



<b>The Institution has facilities for alternate sources of energy and energy conservation Measures</b>	
1	Solar energy
2	Biogas plant
3	Wheeling to the Grid
4	Sensor-based energy conservation
5	Use of LED bulbs/ power efficient equipment

## SOLAR ENERGY

### Solar Power Panel

S.No.	Solar Panel	Place
1	On Grid 15 KW	Science Block
2	On Grid 5KW	Above the Canteen



### Solar Panel 10 KW in Academic (Science) Block



# ST. THOMAS COLLEGE (AUTONOMOUS)

THRISSUR, KERALA - 680 001

NAAC (4<sup>th</sup> Cycle): A++ Grade, 3.70 Score  
NIRF Ranking 2023: 57

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**Solar Panel of 5 KV Placed on above the Canteen**



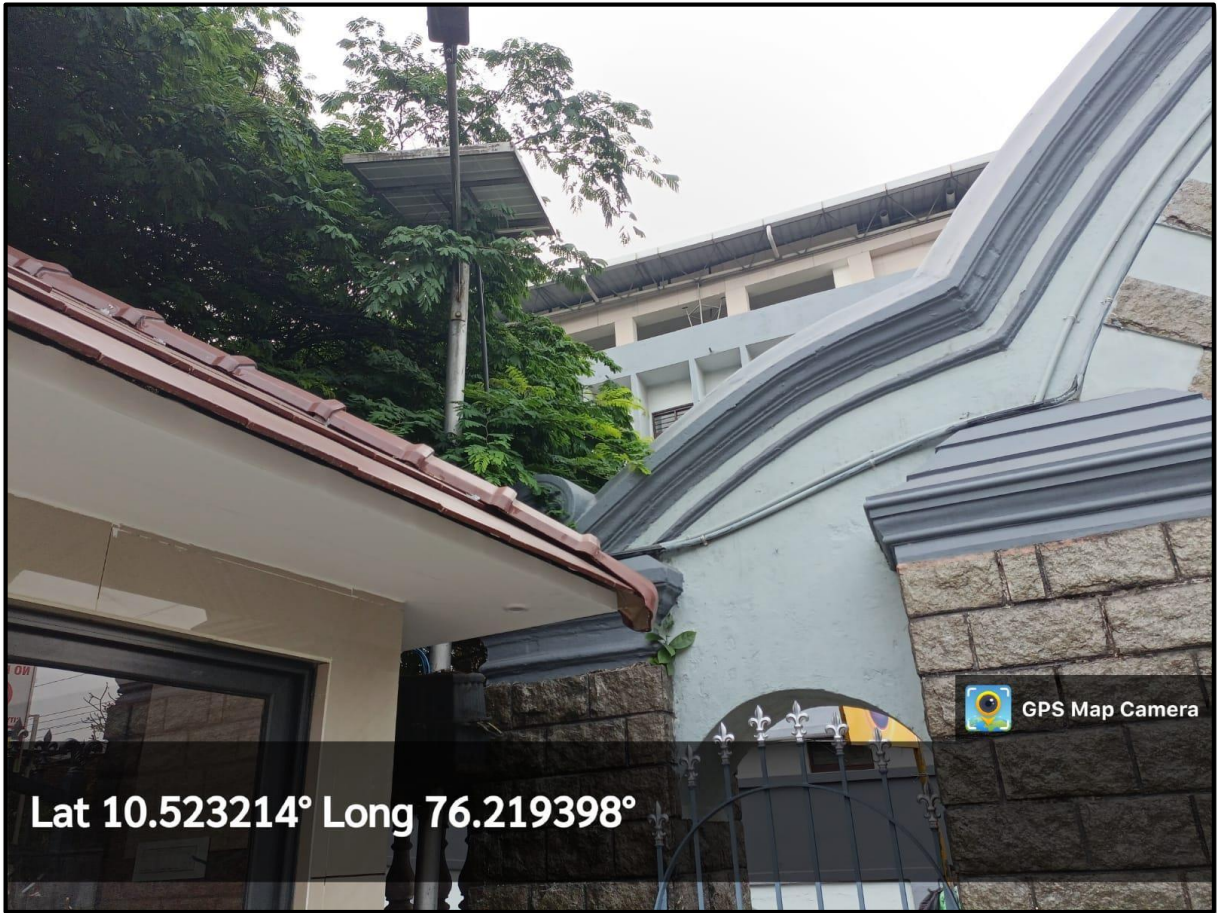
# ST. THOMAS COLLEGE (AUTONOMOUS)

THRISSUR, KERALA - 680 001

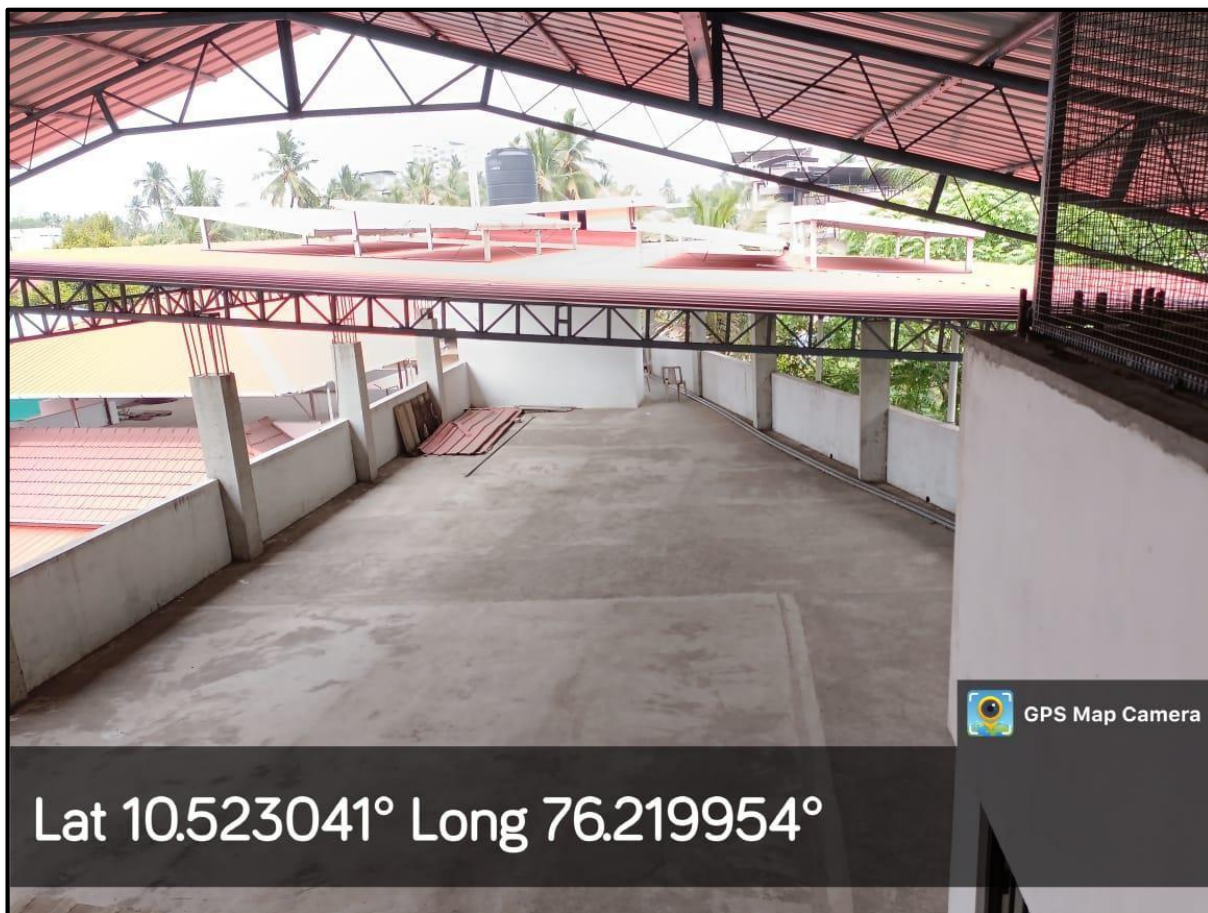
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**Solar light near Security cabin at Academic Block**



**Solar Panel of 4 KV Placed on above the Hostel**



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Lat 10.523245° Long 76.220807°

**Solar Recharge Battery at Jubilee Block**



## BIO GAS PLANT



**Bio Gas Plant in the Hostel**



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Lat 10.523468° Long 76.220572°

**Bio Gas Using in College Hostel**



## WHEELING TO THE GRID

ST.THOMAS COLLEGE (AUTONOMOUS)								
Electricity (Solar) Details								
Months	kWh - Grid Tied				kWh - Off grid			
	2017-18		2018-19		2019-20		2020-21	
	Grid	Off Grid	Grid	Off Grid	Grid	Off Grid	Grid	Off Grid
Apr		525		525	1575	525	1575	525
May		525		525	1575	525	1575	525
Jun		525		525	1575	525	1575	525
Jul		525		525	1575	525	1575	525
Aug		525		525	1575	525	1575	525
Sep		525		525	1575	525	1575	525
Oct		525		525	1575	525	1575	525
Nov		525		525	1575	525	1575	525
Dec		525		525	1575	525	1575	525
Jan		525		525	1575	525	1575	525
Feb		525		525	1575	525	1575	525
Mar		525		525	1575	525	1575	525
Total			0.00	6300.00	18900.00	6300.00	18900.00	6300.00
		0.00		6300.00		25200.00		25200.00



Lat 10.52329° Long 76.221043°

**Solar System In Hostel**



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Lat 10.523041° Long 76.219954°

**Power Guard Solar System in Hostel**




**Solar Grid in Academic Block**



## Permission for 20KVA Grid Tied Solar energy System

Government of Kerala  
Department of Electrical Inspectorate  
**Office of the Electrical Inspector**  
Bellmouth Buildings, Round South, Kurupparam Road, Thrissur - 680001.  
Email: eitthrissur@gmail.com  
Phone: - 0487-2423280, Email: - @cekerala.gov.in



**Proceedings of the  
Electrical Inspector, Thrissur**

(Present:- R.Balagopal)

**Subject:-** Installation of 20 KVA Grid Tied solar energy system at the premises of M/s.St.Thomas College Thrissur - Sanction for energisation - orders issued - reg:-

**Read:-**

1. Scheme approval No. B1-5744/18/EIR dated 12/07/2018
2. Completion report No. Nil received on 24/11/2018 of M/s.Jos Power Controls, IDA, Angamaly, Ernakulam - 683 573
3. Inspection conducted on 27/11/2018
4. Nonconformities reported under letter number B1-5744/18/EIR dated 28/11/2018
5. Compliance report furnished under cover of letter No.Nil received on 18/01/2019 of M/s.Jos Power Controls, IDA, Angamaly, Ernakulam - 683 573

---

**Order No. B1-5744/18/EIR dated 19/01/2019**

Sanction under Section 54 of The Electricity Act, 2003 and Regulation 32 of the CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 is hereby accorded for energisation of the electrical installation covered under the Completion Report read as 2nd above and installed at the premises of M/s.St.Thomas College Thrissur with the following specifications subject to the conditions mentioned here under.

**Specifications:-**

**Inverter**  
20KVA  
Make : Growatt  
Model No : Growatt 20000UE  
Max DC Voltage-1000 V  
Max AC Voltage-400 V

**Solar Panel**  
Make:EMMVEE  
Rated Power: 250 Wp  
No of panels per String:20  
No of Strings -3 Nos.

**MV Switch Gears**

AC Isolator	32A - 1No.		
DC Isolator	40A - 1No.		
SSB-2(Academic BL)	250A - 1No.	200A - 1No.	160A - 1No.
	125A - 3Nos.		

**Conditions:-**

- 1 -

- 1276 HT/EHT



1. Any addition or alteration to the existing installation shall be carried out only after getting prior written approval from this office.
2. The owner should rectify any defects that may be pointed out during subsequent inspection of the installation by the undersigned.
3. All the pre-commissioning tests shall be recorded for ready reference.
4. Electricity duty for the units produced from the solar energy system should be remitted to the government when demanded.
5. The whole installation should be in conformity with CEA (Technical Standards for connectivity of the distributed generation resources) Regulation, 2013 and KSERC (Grid interactive distributed solar energy systems) Regulation, 2014.
6. Consent from Licensee shall be obtained in case of grid tied system.

sd/-  
**Electrical Inspector**

To  
M/s.St.Thomas College Thrissur

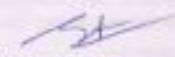
Copy to:

1. M/s.Jos Power Controls, IDA, Angamaly, Emakulam - 683 573 [Lic. No.:- CA281]
2. The Assistant Engineer, KSEB, Electrical Section:- TCED I
3. Stock File/Computer Data
4. Office Copy

Forwarded by Order

IR Case No.1278  
New Case  
relations-7.7



  
**Deputy Electrical Inspector**



**Agreement with Co-operation for Connection Solar Energy System**

**भारतीय गैर न्यायिक**

दस  
रुपये  
**रु.10**

INDIA

REVALIDATED TO  
**Rs. 100**  
(ONE HUNDRED RUPEES)


**INDIA NON JUDICIAL**

കേരളം കേരल KERALA 29AA 316144

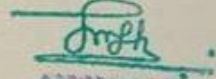
**AGREEMENT FOR CONNECTION SOLAR ENERGY SYSTEM TO THE  
DISTRIBUTION SYSTEM OF THE LICENSEE**

This Memorandum of Agreement is made on this (date) 21<sup>st</sup> day of (Month) June year 2019  
at (location)....., Thirssur between (name of the eligible consumer).....  
the eligible consumer (hereinafter referred to as 'consumer')...FR. BURSAR.....  
residing at (address) ST. THOMAS' COLLEGE (AUTONOMOUS), THRISSUR - 1  
first party.

(.....2)



Fr. Bursar  
St. Thomas' College  
(Autonomous)  
Thirssur - 680 001



ASSISTANT SECRETARY  
ELECTRICITY DEPARTMENT  
THRISSUR MUNICIPAL CORPORATION

ROSY. K. JOSE  
VENDOR No 44  
M. S. ROAD, THRISSUR

28 JAN 2019  
THRISSUR

DIST. TREASURY STAMP DEPT.



# ST. THOMAS COLLEGE (AUTONOMOUS)

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iqac@stthomas.ac.in

NAAC 5<sup>th</sup> Cycle Accreditation

**भारतीय गैर न्यायिक**

**दस  
रुपये  
रु.10**

**TEN  
RUPEES  
REVALIDATED TO  
Rs. 100  
(ONE HUNDRED RUPEES)  
Rs. 10**

*Handwritten signature and date 21/1/19*

**INDIA NON JUDICIAL**

കേരളം കേരल KERALA 2 29AA 316145

AND

The Thrissur corporation Electricity Department having its registered office at Thrissur represented by Shri Asst. Secretary (here enter name, designation and address of the authority hereinafter referred to as 'The licensee' (which expression shall unless excluded by or repugnant to the context or meaning thereof the deemed to include its successors, representatives and assignees) as **second party**, of the agreement.

Whereas, the consumer has installed a solar energy system at the premises owned and possessed by him/her or owned by and possessed by the consumer under a valid lease agreement (strike our whichever is not applicable) and has requested the licensee to provide connectivity to the said plant.

*Handwritten signature*  
**Fr. Bursar**  
St. Thomas' College  
(Autonomous)  
Thrissur - 680 001

*Handwritten signature* (.....3)  
**ASSISTANT SECRETARY**  
ELECTRICITY DEPARTMENT  
THRISSUR MUNICIPAL CORPORATION

**ROSY K. JOSE**  
VENDOR No. 44  
M.O. ROAD, THRISSUR

*Handwritten notes:* 760918, 21/1/19, 21/1/19



And whereas, the licensee agrees to provide to the consumer, a Solar Plant Identification Number (SPIN) ..... as scheduled in the agreement for the electricity generated from the above plant having capacity ..... KWp/MWp as per condition of this agreement and the regulations or orders issued by the Kerala State Electricity Regulatory Commission from time to time;

And whereas the consumer has, in addition to those automatic and inbuilt isolation devices within inverter and external manual relays, installed a manually operated isolating switch and associated equipment with sufficient safeguards between the solar energy system and the distribution system of the licensee to prevent injection of electricity from his solar energy system to the distribution system of the licensee when the distribution system is de-energized.

And whereas the consumer has assured that in case of a power outage in the system of the licensee his/her plant will not inject power into the distribution system of the licensee and has produced separately the documents substantiating this assurance which from part of this agreement, as if incorporated herein;

And whereas the consumer has undertaken that all the equipment connected to the distribution system comply with relevant international (IEEE/IEC) or Indian standards (BIS) and that installations of electrical equipment comply with the relevant provisions of the Central Electricity Authority (measures relating to safety and Electric Supply) Regulations 2010;

And whereas the consumer undertakes that he/she is in possession of all the necessary approvals and clearances including sanction from Electrical Inspector, as specified in relevant regulations for connecting the solar energy system to the distribution system for commissioning the solar energy system.

And whereas, the consumer has deposited an amount of Rs. .... (Rupees) in words ..... by cash / DD as per receipt / DD No ..... dated ..... at Electrical Section Office ..... as security deposit for the installation of solar meter and net meter and shall remit the meter rent, charged by the licensee at the rates approved by the Kerala State Electricity Regulatory Commission from time to time for the satisfactory fulfillment of this agreement (strike out this portion if the meter provided by the consumer at his/her cost).

And whereas the consumer has provided the solar meter and the net meter at his/her cost, which has been tested certified and installed by the licensee. (strike out his portion if the meter is provided by the licensee)

**Now therefore, both the parties hereby agree as follows:-**

1. The net-metering connection shall be governed by the provisions contained in the Kerala State Electricity Regulatory Commission (Grid Interactive Distributed Solar Energy Systems) Regulations, 2014 as amended from time to time and also subject to the condition that the solar energy system meets the requirements as per the provisions contained in Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013.



*[Signature]*  
Fr. Bursar  
St. Thomas College  
(Autonomous)  
Thrissur - 680 001

*[Signature]*  
.....4  
ASSTANT SECRETARY  
ELECTRICITY DEPARTMENT  
THRISSUR MUNICIPAL CORPORATION





2. The Licensee shall have the sole authority to decide based on the results of necessary studies, the interconnection point to the solar energy system.
3. If the consumer's solar energy system either causes damage to and/or produces adverse effects affecting other consumer or assets of the licensee. The consumer will have to disconnect solar energy system immediately from the distribution system upon direction from the licensee and correct the defect at his own expense prior to connection.
4. The licensee shall have access to the metering equipment and disconnecting means for solar energy system in all required situations.
5. The licensee shall have the right to disconnect solar energy system from the distribution system of the licensee in emergency, if it is found that at that point in time providing service through the net metering system is not safe to the grid as a whole.
6. (a) The consumer indemnifies the licensee for the damages or adverse effects, if any from the negligence or international defective operation in the connection and operation of the solar energy system of the consumer.  
(b) The licensee indemnifies the consumer for the damages or adverse effects, if any, from the negligence or international defective operation in the connection and operation of the distribution system of the licensee.
7. The licensee shall not be liable for delivery to or realization by the eligible consumer of afiscal or other incentives provided by the Central/State Government or any other authority.
8. All the commercial settlements under this agreement shall follow the provisions of the Kerala State Electricity Regulatory Commission (Grid interactive Distributed Solar Energy Systems) Regulations 2014.
9. The Consumer may terminate this agreement after giving thirty days (30 days) clear notice in writing to the authorised authority of the licensee.
10. The Licensee has the right to terminate this agreement at any point in time after giving 30 days' prior notice, if consumer breaches any terms of this agreement and in cases where such breaches could be rectified and the same are not provided/informed within 30 days of written notice from the licensee about the breach.
11. The consumer agrees that upon termination of this agreement, he must disconnect the solar energy system from distribution system of the licensee in a timely manner to the satisfaction of the licensee.
12. The consumer shall have the right to bank and use the electricity generated and injected in excess over his/her full consumption, in to the distribution system of the licensee by the solar energy system. subject to the conditions specified in the Kerala State Electricity Regulatory Commission (Grid interactive Distributed Solar Energy systems) Regulations, 2014.
13. The consumer shall have the right to open access for wheeling the electricity generated in excess by 500 units over the consumption, by the solar energy system installed in the premises of the consumer detailed under item II of the schedule attached and shall be used in the premises owned by the consumer and in the order of preference as detailed under item III of the attached schedule.



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St. Thomas' College  
(Autonomous)  
Thrissur - 680 001

(.....5)  
ASSISTANT SECRETARY  
ELECTRICITY DEPARTMENT  
THRISSUR MUNICIPAL CORPORATION



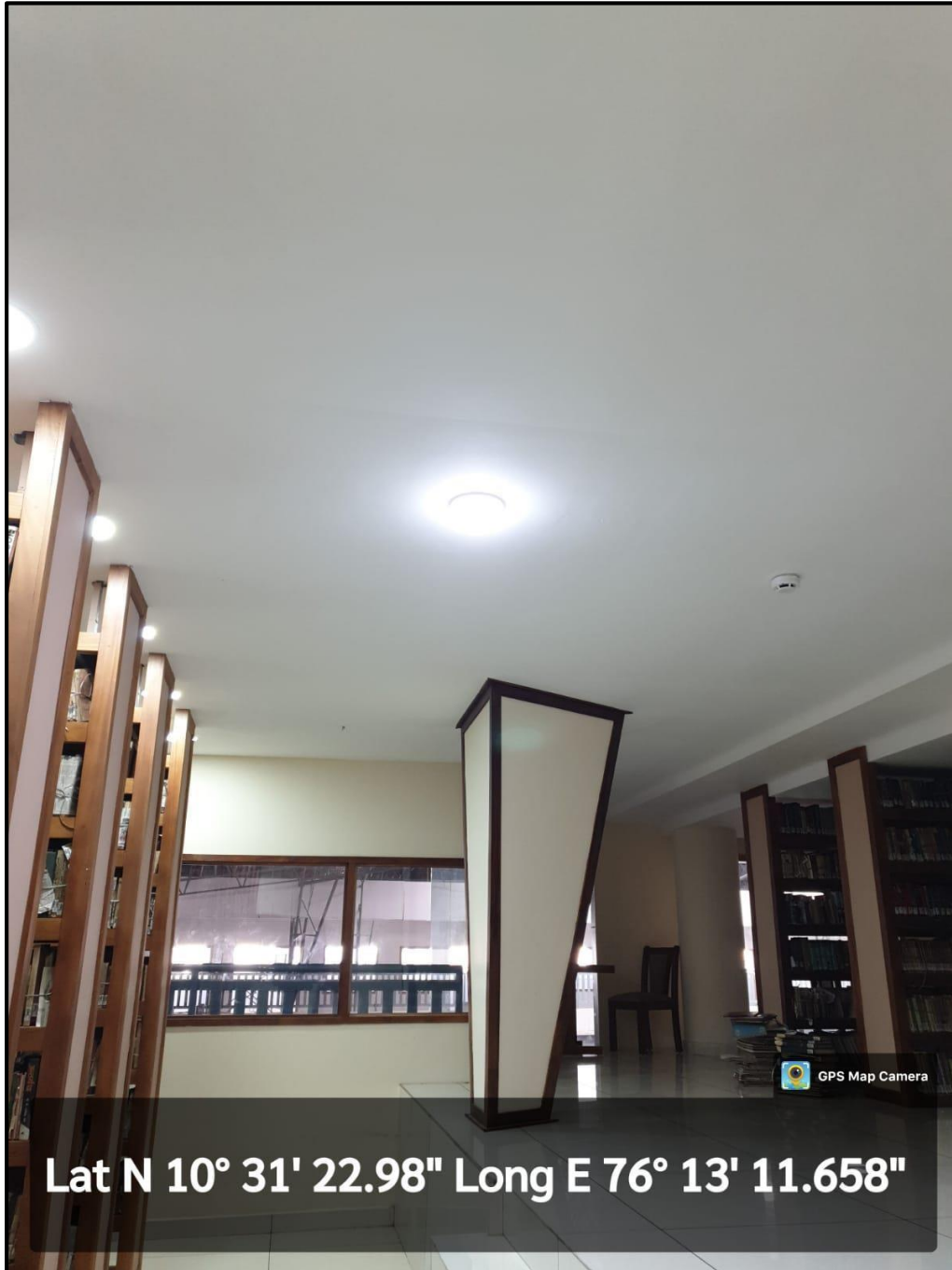
**ST. THOMAS COLLEGE (AUTONOMOUS)**  
THRISSUR, KERALA - 680 001

NAAC 5<sup>th</sup> Cycle Accreditation

NAAC (4<sup>th</sup> Cycle): A++ Grade, 3.70 Score  
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## SENSOR-BASED ENERGY CONSERVATION





**Sensor Lights in Library**



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**Sensor Light in Administrative Block Guest Room**

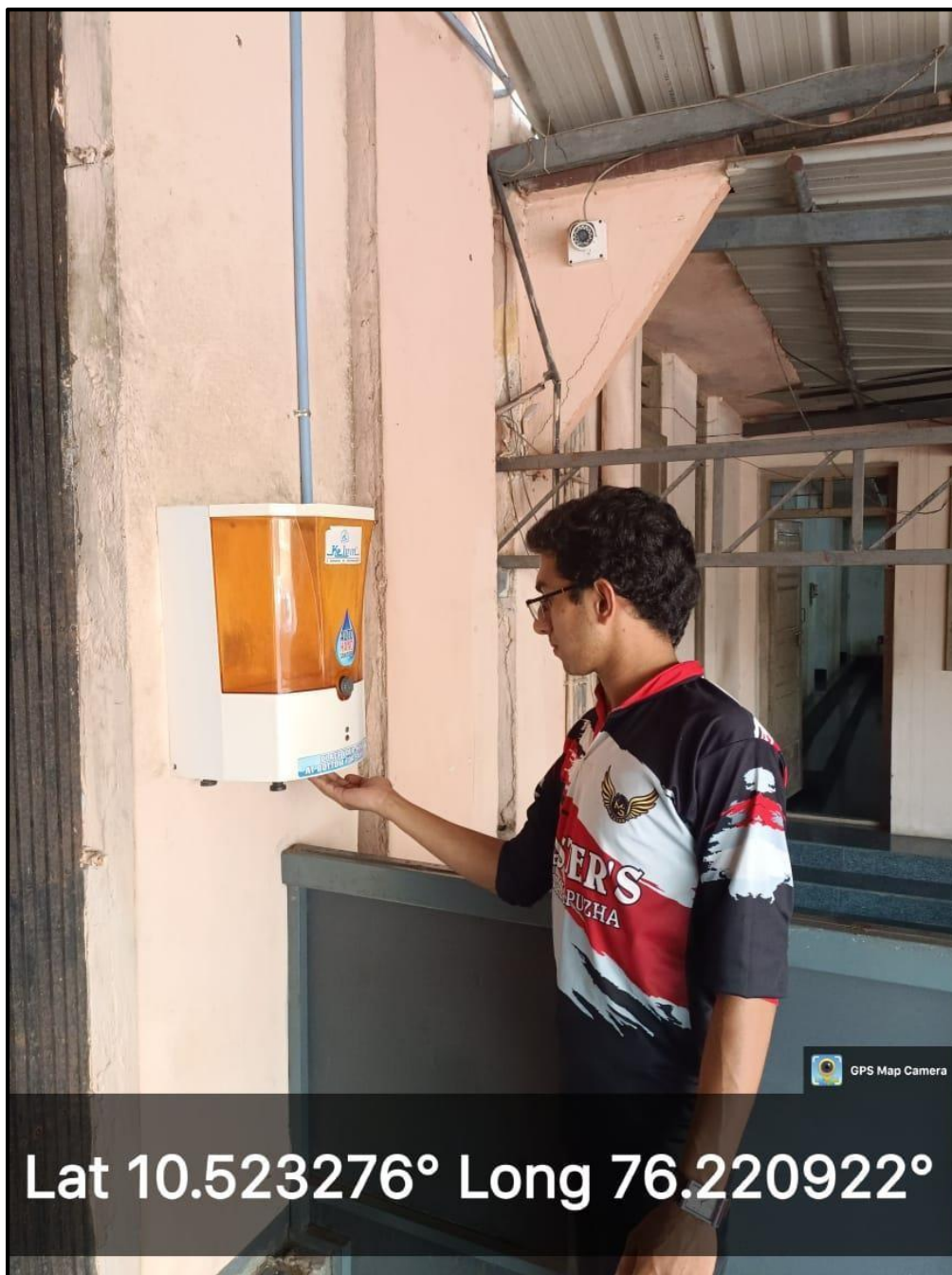


**Fully Automatic Motion Sensor Hand Free Sanitizer at Science Block**



Lat 10.523092° Long 76.219608°

**Fully Automatic Motion Sensor Hand Free Sanitizer at  
Academic Block**



Lat 10.523276° Long 76.220922°

**Fully Automatic Motion Sensor Hand Free  
Sanitizer at Hostel**

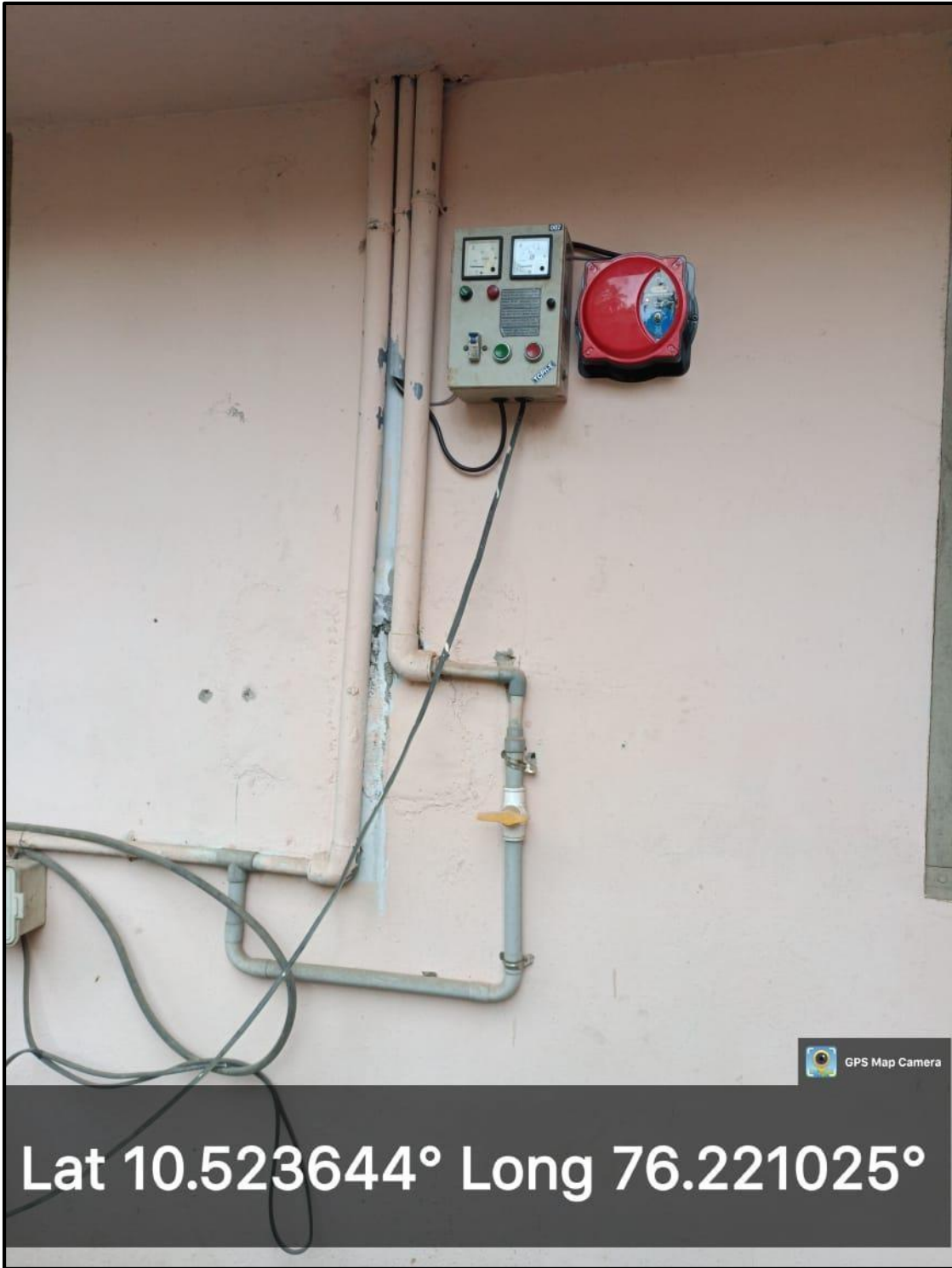


**Fully Automatic Motion Sensor Hand Free Sanitizer at Jubilee Block**



**Fully Automatic Water Tank Level Controller  
at Academic Block**



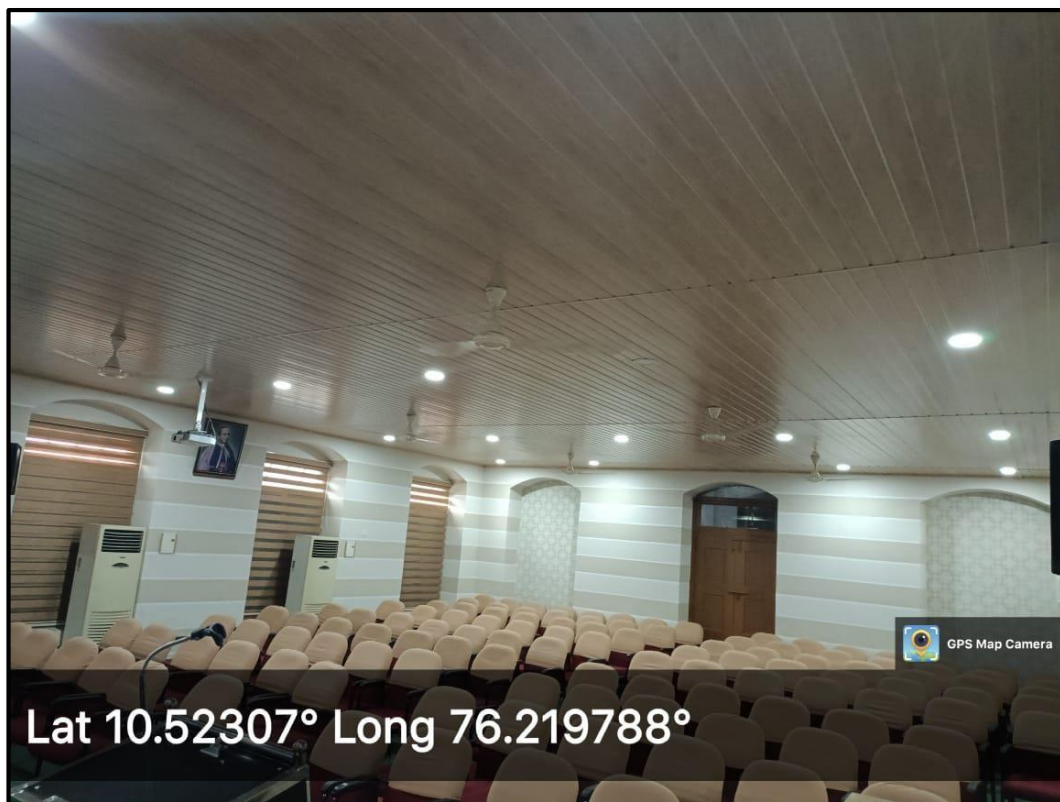


Lat 10.523644° Long 76.221025°

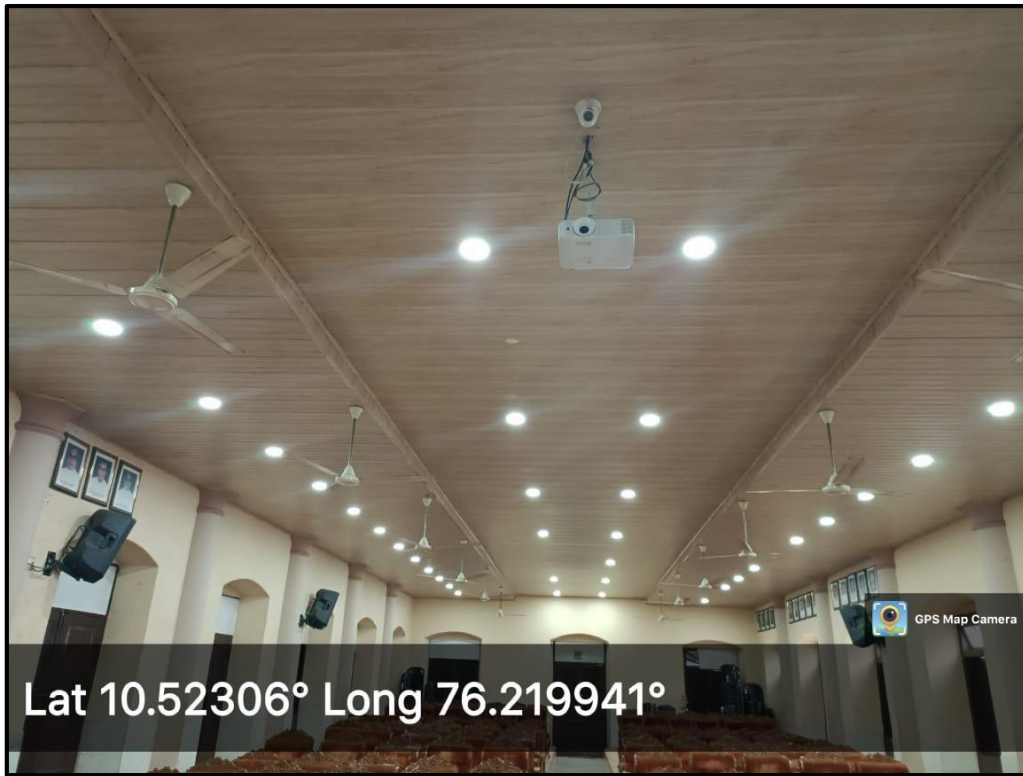
**Fully Automatic Water Tank Level Controller  
at Jubilee Block**

## USE OF LED BULBS/ POWER EFFICIENT EQUIPMENT

Sl.No.	Place	Energy Saving Super Fans	LED Lights	LED TV/Video Wall / Interactive Board
1	Academic Block	80	821	10
2	Administrative Block	48	268	10
3	Jubilee Block	13	59	4
4	Boys Hostel			2
5	Sports Hostel	24	13	
6	Indoor Stadium		25	



**LED lights and Energy Savings super fans in Menacherry Hall**



Lat 10.52306° Long 76.219941°

**LED lights and Energy Savings super fans in Medlycott Hall**

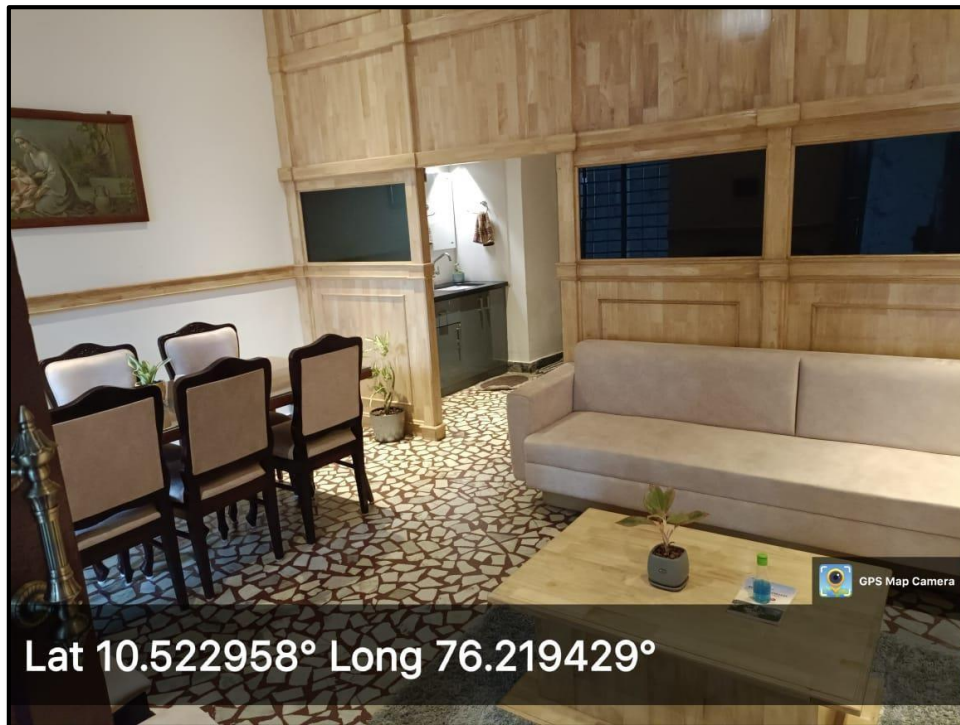


Lat 10.523034° Long 76.219615°

**LED lights in College Office**



**LED lights and Energy Savings super fans in Mar Kundukulam Hall**



**LED Lights in Guest Room Administrative Block**



**Led Lights College Hostel**



**LED Lights and Energy Saving Super Fans in  
Conference Hall Library**



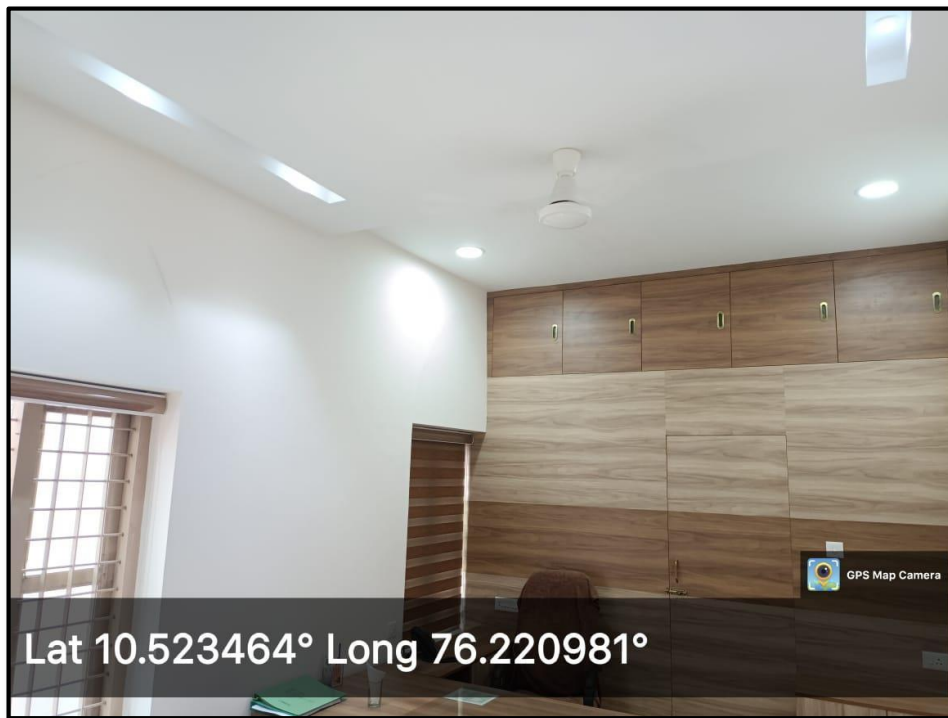
### LED Lights and Energy Saving Super Fans in Conference Hall Library



### LED lights and Energy Savings super fans in Library Reading Area



**LED lights in Electronics Lab Jubilee Block**



**LED lights in Vice Principals Room in Jubilee Block**



## LED TV/VIDEO WALL/INTERACTIVE PANEL



Lat 10.523537° Long 76.219149°

**LED Video Wall in Library Conference Hall**





**Interactive Board in Menachery Hall**

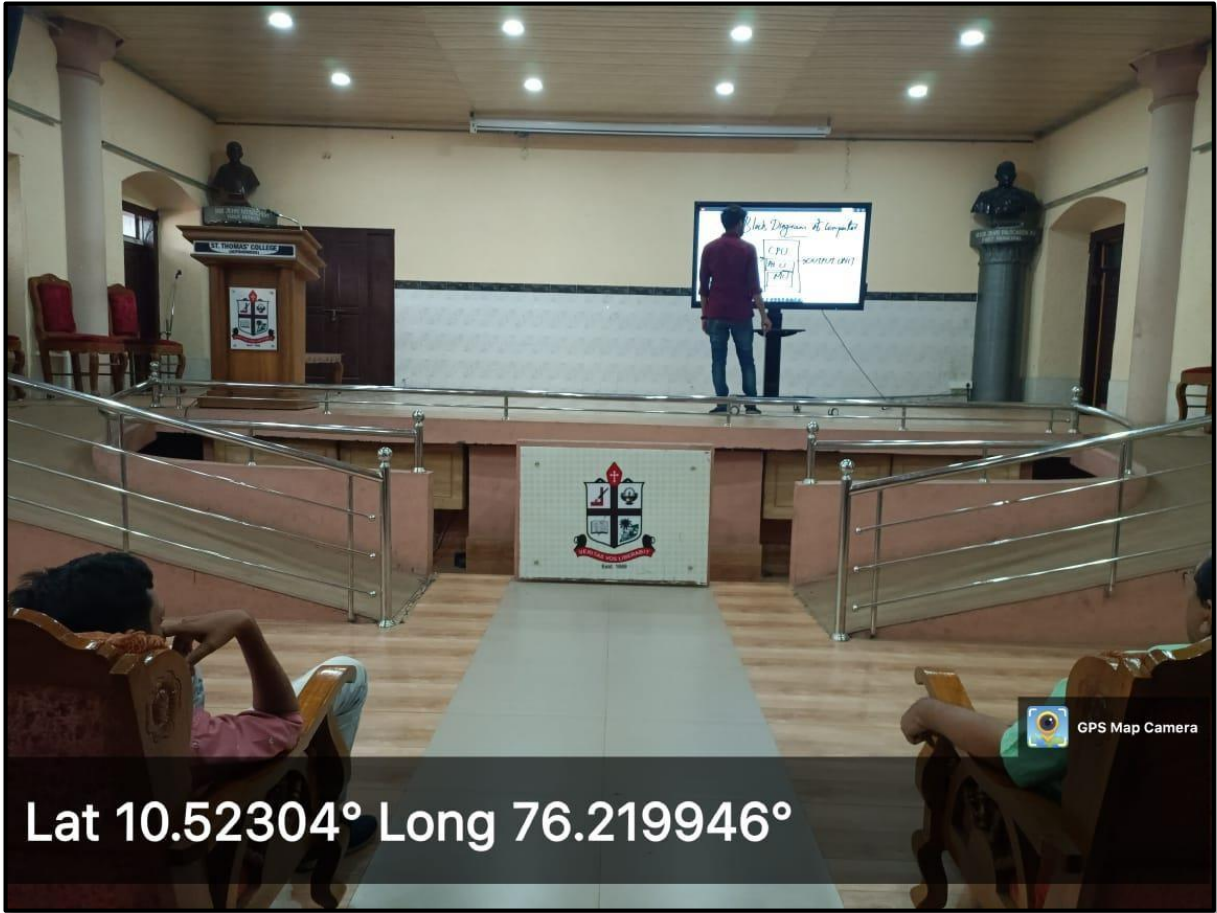


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**Interactive Board in Medlycott Hall**



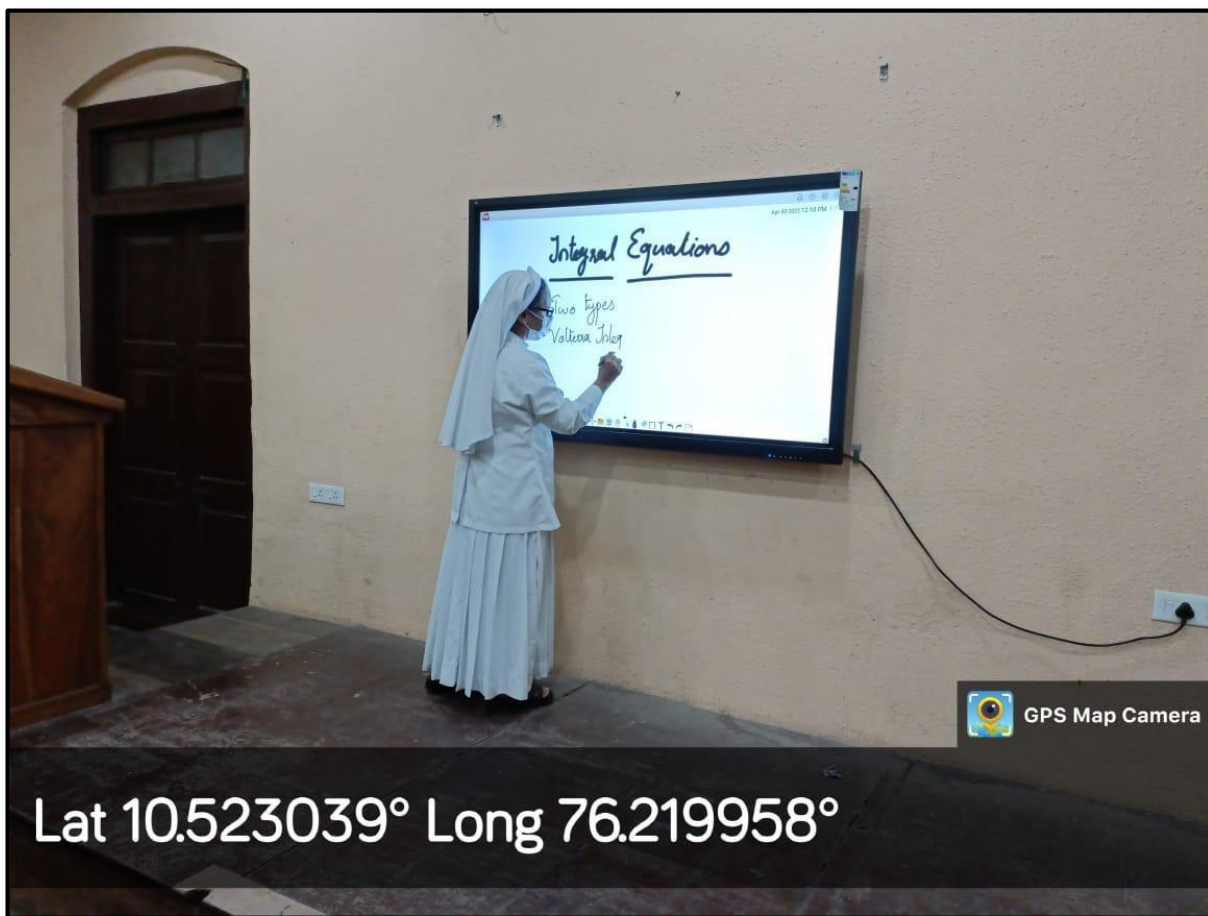
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**Interactive Board in Francis Vazhapilly Seminar Hall**



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**LED TV in Palocaren Academic Block**



**LED TV in Jubilee Block**



Lat 10.523088° Long 76.219525°

**LED TV in Administrative Block**



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**LED TV in Computer Science Lab**



## Energy Saving AC's

**Precise individual control and inverter technology minimize energy consumption to deliver optimum energy savings (Daikin VRV IDU High Wall).**



**Daikin VRV IDU High Wall at Research Seminar Hall**





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Lat 10.523567° Long 76.21935°

**Daikin VRV IDU High Wall at Research Wing**



**Daikin VRV IDU High Walls at Library**



**Daikin VRV IDU High Walls at Principals Room**



# ST. THOMAS COLLEGE (AUTONOMOUS)

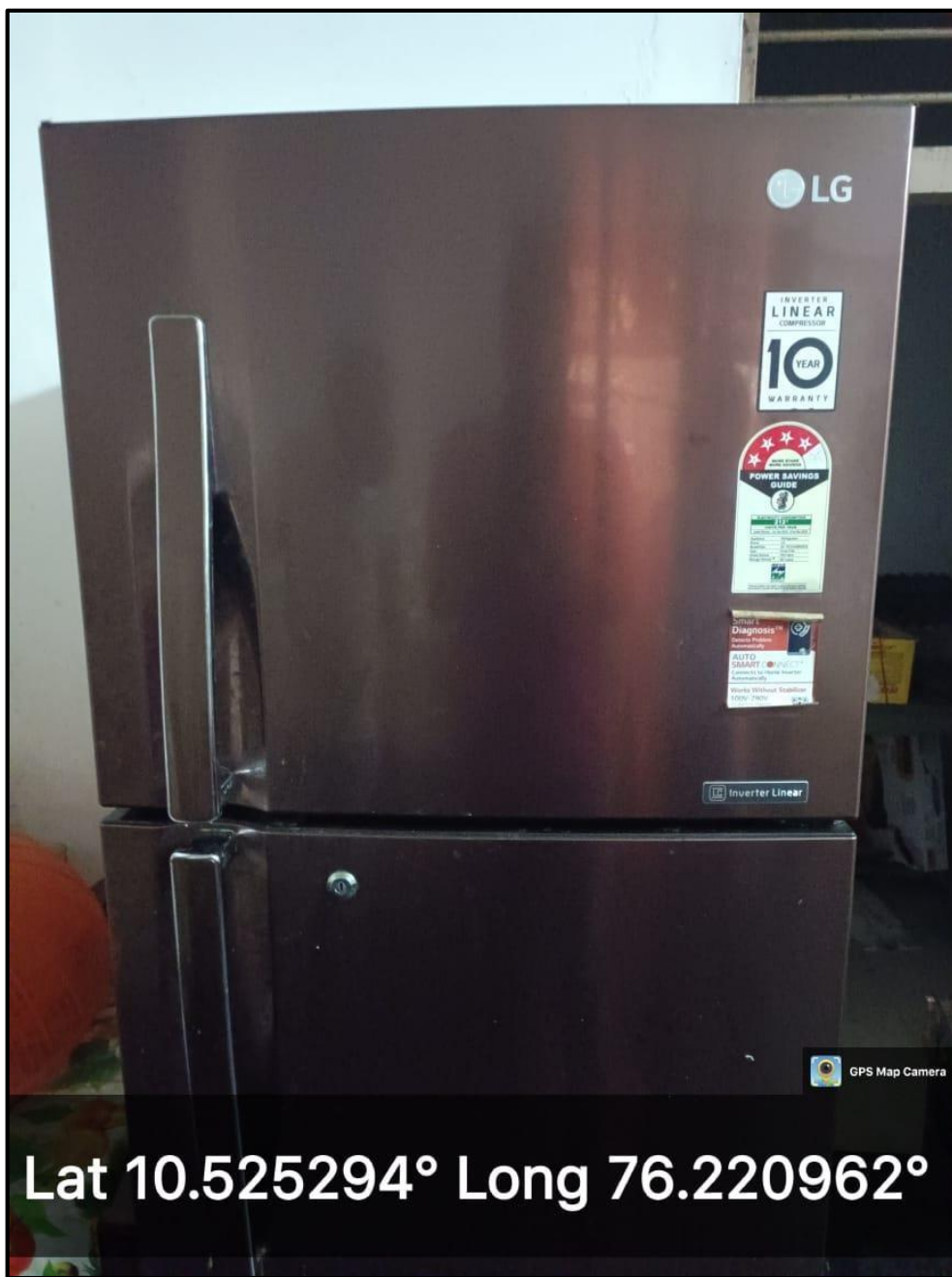
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Lab Consumables are kept in 4\* fridge by Chemistry Department



**Botany Department Chemicals are kept in 4\* Fridge**

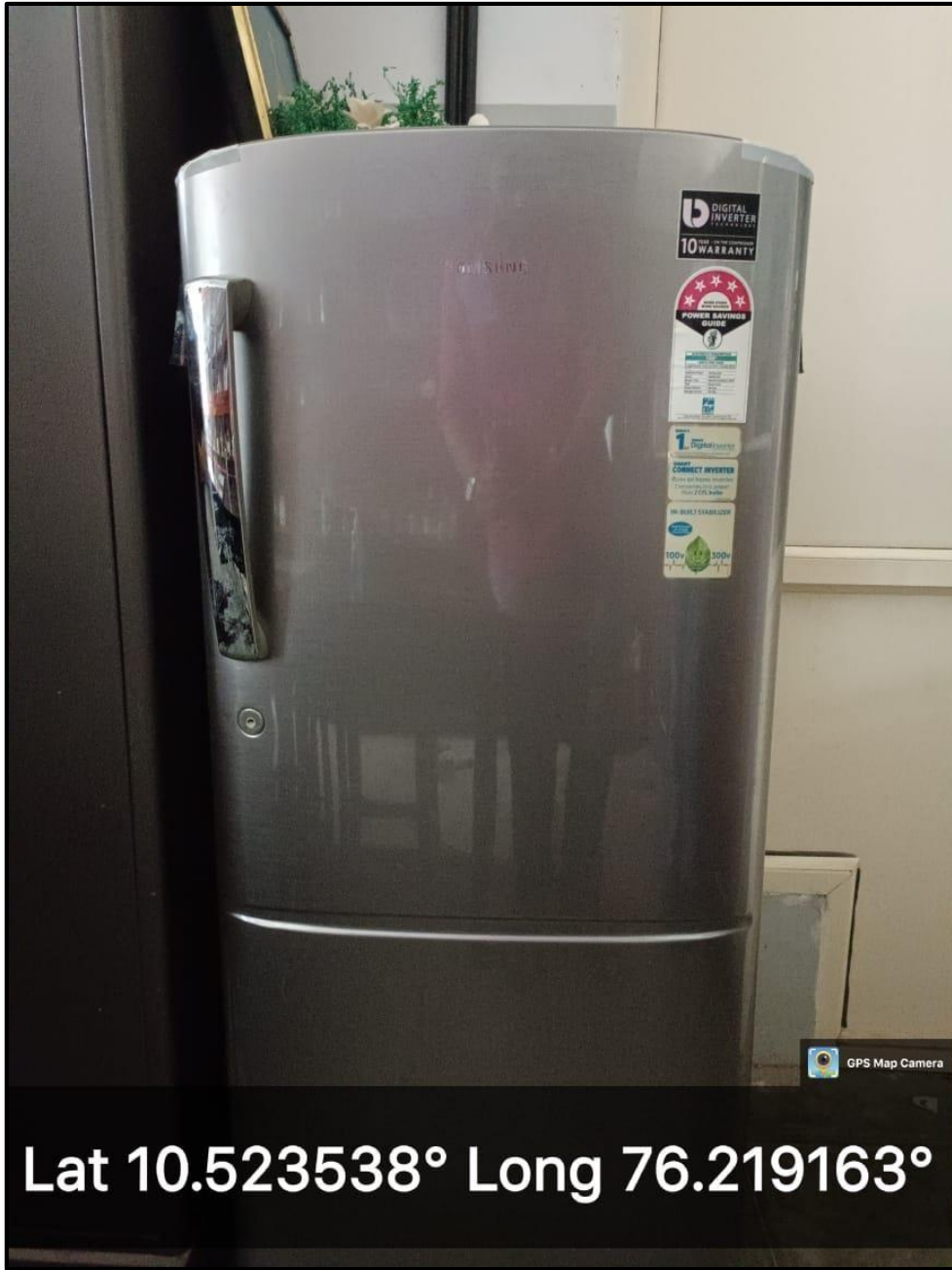


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**Botany Department Consumables & Plant materials  
are kept in 5\* Fridge**



**Principal  
St. Thomas College (Autonomous)  
Thrissur - 680 001**