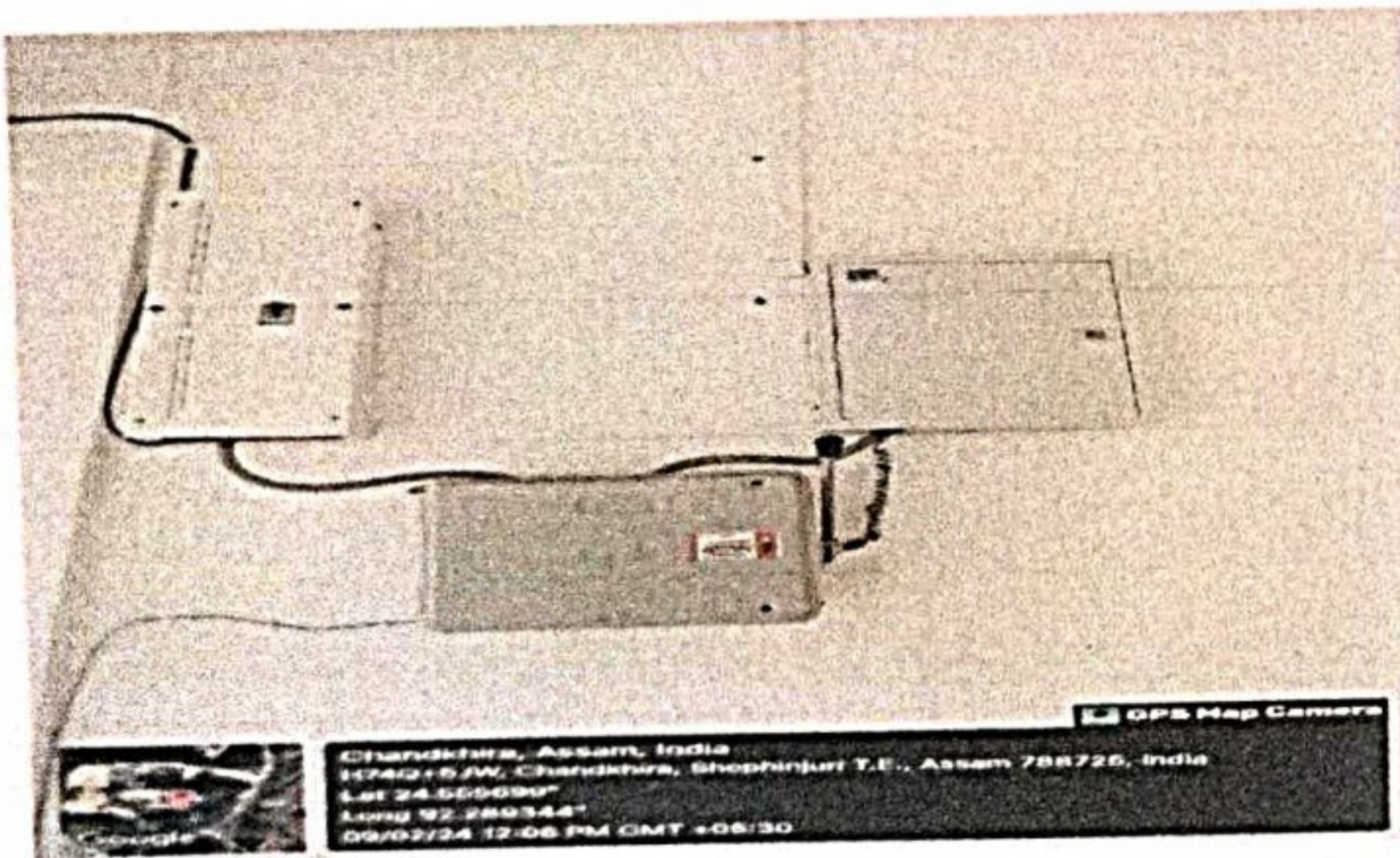

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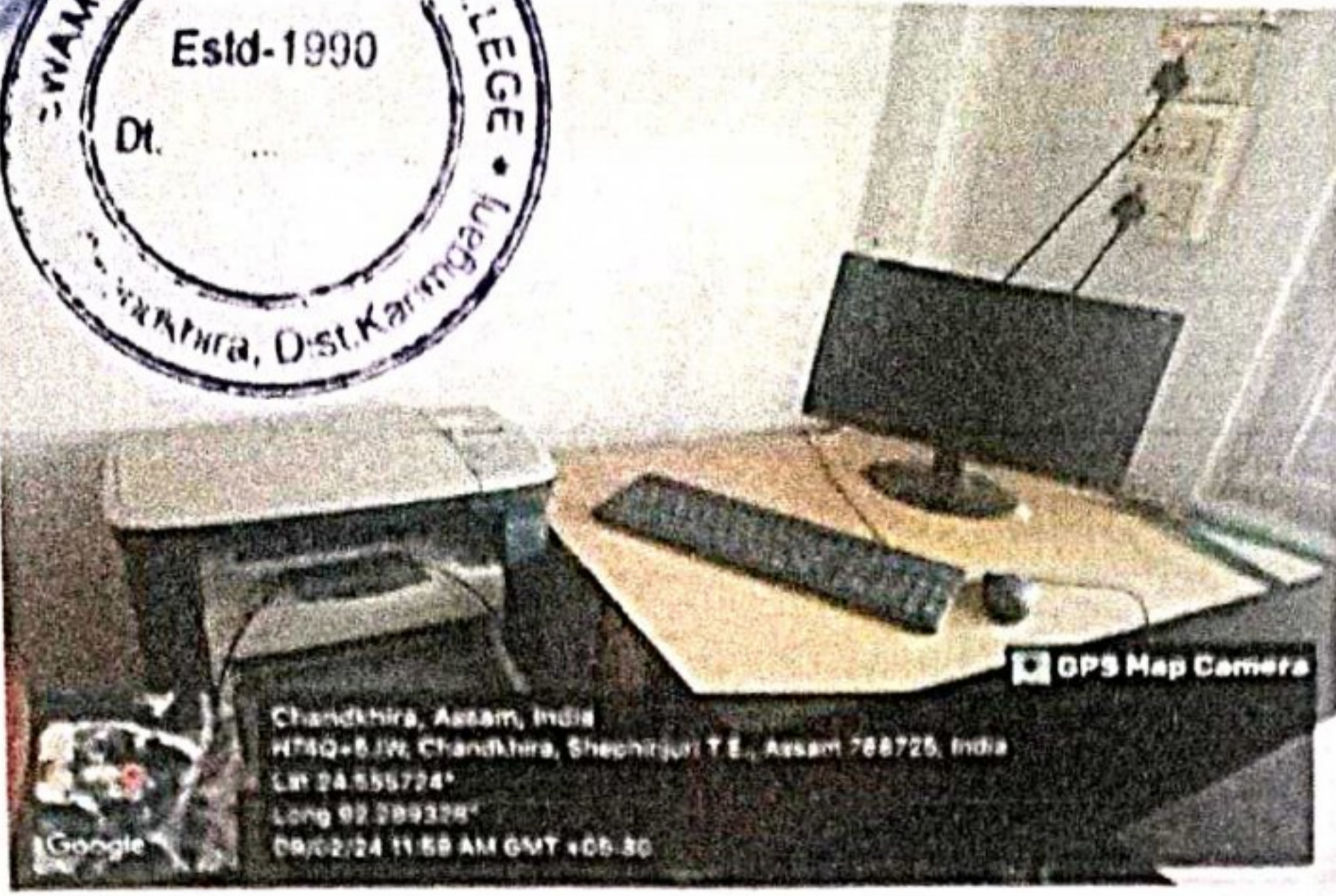
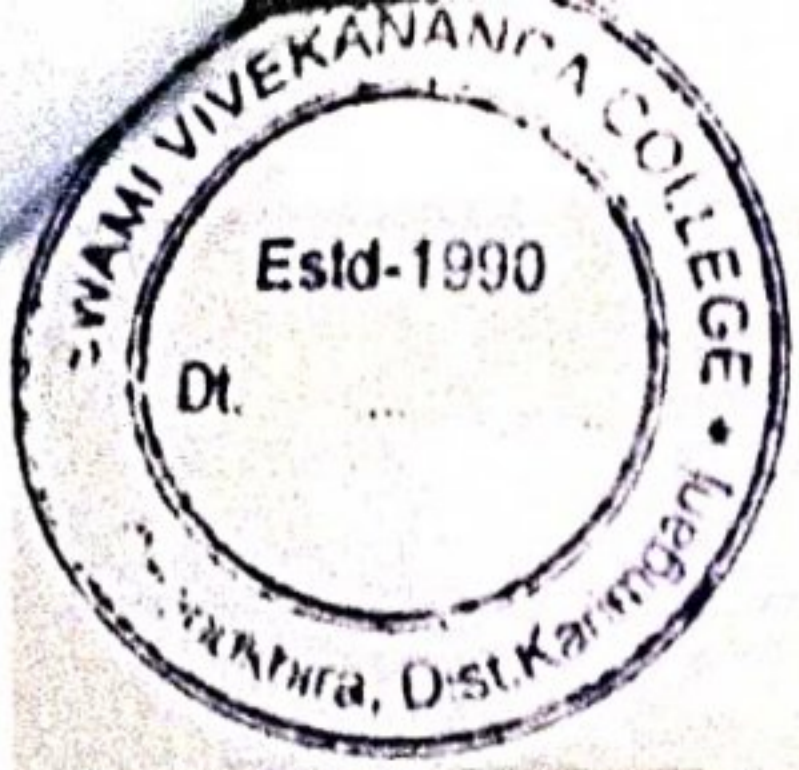
Total Generation of Electricity using Renewable Energy Resources

Renewable Energy Source	Renewable Energy Generated and Used
Solar Light	100+ 100= 200 W
One Day	200 W per day
One Month	600 W

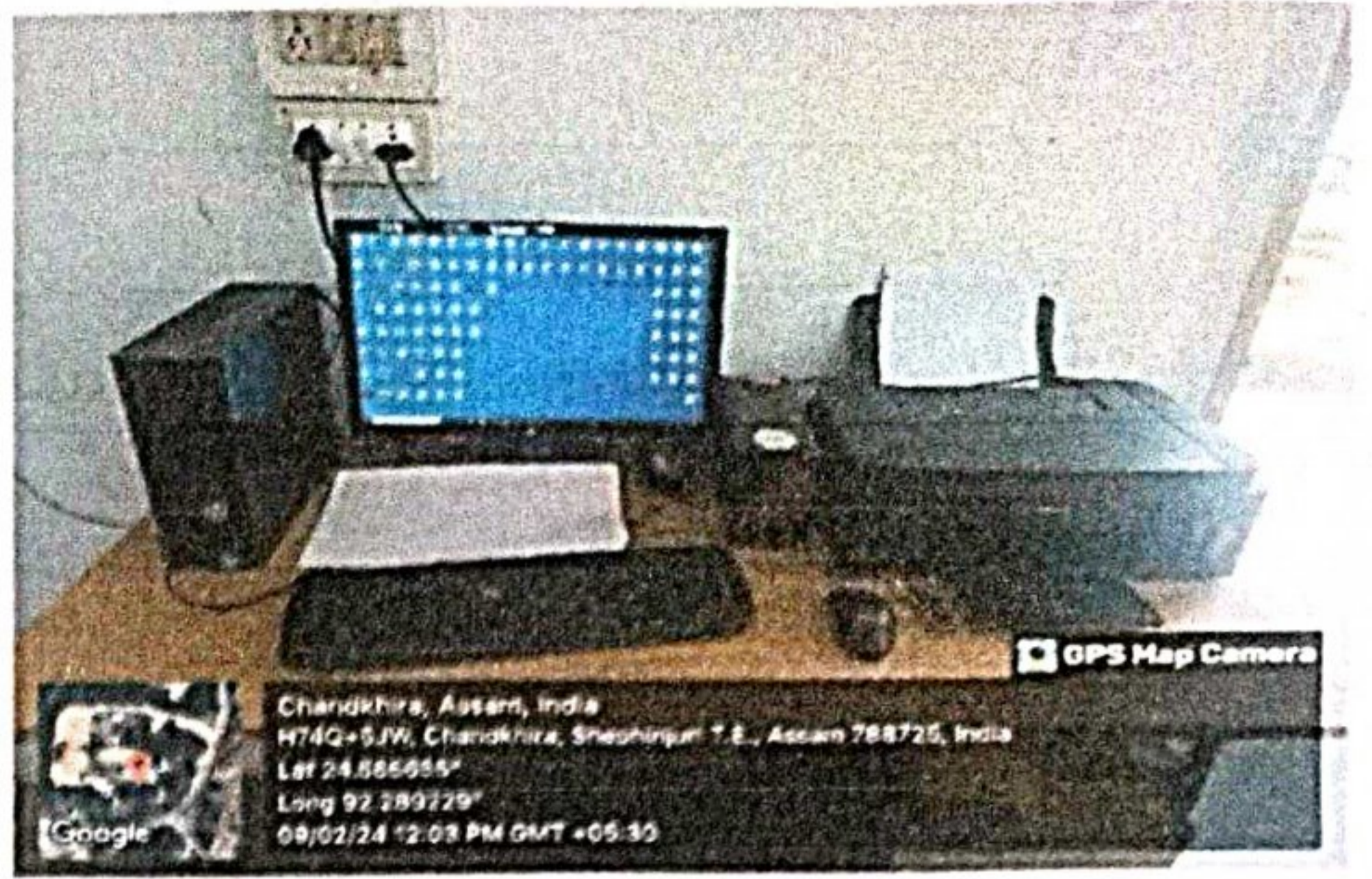
Photographs should be affixed



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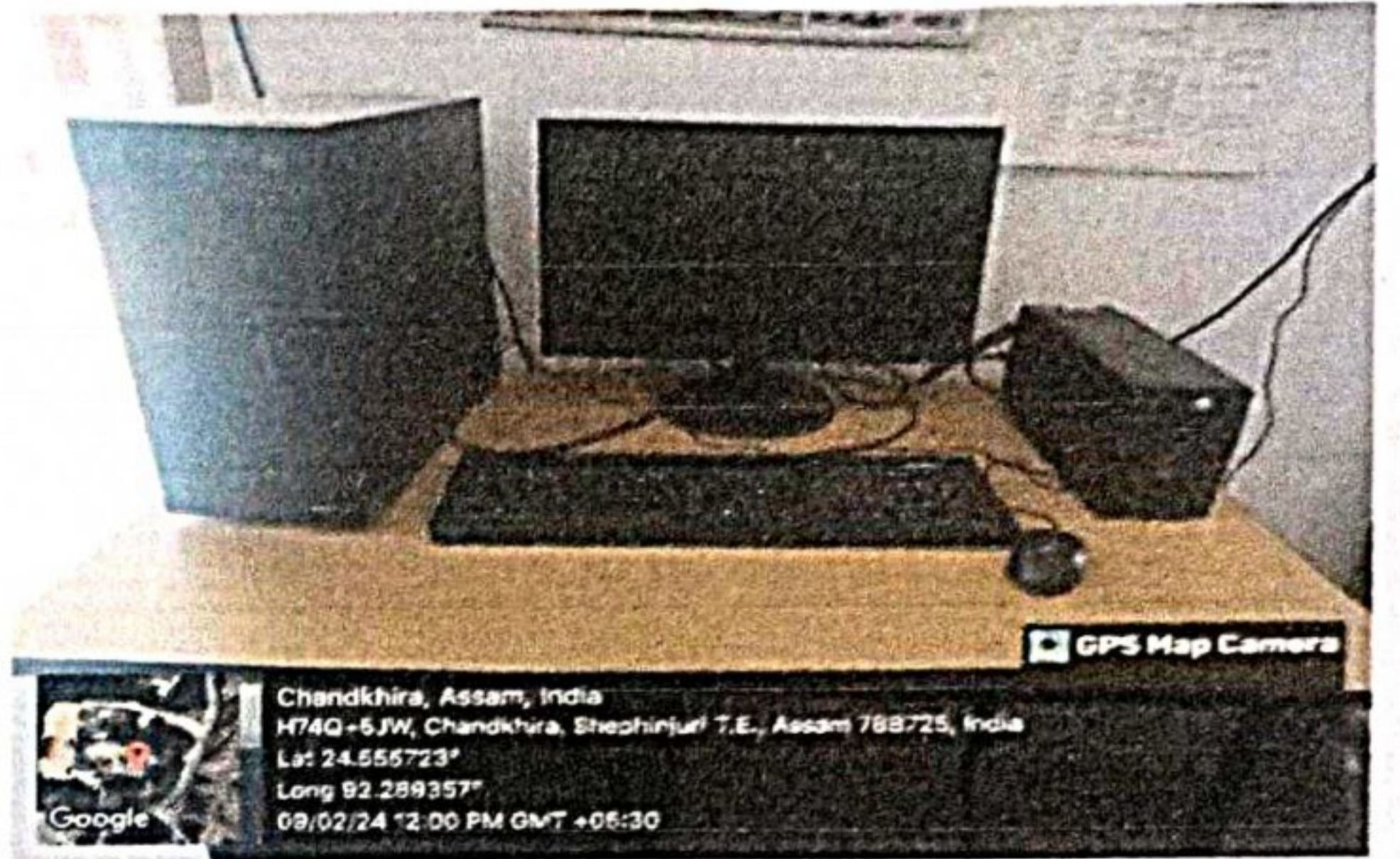
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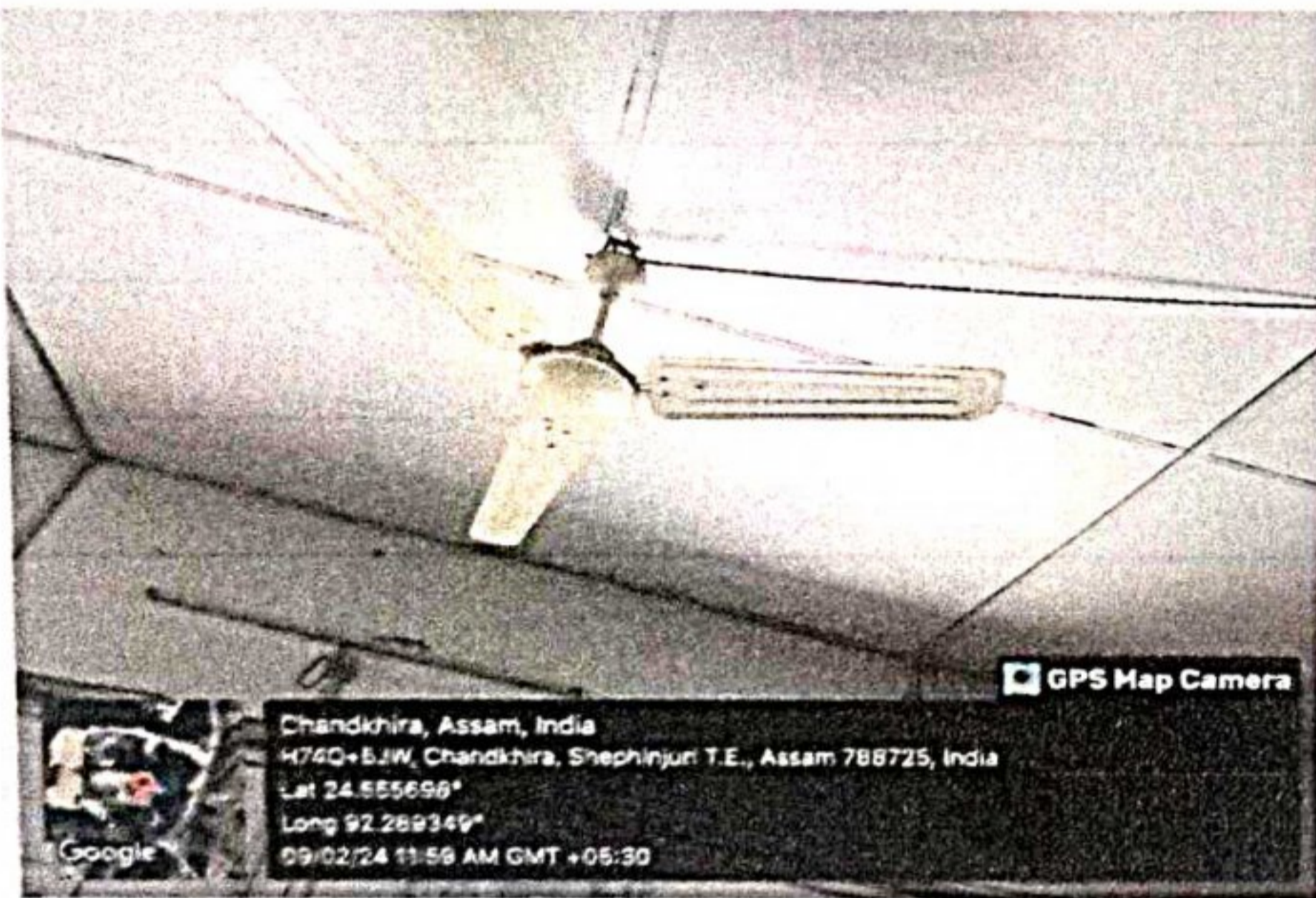
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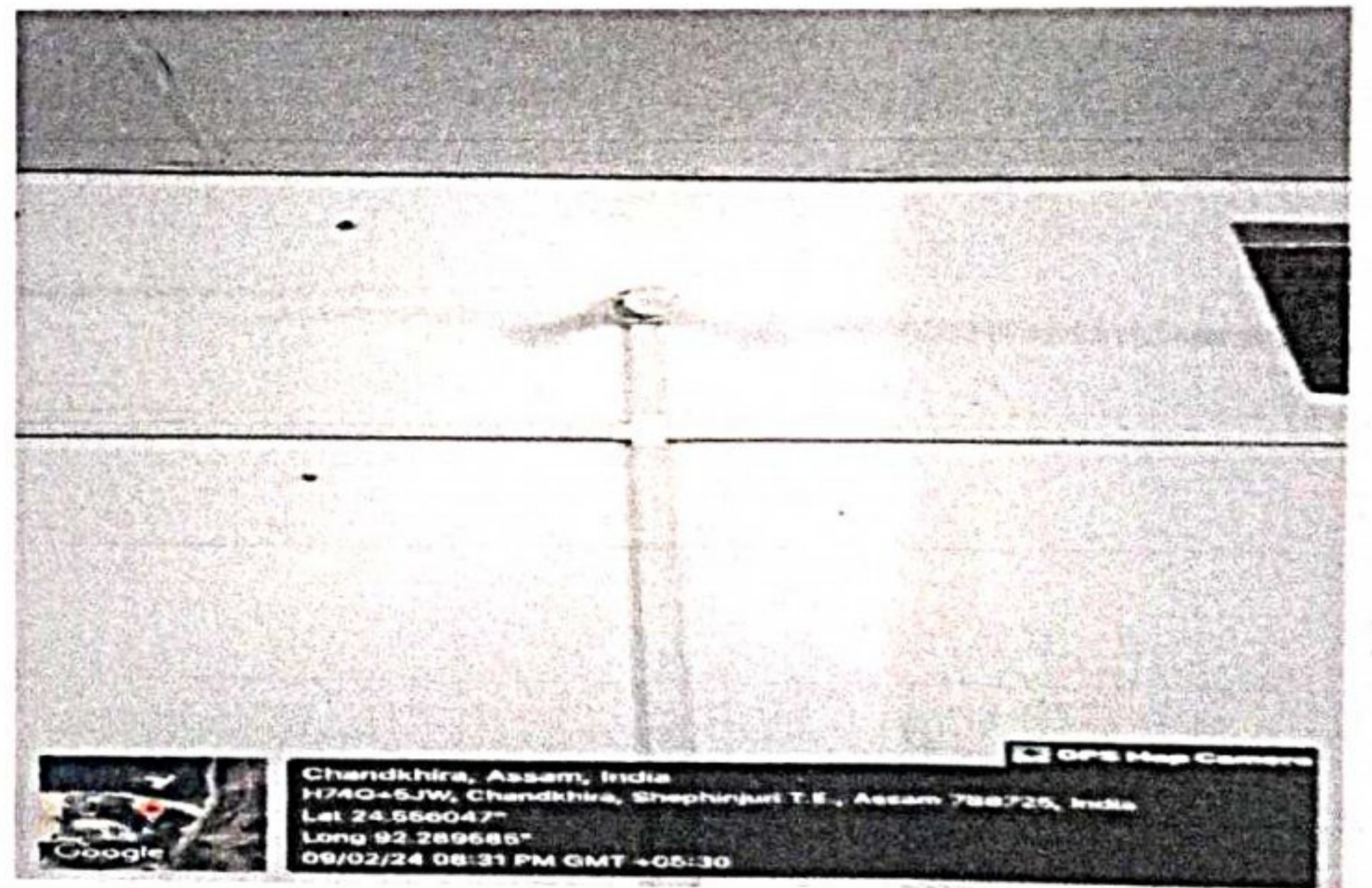
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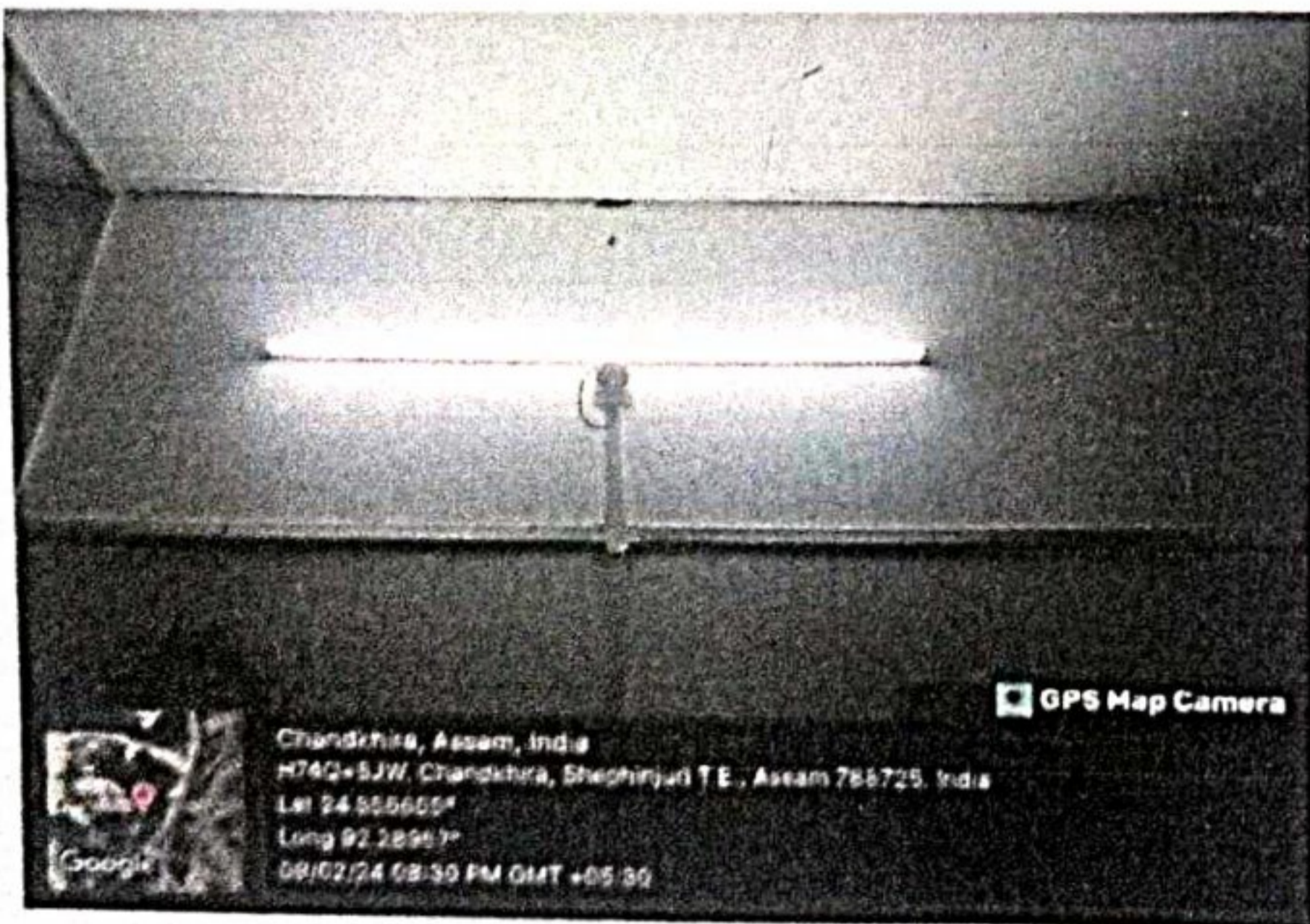
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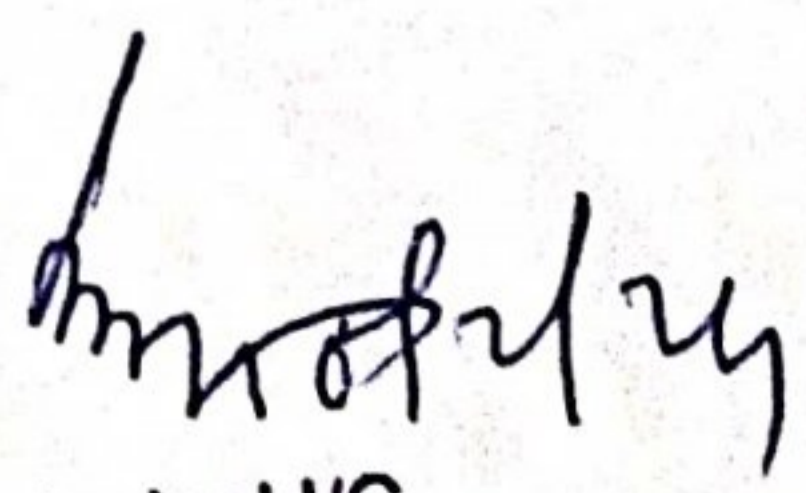


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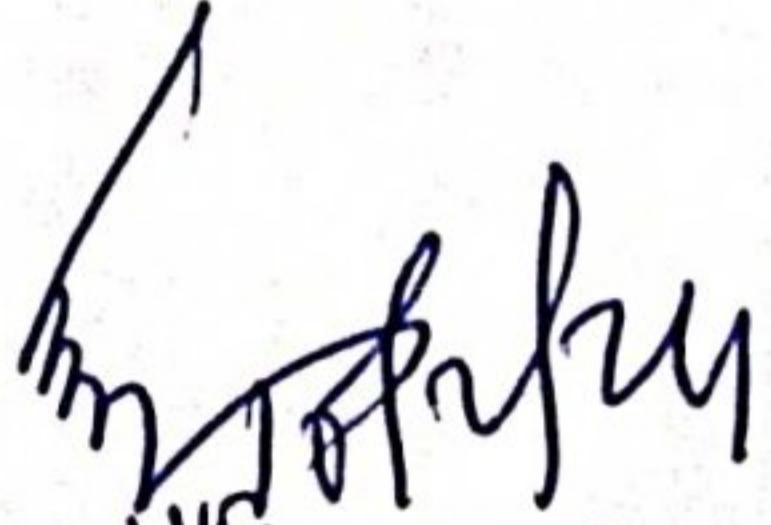



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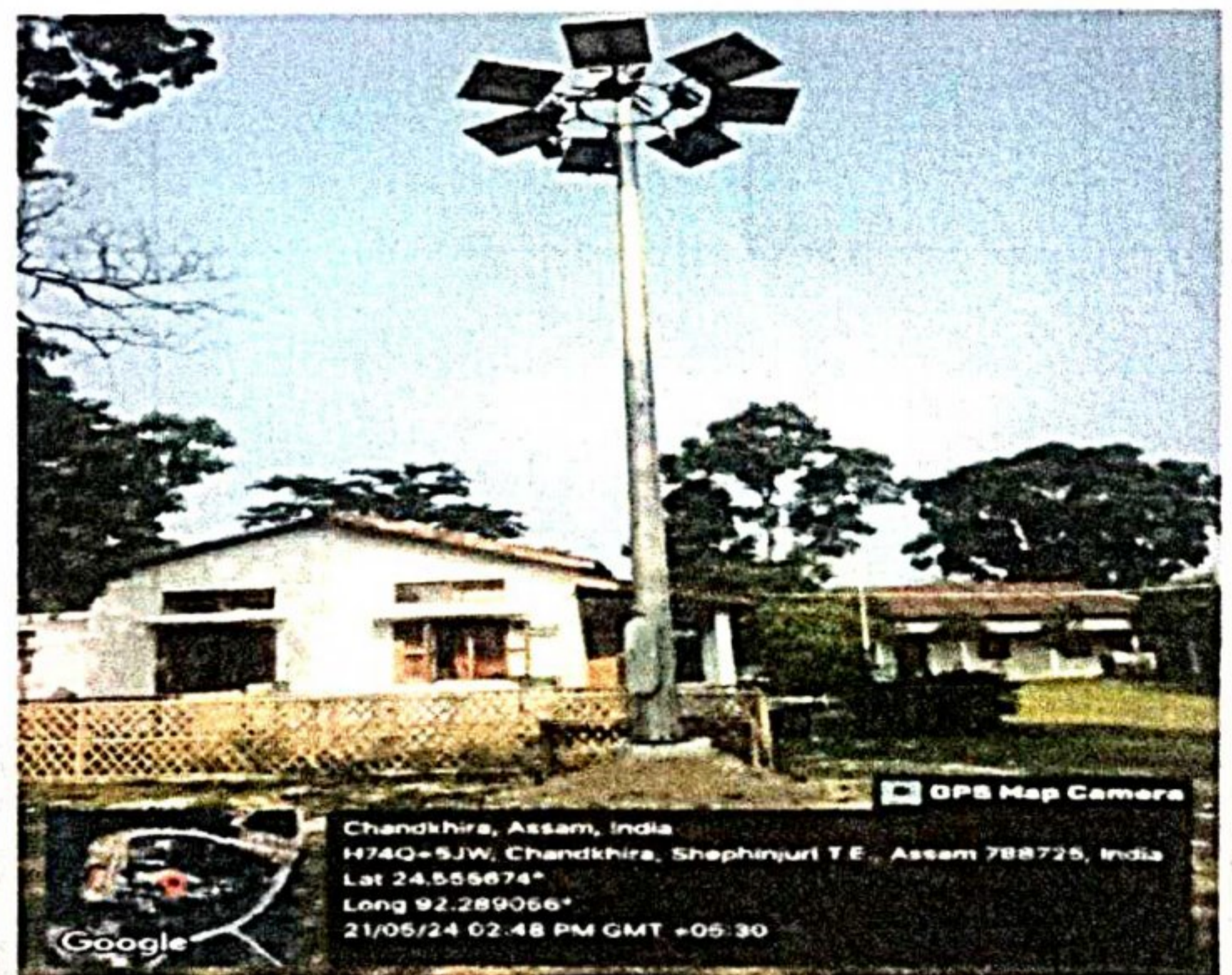
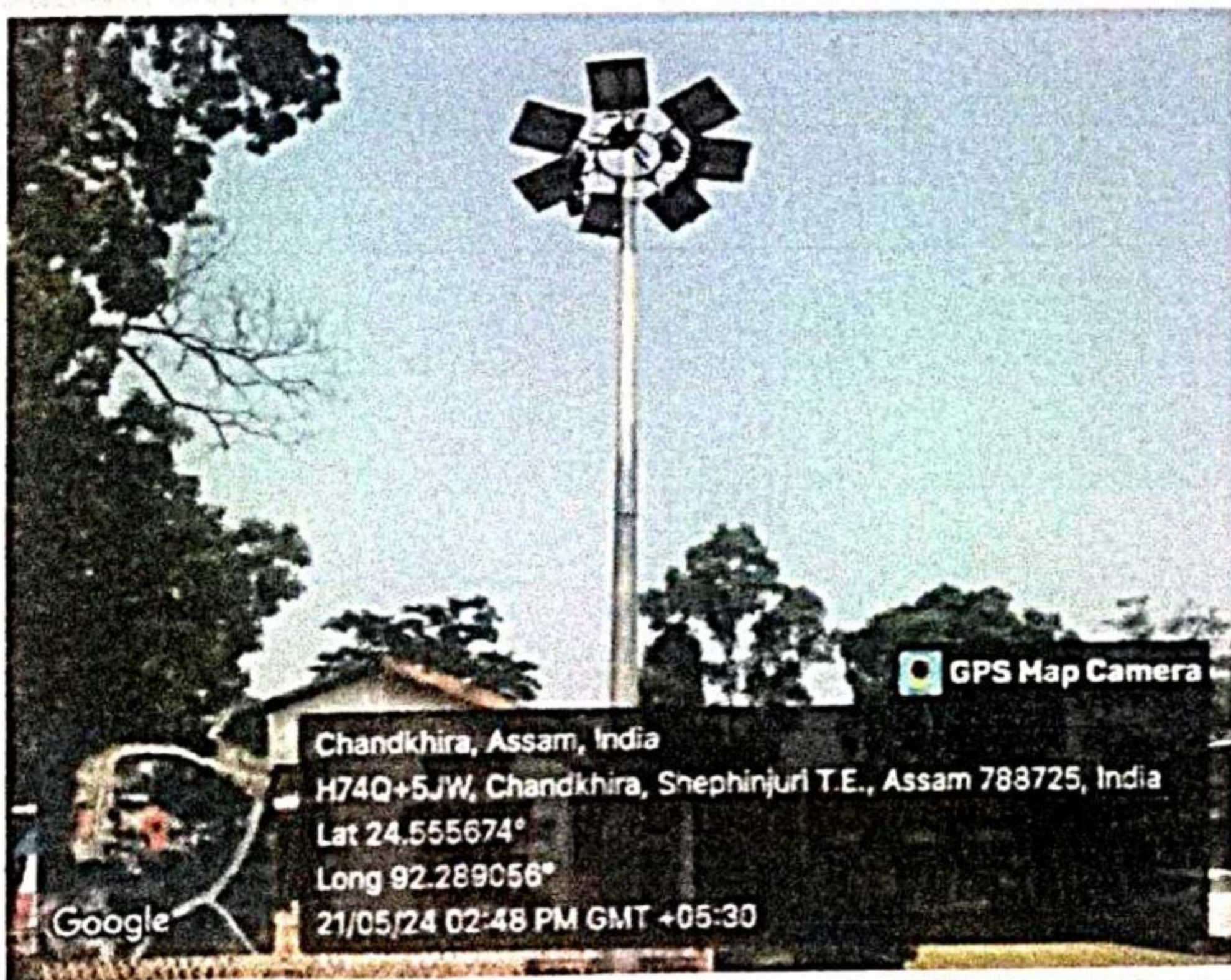
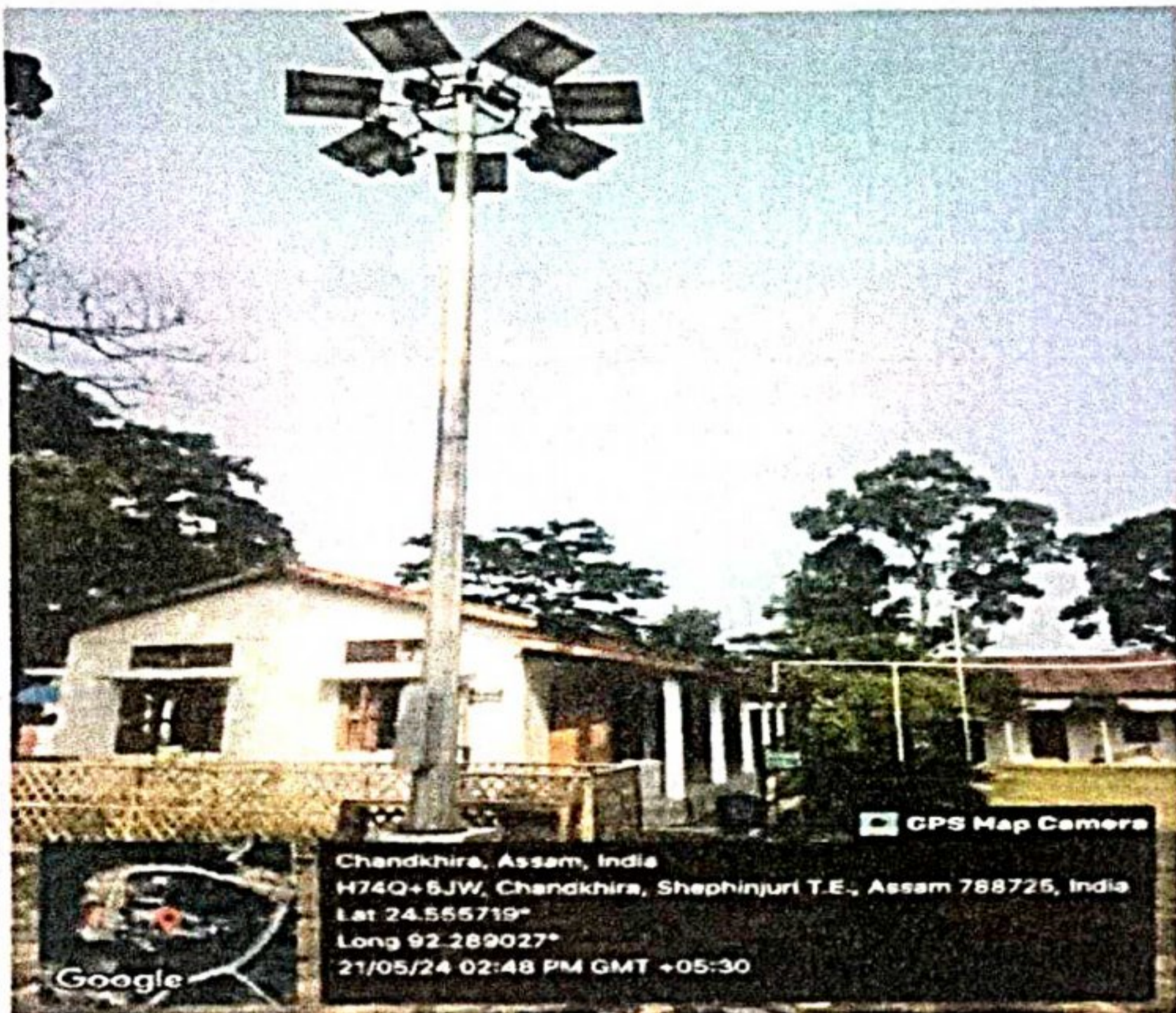
CONCLUSION

The Energy Audit report provides valuable insights into the institution's energy consumption and utilization. The college's overall energy consumption amounts to 8594 KW (equivalent to 286.46 units), with a contribution of 600W coming from renewable resources.


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High Mast Light installed in the Swami Vivekananda College Campus as an alternative source of energy and energy conservation for reducing electricity bill.

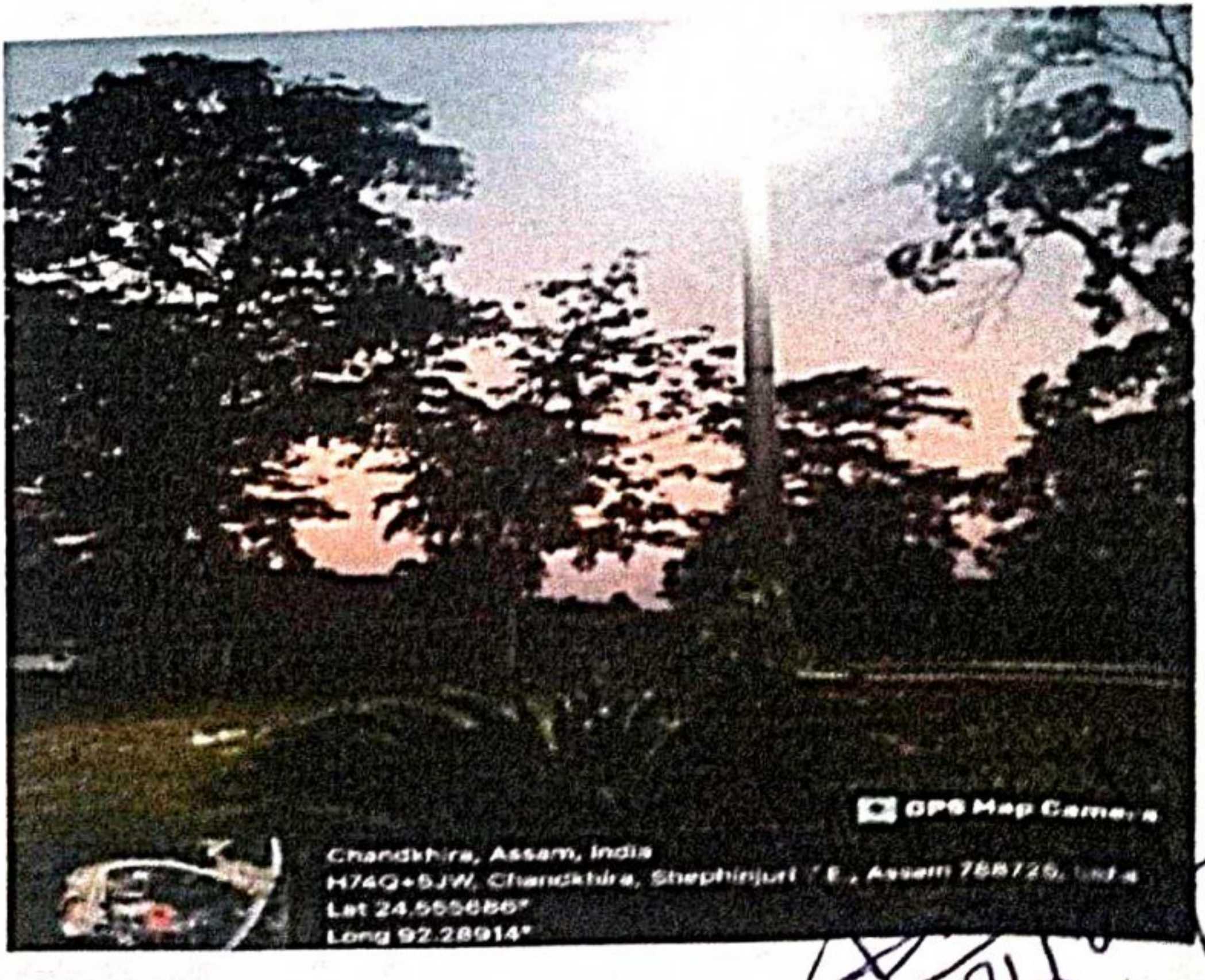
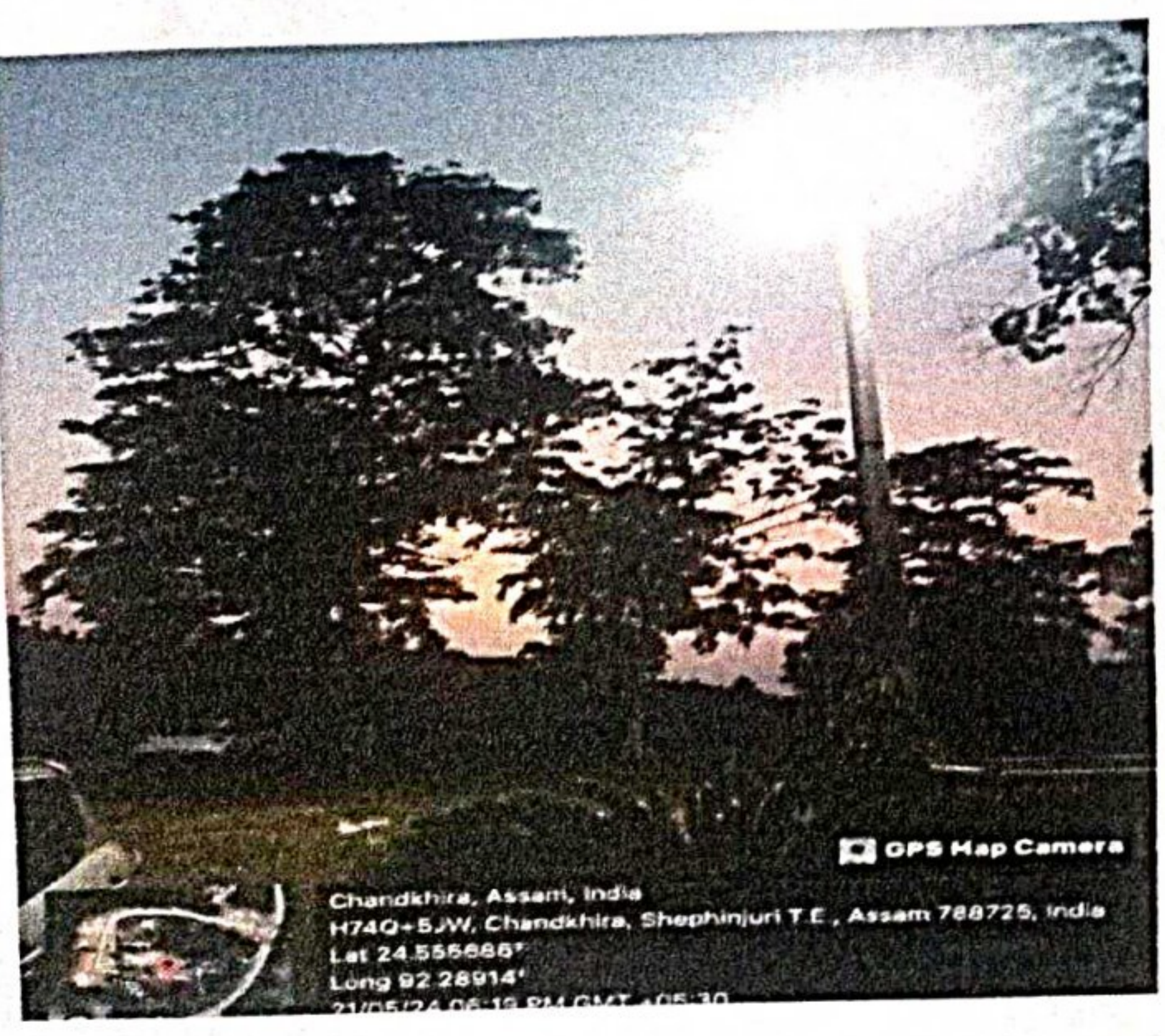
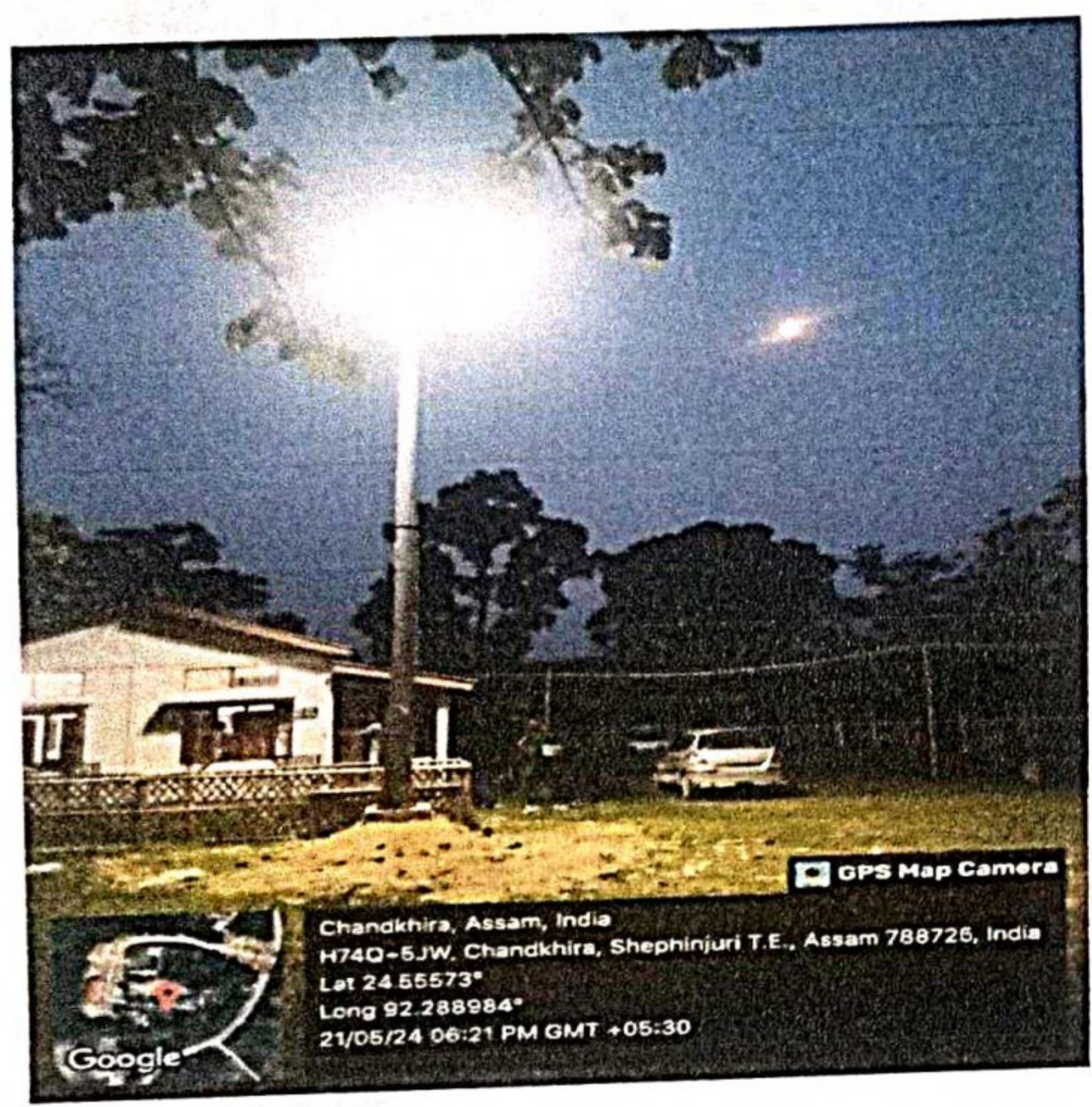


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High Mast Lightening view in the evening time at the college premises. Happy to see the beautiful moon light view along with High Mast Light. This is the best example of alternative source of energy.

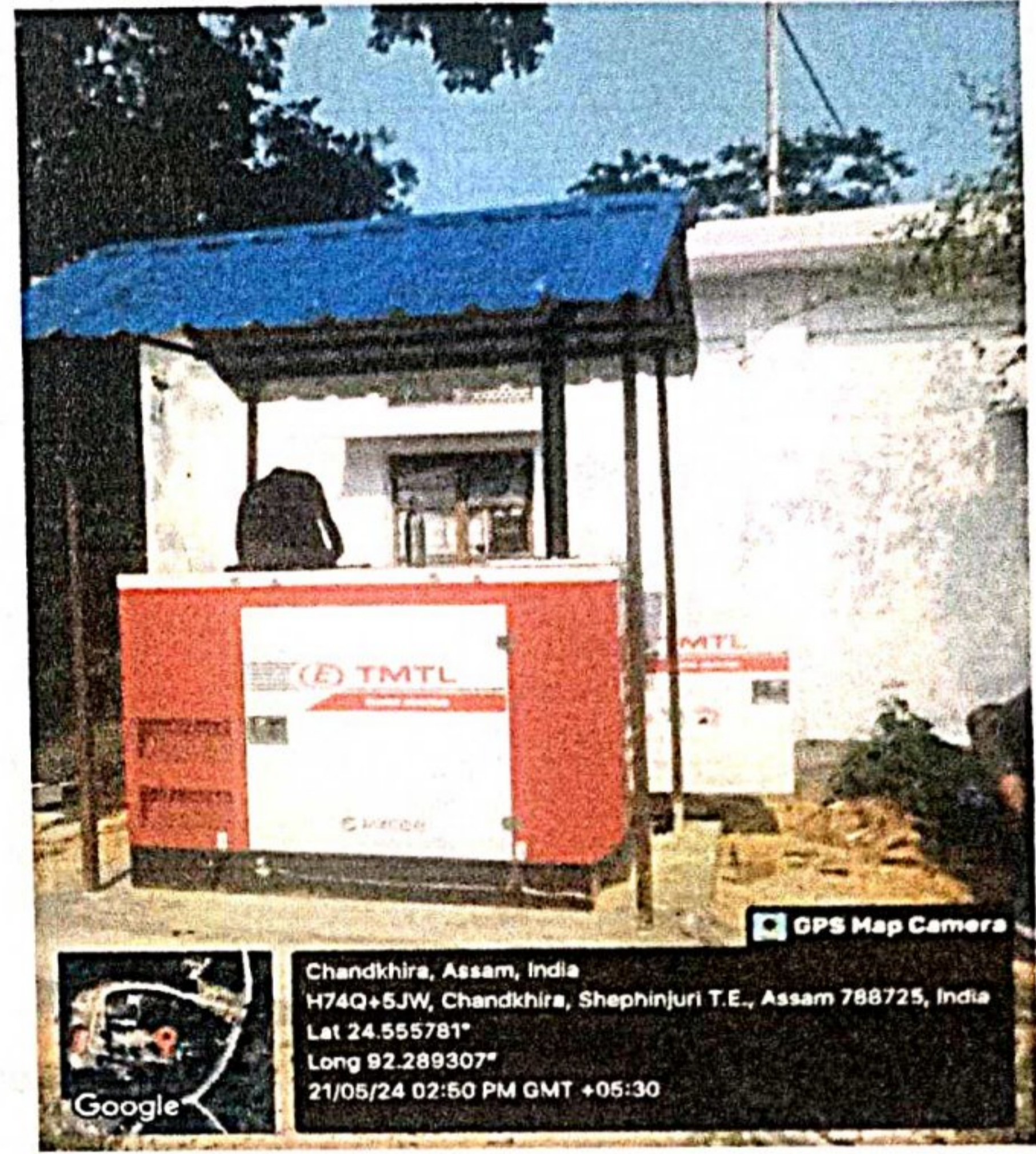
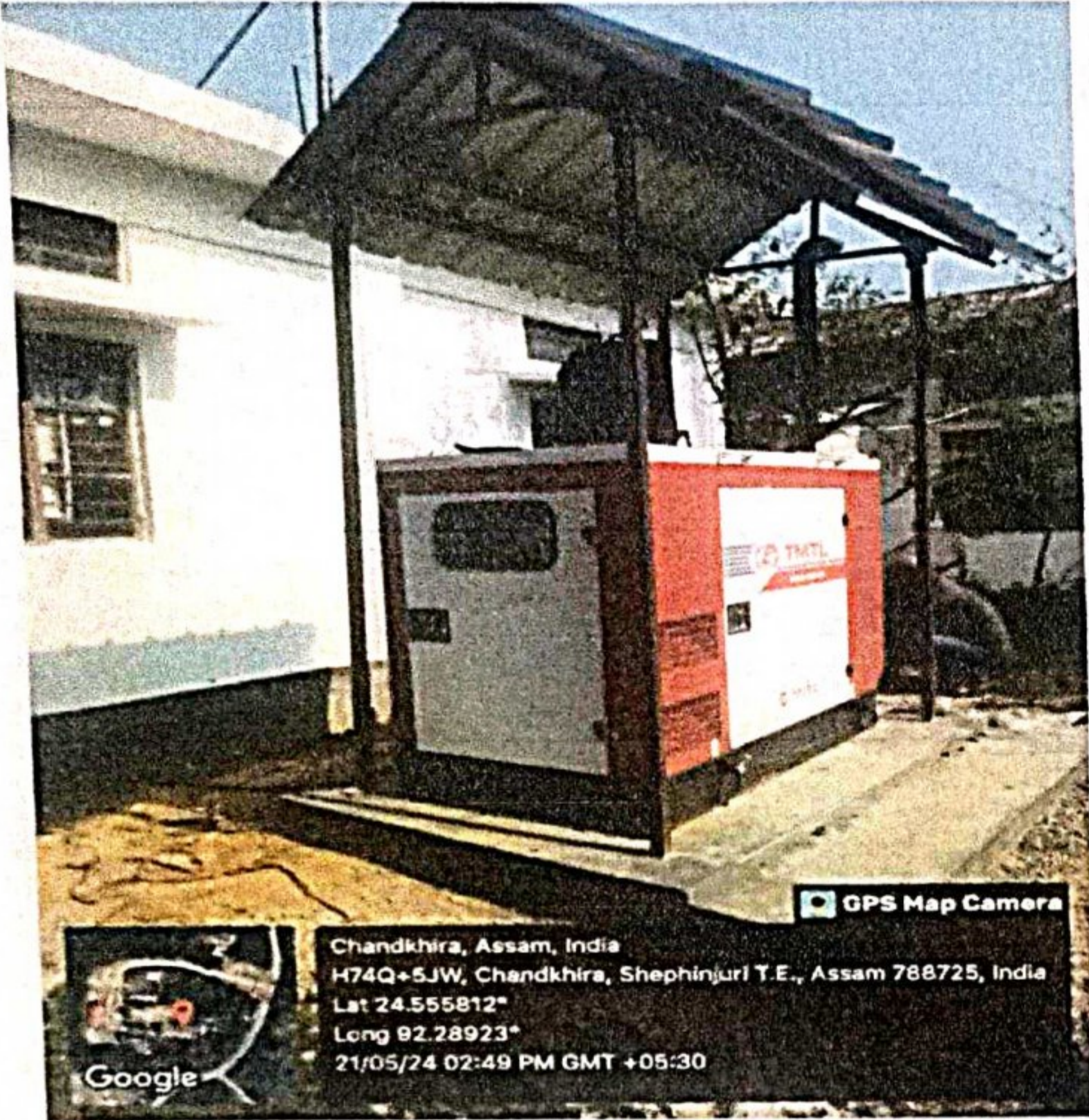
Night View



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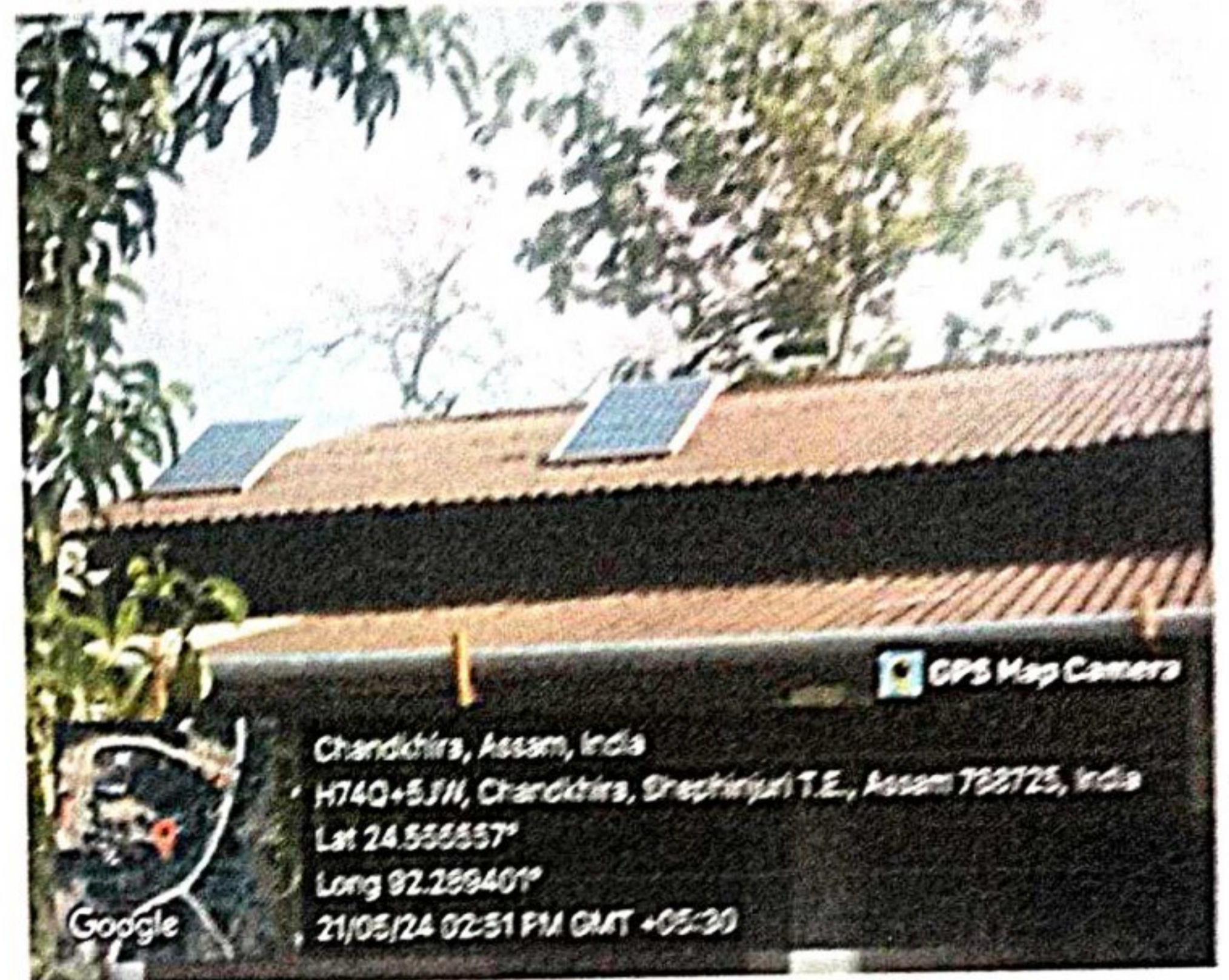
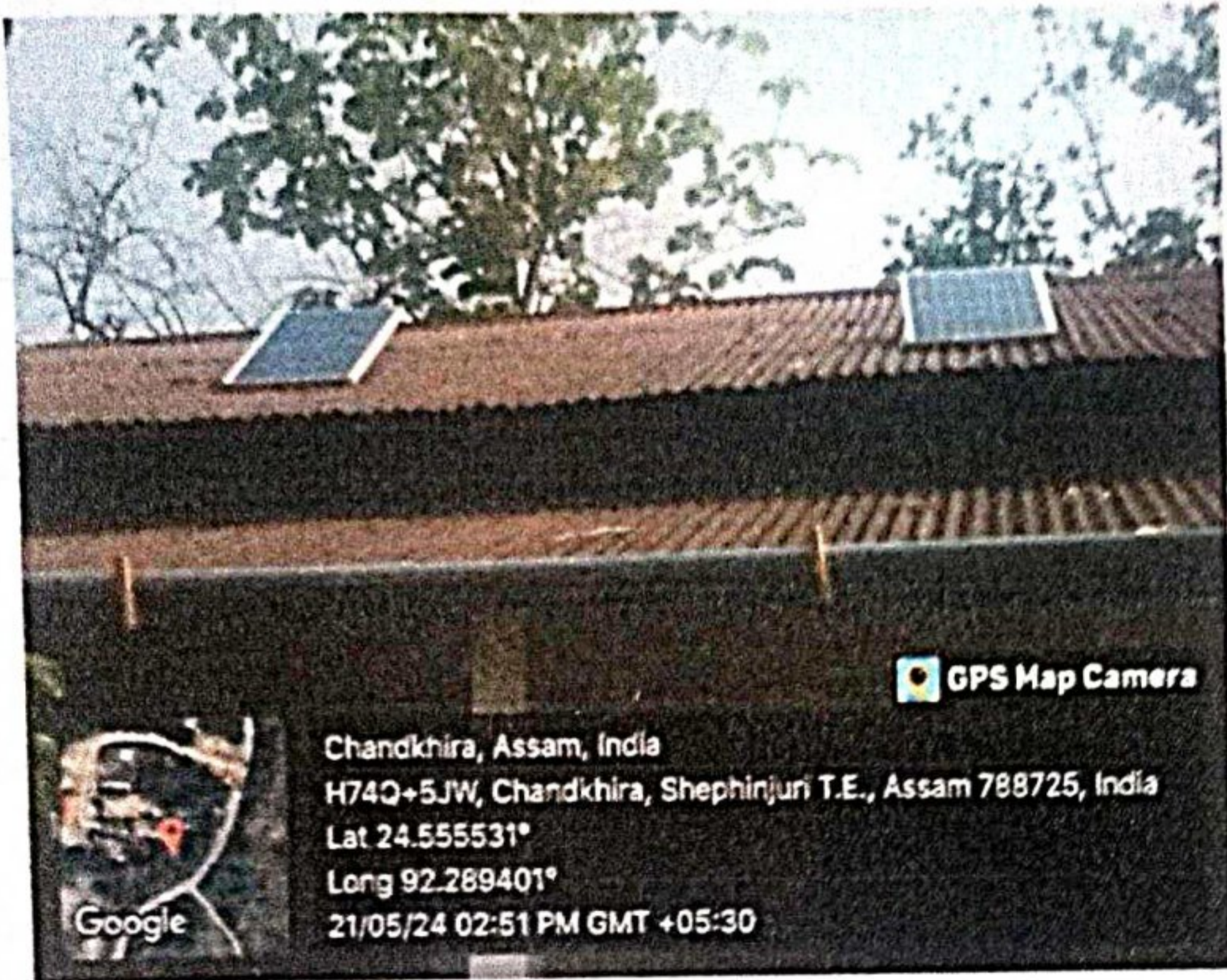
A 15KV-DG is installed in the Swami Vivekananda College Campus as an alternate source of energy and for providing 24x7 power back up service .



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Roof Top Solar panel is installed in the Swami Vivekananda College Campus as an alternative source of energy and energy conservation for reducing electricity bill.



Solar Fan is installed in the different places of Swami Vivekananda College Campus as an alternative source of energy and energy conservation for reducing electricity bill.



[Signature]
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