SUSTAINABLE DEVELOPMENT GOALS



7. AFFORDABLE AND CLEAN ENERGY









Policy Energy-efficient renovation and building

Name of the Policy/Guidelines	Policy for Energy Efficiency
Short Description	This policy is implemented to ensure that all renovations and new builds at Chennai Institute of Technology adhere to energy efficiency standards. The policy aims to promote sustainable practices, reduce energy consumption, and minimize the environmental impact of construction and building operations.
Scope	This policy applies to all upgradation/ renovations and new construction projects undertaken by Chennai Institute of Technology.
Policy Status	Revised
Policy Created on	09-05-2022
Policy Revised on	03-06-2024
Approval Authority	Principal, Chennai Institute of Technology

Background and Principles

Chennai Institute of Technology is dedicated to implementing sustainable practices across all its operations, particularly in building construction and renovation projects. The institution prioritizes energy efficiency to reduce greenhouse gas emissions and lessen the environmental footprint of its infrastructure. This policy ensures that every new construction and renovation project at Chennai Institute of Technology adheres to established energy efficiency standards, fostering a greener and more sustainable campus environment.

1. Design and Planning:

- The majority of newly constructed buildings have open space in the middle and are shaped like squares or rectangles. The interiors of the buildings are brighter and more comfortable because to this arrangement, which lets natural sunshine into the structures.
- The open courtyards in the buildings' design make certain there is a lot of light in both the interior and exterior spaces. All of the hallways have good ventilation, and the roofs are equipped with holes to maximize natural light.









2. Lighting

- All newly built and remodeled spaces should have energy-efficient lighting solutions, like LEDs.
- To optimize energy savings, lighting controls such as daylight harvesting and occupancy sensors should be used.

3. HVAC System

- The design and installation of heating, ventilation, and air conditioning (HVAC) systems should be guided by established energy efficiency standards.
- HVAC systems should be regularly maintained and optimized to ensure maximum performance and energy savings.
- Energy recovery and heat exchange technologies should be incorporated wherever possible to minimize energy waste.

4. Renewable Energy Integration:

- During all renovation and new construction projects, opportunities to integrate renewable energy systems—such as solar panels—should be actively explored.
- Feasibility studies and site assessments should be carried out to evaluate the potential for on-campus renewable energy generation.

5. Monitoring and Evaluation:

- Energy performance monitoring systems should be installed in renovated and new buildings to track energy consumption and identify areas for improvement.
- Regular energy audits and assessments should be conducted by the internal energy audit team to evaluate the effectiveness of energy efficiency measures and identify opportunities for further optimization.

Chennal-69 CHENNOLO CHENNAL TO CH

Dr. A. RAMESH, M.E., Ph.D. PRINCIPAL

CHENNAI INSTITUTE OF TECHNOLOGY SARATHY NAGAR, NANDAMPAKKAM POSY KUNDRATHUR. CHENNAI - 600 069







Water efficient Appliances in the campus

Sensor-based urinals are used for automated flushing, and sensor-based coolers help in reducing energy consumption. The Front Load IFB IWE-108 Washing Machine operates with low energy usage, and commercial-grade dishwashers are installed to ensure energy-efficient performance.







Net Zero Energy building

The main building has achieved Net Zero Building status by balancing its annual energy consumption with renewable energy generation.



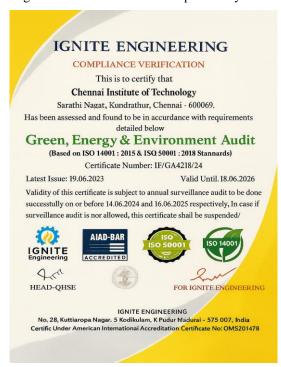






IGNITE ENGINEERING - Green, Energy & Environment Audit Certificate

Chennai Institute of Technology has been certified by IGNITE Engineering for compliance with ISO 14001:2015 and ISO 50001:2018 standards under the Green, Energy & Environment Audit. This certification validates the institute's commitment to sustainable energy management and environmental responsibility.





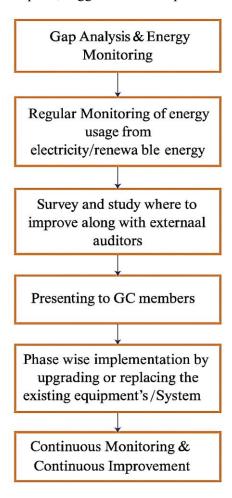






7.2.2 Upgrade buildings to higher energy efficiency

Chennai Institute of Technology has an internal energy auditing and monitoring team that conducts audits every three months (each building in rotation) to identify energy-saving opportunities and improve efficiency. Based on internal and external audit reports, suggestions are implemented phase-wise every six months.



Energy Efficient Appliances

Chennai Institute of Technology has upgraded its existing buildings to achieve higher energy efficiency by installing advanced energy-efficient appliances and systems.

Appliance	Total number energy Efficient appliances
LED Lamps and Solar Lights	1765
Ceiling fans with BLDC motors	1132
Energy Star-certified & environmentally friendly technology AC	162
Energy Star-certified computers	989
Energy Star-rated Washing Machine	24
Solar Water Heaters	67
Total	4011









LED Fixtures

The CFL lights in the existing academic buildings and the hostels are replaced with LED lamps which save around 60% of energy and some of the labs are upgraded with LED lights with sensors









Solar Street Lights

The CFL street lights have been replaced with solar-powered LED lamps.





AC Units

All split AC units are purchased based on Energy Star ratings, with most of them being 5-star rated for maximum energy efficiency. Older split and window AC units are being gradually replaced with centralized VRF AC systems to enhance energy efficiency. The VRF system helps reduce electricity consumption, optimizes space usage, and lowers overall operating costs.









Motion Sensor Lights

Motion sensor lights are installed in the Industrial Automation Laboratory, Innovation Learning Centre, IDEA Laboratory, and Computer Labs to promote energy savings.







Ceiling fans with BLDC motors

Old fans are being gradually replaced with ceiling fans equipped with BLDC motors, resulting in significant energy savings and improved efficiency.





Solar Water Heaters and Energy Star-rated Washing Machine

Older water heaters have been replaced with solar water heaters, and Energy Star-rated IFB IWE-108 washing machines are used to enhance energy efficiency.



Solar Water Heater



IFB IWE-108 washing machines









Green Campus Measures

- An effective rainwater harvesting system is implemented across the campus.
- RO (Reverse Osmosis) plants and Sewage Treatment Plants (STP) are in operation for water purification and reuse.
- Water-efficient appliances are installed to minimize wastage.
- Continuous monitoring of water usage is conducted.
- Leak detection systems are used to identify and fix leaks promptly.
- All buildings are designed for energy efficiency with sustainable construction principles.
- Rooftop solar panels and solar water heaters harness renewable energy.
- Building designs promote natural ventilation and maximum use of daylight, reducing reliance on artificial systems.
- Energy-efficient appliances are used throughout the campus.
- All energy systems are monitored and maintained for optimal performance.
- The institute is located in an area with clean and unpolluted air.
- Smoking is strictly prohibited across the campus.
- Each building is equipped with air quality monitoring devices.
- Architectural design encourages fresh air circulation and natural lighting.
- The rural setting provides a serene environment with views of nature.
- An efficient waste collection system is maintained.
- MoUs are signed with ITC WOW and Bisleri's "Bottles for Change" initiatives for recycling plastic and paper waste.
- All waste is safely disposed of through authorized vendors for proper recycling.
- A buy-back agreement is adopted when purchasing computers, machinery, and electronics to ensure responsible disposal at end-of-life.
- Electric vehicles are provided free of charge for on-campus transportation.
- Initiatives are in place to reduce the use of private vehicles and minimize parking needs.
- Buildings and surrounding areas are kept clean and well-maintained.

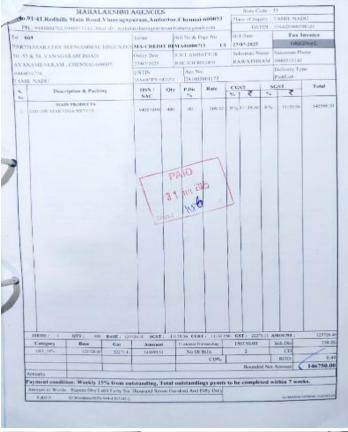


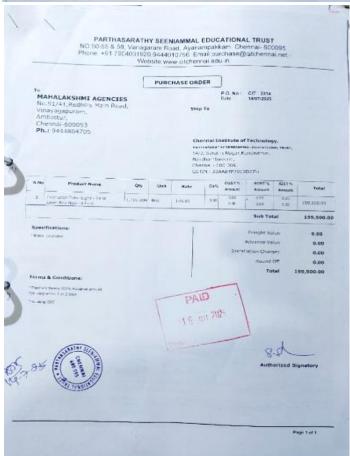






Energy Efficiency Appliances Purchase Order













7.2.3 Carbon reduction and emission reduction

The organization engages in various projects and activities to minimize its environmental impact and promote sustainability, thereby directly and indirectly reducing carbon emissions.

Solar panels are used on the campus to generate renewable energy that meets the institution's energy needs.

On average, the 300 kW solar energy systems installed on the roofs of residence halls and academic buildings generate 35,800 kWh of electricity per month and 1,140 kWh per day, reducing the campus's dependence on purchased electricity through renewable energy generation.





Solar Plant

Solar Water Heater

300 k	300 kWp Solar Panel Power Plant – Generation								
	from 2018 - 2024								
S. No	S. No Year Units Amount								
5. 110	1Cai	Generated	Saved						
1	2018	3,76,589	28,17,230						
2	2019	3,84,068	31,86,784						
3	2020	3,90,078	33,34,167						
4	2021	4,05,678	34,69,541						
5	2022	3,94,265	33,70,466						
6	2023	4,17,573	35,69,047						
7	2024	4,29,600	36,72,180						
	Total	27,97,851	234,19,415						

By generating 27,97,851 units (kWh) from the solar power plant, CIT has prevented approximately 2,294 tonnes of CO₂ emissions from entering the atmosphere.









Solar Water Heater

Men's Hostel						
Block	No of tanks	Capacity in litres				
Podhigai Hostel	14	3,500				
Bhavani Hostel	20	10,000				
Ladies Hostel						
Amaravathi Hostel	20	10,000				
Kaveri Hostel	13	3,250				
Total	67	26,750				

Electricity Usage per Year (in Kilowatt hour)

The campus uses a total of 973,477 kWh of energy, with 456,342 kWh coming from renewable sources. This means about 53.6% of the campus's energy use is from renewable energy.

Biogas Plant

The biogas plant converts food waste into renewable energy through anaerobic digestion. This process prevents methane emissions from decomposing waste and produces clean energy for use on campus. By replacing fossil fuels and reducing greenhouse gases, the biogas system helps in carbon and emission reduction.





Effective implementation of Rainwater harvesting system

The institute has a dual sewerage system that separates rainwater from wastewater. Harvested rainwater is stored and reused for toilet flushing, irrigation, and vehicle washing, reducing dependence on municipal water. This process conserves energy used for water supply and treatment, contributing to carbon and emission reduction.















Rainwater Harvesting (Pipes)

Recharge Pit

Ground Water Tank

Transportation Initiatives to reduce Carbon footprint

CIT supports national goals to reduce greenhouse gas emissions by restricting vehicle entry on campus and promoting walking and bicycling to cut fuel use and carbon emissions.



Chennai Institute of Technology reduces carbon emissions by using bicycles, passenger electric vehicles, and load-carrying electric vehicles, minimizing fossil fuel use and lowering greenhouse gas emissions.

















Green Landscaping with Trees and Plants

The Chennai Institute of Technology campus is home to 1,357 trees comprising 31 different varieties, along with 815 bamboo plants. These green assets play a vital role in enhancing the campus ecosystem by improving air quality, providing shade, and promoting biodiversity. The trees and bamboos act as natural carbon sinks, absorbing carbon dioxide from the atmosphere and releasing oxygen, thereby contributing significantly to carbon reduction and emission reduction efforts.

List of Trees

S. No	Name of the Tree	Numbers
1	Indian Beech Tree	82
2	Arjun Tree	17
3	Cluster Fig	5
4	Jamun Tree	16
5	Neem Tree	43
6	Oleander Tree	162
7	Christmas Tree	3
8	Coconut Tree	21
9	Mango Tree	3
10	Palmae Tree	11
11	Bamboos	815
12	Guava tree	3
13	Copper Pod	8
14	Peepal Tree	16
15	Rain Tree	13
16	Papaya	12

S. No	Name of the Tree	Numbers
17	Spanish Cherry Tree	3
18	Badam Tree	6
19	Weeping Fig	3
20	Jack Tree	3
21	Custard Apple Tree	3
22	Avocado Tree	6
23	Morinda Tree	3
24	River Tamarind	12
25	Tabebuia Pallida	3
26	Lagerstroemia Speciosa	9
27	Black Board Tree	3
28	Golden Shower Tree	21
29	Amla Tree	11
30	Ashoka Tree	23
31	Mahua Tree	18
	Total	1357









Tree plantation

Chennai Institute of Technology conducted a tree plantation drive and planted 55 tree saplings on the campus.





Beema Bamboo saplings

At Chennai Institute of Technology, 815 Beema Bamboo saplings have been planted across the campus as part of the institute's green and sustainability initiatives to support carbon reduction and emission control. Beema Bamboo is known for its exceptional ability to absorb carbon dioxide (CO₂) and release high levels of oxygen, making it an effective natural carbon sink. Each bamboo plant absorbs nearly 300 kilograms of CO₂ during its growth cycle, contributing significantly to the reduction of greenhouse gases in the atmosphere. This large-scale plantation not only enhances air quality but also supports soil conservation, groundwater recharge, and biodiversity enrichment.











Total Carbon Footprint

CO₂ (electricity)

- $-\frac{electricity\ usage\ per\ year\ (kWh)}{2}\times0.84$
- $= \frac{670,087 \, kWh}{10000} \times 0,84$
- = 562.87 metric tons

CO₂ (bus)

 $\frac{number\ of\ shuttle\ bus\ in\ your\ university\times total\ trips\ for\ shuttle\ bus\ service\ each\ day\times approximate\ travel\ distance\ of\ vehicle\ each\ day\ inside\ campus\ only\ (KM)\times 240}{\times}\times$

 $= \frac{0 \times 0 \times 0 \times 240}{100} \times 0.01$

= 0 metric tons

CO₂ (cars)

 $= \frac{\text{number of cars entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{\text{Mod Notice of the control of the$

$$= \frac{39 \times 2 \times 0.1 \times 240}{100} \times 0.02$$

= 0.37 metric tons

CO₂ (motorcycle)

= number of motorcycle entering your university × 2 × approximate travel distance of vehicle each day inside campus only (KM) ×240

$$= \frac{210 \times 2 \times 0.1 \times 240}{100} \times 0.01$$

= 1.008 metric tons

CO₂ (total)

= 562.87 + 0 + 0.37 + 1.008

= 564.24 metric tons

Carbon footprint = 564.24 metric tons

Carbon footprint per person: 0.11

Carbon Offset and Sequestration Initiatives

CIT has implemented extensive green infrastructure and ecological restoration projects that naturally offset and sequester carbon from the atmosphere.

Offset Category	Description	Estimated Annual Carbon Sequestration (tCO ₂ e)
Campus Trees (1,357 trees)	Sequestration through photosynthesis (average 22 kg CO ₂ /tree/year)	29.9
Forest Vegetation (18,213 m ²)	Natural forest area supporting soil carbon storage	12.0
Planted Vegetation (22,247 m ²)	Managed green cover improving carbon uptake	14.8
Biogas Utilization	Reduction in methane release through anaerobic digestion	10.5
Rainwater Recharge and Green Roofs	Enhanced soil carbon retention	4.2









Green Building Construction

- Building powered entirely by rooftop solar energy.
- Sewage Treatment Plant installed for 100% wastewater treatment.
- Treated and recycled water used for 100% landscaping.
- Rainwater harvesting system implemented to conserve water.
- Low-pressure taps installed to reduce water use.
- Waste collection and recycling programs implemented across campus.
- Energy-efficient appliances used to minimize power consumption.
- Smoking strictly prohibited within the campus.
- Indoor and fresh air quality maintained in good condition.
- Energy-efficient glass used to reduce heat gain.
- Low-VOC materials improve indoor air quality and reduce health risks.
- Tree plantations help reduce heat and enhance green cover.



IGNITE ENGINEERING - Green, Energy & Environment Audit Certificate

Chennai Institute of Technology has been certified by IGNITE Engineering for compliance with ISO 14001:2015 and ISO 50001:2018 standards under the Green, Energy & Environment Audit. This certification validates the institute's commitment to sustainable energy management and environmental responsibility.











7.2.4 Plan to reduce energy consumption

Chennai Institute of Technology (CIT) promotes sustainability through renewable energy use, smart building technologies, and energy-efficient practices, reducing its carbon footprint in line with UN Sustainable Development Goals.

Renewable Energy Initiatives

 CIT meets about 53.6% of its annual power needs through renewable sources, primarily a 300-kW rooftop solar system, along with wind and biomass energy, reducing dependence on grid electricity.

Energy-Efficient Infrastructure

- CIT has installed energy-efficient technologies across all campus buildings to minimize energy waste.
- Around 89.15% of appliances in academic buildings, laboratories, and hostels are energy-efficient.
- Smart building systems have been integrated into 87.83% of the total built-up area (62,523.18 m² of 71,182.16 m²) to optimize lighting, ventilation, and HVAC usage.
- LED lighting has replaced traditional fixtures throughout the campus.
- These measures have significantly reduced electricity consumption and lowered maintenance costs.

Green Campus Measures

- An effective rainwater harvesting system is implemented across the campus.
- RO (Reverse Osmosis) plants and Sewage Treatment Plants (STP) are in operation for water purification and reuse.
- Water-efficient appliances are installed to minimize wastage.
- Continuous monitoring of water usage is conducted.
- Leak detection systems are used to identify and fix leaks promptly.
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- Energy-efficient appliances are used throughout the campus.
- All energy systems are monitored and maintained for optimal performance.
- The institute is located in an area with clean and unpolluted air.
- Smoking is strictly prohibited across the campus.
- Each building is equipped with air quality monitoring devices.
- Architectural design encourages fresh air circulation and natural lighting.
- The rural setting provides a serene environment with views of nature.
- An efficient waste collection system is maintained.
- MoUs are signed with ITC WOW and Bisleri's "Bottles for Change" initiatives for recycling plastic and paper waste.
- All waste is safely disposed of through authorized vendors for proper recycling.
- A buy-back agreement is adopted when purchasing computers, machinery, and electronics to ensure responsible disposal at end-of-life.









- Electric vehicles are provided free of charge for on-campus transportation.
- Initiatives are in place to reduce the use of private vehicles and minimize parking needs.
- Buildings and surrounding areas are kept clean and well-maintained.

Evidences for Renewable Energy Sources

Chennai Institute of Technology has installed a 300-kW solar power system on the rooftops of its buildings, generating renewable energy to meet a significant portion of the campus's electricity needs.



Biogas Plant

A biogas plant has been installed on campus for the treatment of food waste and to generate renewable energy.













Energy-Efficient Infrastructure

• Chennai Institute of Technology has upgraded its existing buildings to achieve higher energy efficiency by installing advanced energy-efficient appliances and systems.

Appliance	Total number energy Efficient appliances
LED Lamps and Solar Lights	1765
Ceiling fans with BLDC motors	1132
Energy Star-certified & environmentally friendly technology AC	58
Energy Star-certified computers	989
Energy Star-rated Washing Machine	24
Solar Water Heaters	43
Total	4011









Energy Efficient Appliances













Commercial-grade dishwashers

Ceiling fans with BLDC motors

Natural Ventilation

The institution has implemented a Natural Ventilation Plan to minimize energy consumption and enhance indoor air quality. Each classroom is designed with 4 to 6 large windows to ensure adequate cross-ventilation and natural airflow. This design reduces dependency on mechanical cooling systems and artificial ventilation.







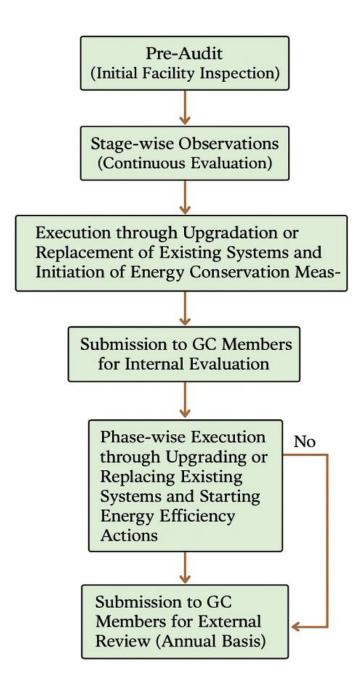






7.2.5 Energy wastage identification

The internal energy monitoring and auditing team of Chennai Institute of Technology reports on routine inspection of energy consumption and suggests guidance to the leadership team on conservation and energy efficiency enhancement. They audit every three months once (each building once in three months on rotation). External experts or consultancy energy auditing is done once every year. The audit flow is given below.









The EA report conducted by Unimech Solutions (India) Pvt. Ltd for 2024 is attached here

UNIMECH SYSTEMS (INDIA)

TUNIMECH SYSTEMS (INDIA)

ACKNOWLEDGEMENT

Thanks to the Chennai Institute of Technology's administration, Unimech Systems (India) Pvt. Ltd was able to conduct an energy audit on their campus. The data supplied or seen during the study, as well as the field observations, served as the foundation for the report. This is merely a walk-through assessment; if Chennai Institute of Technology consents, we may also do a thorough energy audit.

Unimech is appreciative to all the team who were helping to completing the field study safully. Finally, we would like to thank the management and all of the personnel for their

EA Report Of Chennai Institute Of Technology

24.05.2024

A

Evaluator / Auditing Officer

||Unimech Systems (India) Private Limited|| ||# 29,E- st Floor ,Price Arcade, Cathetral Road, Chennai-600087, Tamilnadu,India|| ||044-24793914||www.unimechevstem.in||Endlow.us.org

||Unimech Systems (India) Private Limited|| ||# 29,E- st Floor ,Price Arcade, Cathetral Road,Chennai-600087, Tamilnadu,India||

O UNIMECH SYSTEMS (INDIA)

Nature / Phase of Audit : A walk through auditing handled by Unimech Sysytems
 Pvt.Ltd

II. Details of Firm/Company/Educational Institute/Commercial use:

Name /	Organisation		Chennai Instit	ute of Technolog	ty	
Address			Sarathy Nagar, Kundrathur, Chennai-69			
Coordinator Incharge Audit on product			Dr.M.D.Vijayakumar Engineering college			
	Court OVI OEVAnnum		26.3			
Energy	Frantivo Sur	nmary Cher	nai Institute o	Technology		
		Annu	al Savings	Investment	Payback	
S.No	Energy Conservation	Kwh	Rs	Rs	Month	
	Measures		7,20,000	10,00,000	15	
1	Replace FTL lamps and Night Lamps with LED .	72000			20	
2	Replace conventional type fans with BLDC fans	84000	8,40,000	12,00,000	20	
		Summar	y of savings		1 26	
Total /	Annual kWh Savings by	1,56,000	15,60,000	22,00,000	35	
Annua	al Savings in (KLOE) by			26.3		

III. Equipment's list: Observed in Walk-through: Yes/No

ate sheets for calculation)

Transformer 2	ty(in w / TR / kVA)
Transformer 2	
Transformer 2	440
Transformer	320
DG 2 DG 2 Lights (FTL & CFL) 1400 Ceiling Fan/Wall Mount 1200	320
DG 2 Lights (FTL & CFL) 1400 Ceiling Fan/Wall Mount 1200	400
Ceiling Fan/Wall Mount 1200	400
Ceiling Fan/Wall Mount 1200	
	70
	1 - 2
Split AC 6	12
VRF AC 2	75
Chiller 01	NA

||Unimech Systems (India) Private Limited||
||# 29,E- st Floor, Price Arcade, Cathetral Road, Chennal-600087, Tamilnadu, India|
||044-24793914||www.unimechevstem.in||Follow.us.on

O UNIMECH SYSTEMS (INDIA)

IV. Energy Savings Comments

Total oil Savings Identified is 26.3 KLOE/Annum.

- 1. Some Blue star AC are BEE rated 4 star. Replace it.
 2. Review or replacing for chiller is
 3. LED lamps need to replaced for FTL
 4. Pumps performance needs to be reviewed by noting the time and head.
 5. Rooftop Solar grid performance to be maintained and improved.

The suggestions/actions to be incorporated at the possible earliest to save energy.

Save Energy! Stay Sustainable!









The institute has been assessed and certified for Green, Energy and Environment Audit by Ignite Engineering and the evidence attached below.

IGNITE ENGINEERING

COMPLIANCE VERIFICATION

This is to certify that

Chennai Institute of Technology

Sarathi Nagat, Kundrathur, Chennai - 600069.

Has been assessed and found to be in accurdance with requirements detailed below

Green, Energy & Environment Audit

(Based on ISO 14001: 2015 & ISO 50001: 2018 Stannards)

Certificate Number: IF/GA4218/24

Latest Issue: 19.06.2023

Valid Until. 18.06.2026

Validity of this certificate is subject to annual surveillance audit to be done successfully on or before 14.06.2024 and 16.06.2025 respectively, In case if surveillance audit is nor allowed, this certificate shail be suspended/















IGNITE ENGINEERING No, 28, Kuttiaropa Nagar. 5 Kodikulam, K Pudur Mad<mark>urai - 575 007, India</mark> Certific Under American International Accreditation Certificate No; OMS201478









Divestment from Carbon-Intensive Energy Industries Policy

Name of the Policy/Guidelines	Divestment from Carbon-Intensive Energy Industries Policy		
Short Description	This policy aims to guide Chennai Institute of Technology in divesting its investments from carbon intensive energy industries, particularly coal and oil. The policy aligns with the institution's commitment to environmental sustainability and reducing its carbon footprint.		
Scope	This policy applies to all investments made by Chennai Institute of Technology.		
Policy Created on	18-05-2022		
Policy Revised on	09-07-2024		
Approval Authority	Principal, Chennai Institute of Technology		

Background:

Chennai Institute of Technology acknowledges the pressing need to combat climate change and minimize greenhouse gas emissions. As a sustainability-driven institution, it recognizes the environmental consequences of carbon-intensive energy sectors like coal and oil. This policy demonstrates the institute's commitment to responsible investment practices and its dedication to promoting the transition toward cleaner and renewable energy sources.

Policy

Divestment from Carbon-Intensive Energy Industries: Chennai Institute of Technology remove its investments from carbon-intensive energy sectors. The institute will make a concerted effort to limit its exposure to businesses engaged in the production, distribution, or extraction of fossil fuels.

Responsible Investment Practices: The institute will adopt responsible investment practices that prioritize environmental sustainability and align with its commitment to reducing carbon emissions.









Engagement and Advocacy: Chennai Institute of Technology will actively engage with stakeholders, including investment managers, to promote the divestment from carbon-intensive energy industries

Monitoring and Reporting: The Institute will establish mechanisms to monitor and assess the progress of divestment efforts. Regular reports will be prepared to track the divestment process and communicate the institute commitment to stakeholders.

Review and Updates: Chennai Institute of Technology will periodically review this Divestment from Carbon-Intensive Energy Industries Policy to ensure its effectiveness and alignment with evolving sustainability goals. Updates will be made as necessary to address emerging challenges and opportunities.

Dr. A. RAMESH, M.E., Ph.D.

CHENNAI INSTITUTE OF TECHNOLOGY SARATHY NAGAR, NANDAMPAKKAM POST KUNDRATHUR. CHENNAI - 600 069











7.4.1 Local community outreach for energy efficiency

ATAL Sponsored FDP on Recent Trends in Power Engineering & E-Vehicle Technology

The Faculty Development Program (FDP) on "Recent Trends in Power Engineering & E-Vehicle Technology," held from 21–26 October 2024, brought together experts from academia, industry, and NGOs to discuss renewable energy, energy efficiency, and electric mobility. The program promoted knowledge sharing and collaboration, highlighting how advancements in power systems and e-vehicle technologies support national sustainability goals and the UN SDGs.









Solar Energy

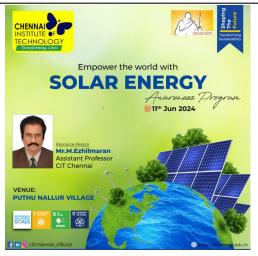
On 11th June 2024, Chennai Institute of Technology conducted a Solar Energy Awareness Program at Puthu Nallur Village, led by Mr. M. Ezhilmaran. The session educated 56 participants on the benefits of solar energy, government incentives, and its role in reducing fossil fuel dependence and carbon emissions, encouraging the community to adopt clean energy solutions.















Expert Talk on Energy Efficiency for Industry

On 26th June 202, Chennai Institute of Technology organized an "Expert Talk on Energy Efficiency for Industry" at Gokul Autotech, led by Dr. G. Thiagu. The session educated the local industrial community on energy-efficient practices, clean energy adoption, and their economic and environmental benefits, promoting awareness of energy efficiency and sustainability.









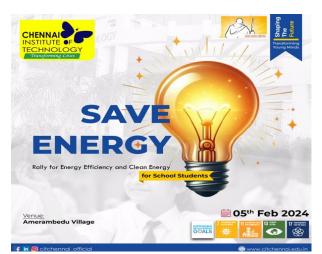






Save Energy

On 5th February 2024, Chennai Institute of Technology conducted a "Save Energy" awareness program at Govt. Girls Higher Secondary School to educate students on energy efficiency and sustainable living. The interactive session promoted responsible energy use and highlighted the importance of clean energy, supporting community awareness on energy conservation.

















Powering the Future

Chennai Institute of Technology organized an awareness rally titled "Powering the Future" on 16th May 2024 at Amerambedu Village to promote energy efficiency and clean energy. Students actively participated, spreading awareness on electricity conservation, carbon reduction, and renewable energy like solar and wind power.





India's Solar Man

Chennai Institute of Technology hosted an inspiring session with Prof. Chetan Singh Solanki, *India's Solar Man*, on renewable energy and sustainability. The event also launched the Energy Literacy Training Programme, promoting awareness and action toward a sustainable future.

















7.4.2 Pledge Towards 100% Renewable Energy

- Institute students took an Energy Saving Pledge to promote awareness of energy conservation.
- School students actively participated in the Energy Saving Pledge program.
- The pledge was displayed on the institute notice board and official website for wider visibility.
- Industrial staff from Gokul Autotech Pvt. Ltd. also took the Energy Saving Pledge as part of the initiative.
- Local community members participated by taking the Energy Saving Pledge, emphasizing their commitment to energy efficiency and clean energy practices.

Pledge

I pledge to use energy more mindfully and take necessary steps to reduce energy usage in my home and office.

I will devote my time in taking small steps like switching off the extra lights while I am in the room, turning off the appliances like Tv, computer monitors, ACs and cars/Bikes at the traffic signals.

The efficient utilisation will help me save money and consequently help in fighting climate change.

I pledge to take responsible actions in doing my part to improve the environment and help contributing to sustainable growth of the planet Earth.



School Students took an Energy Saving Pledge











Local Community People took an Energy & Water Saving Pledge



Industrial Staff from Gokul Autotech Pvt.Ltd taking Pledge – Energy Saving



Pledge displayed in Notice Board











Students taking pledge









7.4.3 Energy efficiency services for industry

ATAL Sponsored FDP on Recent Trends in Power Engineering & E-Vehicle Technology

The Faculty Development Program (FDP) on "Recent Trends in Power Engineering & E-Vehicle Technology," held from 21–26 October 2024, brought together experts from academia, industry, and NGOs to discuss renewable energy, energy efficiency, and electric mobility. The program promoted knowledge sharing and collaboration, directly supporting local industries through workshops focused on improving energy efficiency, adopting clean energy solutions, and aligning with national sustainability goals and the UN SDGs.









Expert Talk on Energy Efficiency for Industry

On 26th June 202, Chennai Institute of Technology organized an "Expert Talk on Energy Efficiency for Industry" at Gokul Autotech, led by Dr. G. Thiagu. The session educated the local industrial community on energy-efficient practices, clean energy adoption, and their economic and environmental benefits, promoting awareness of energy efficiency and sustainability.















Energy Efficiency Quality Audit Awareness Program

An Energy Efficiency Quality Audit Awareness Program was conducted at MK Auto Components India Limited. by the personnel of Chennai Institute of Technology. The two-day training session aimed to enhance understanding of energy efficiency practices and audit methodologies. Quality supervisors from the industry benefited greatly, gaining valuable insights into effective energy management and sustainable operational improvements.





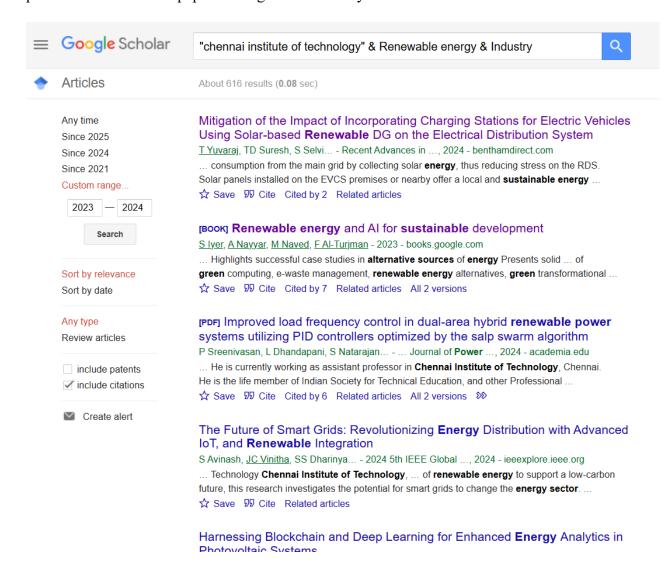






Chennai Institute of Technology conducts research related to renewable energy.

Chennai Institute of Technology actively conducts research related to renewable energy and published 616 research papers during the academic year 2023–2024.









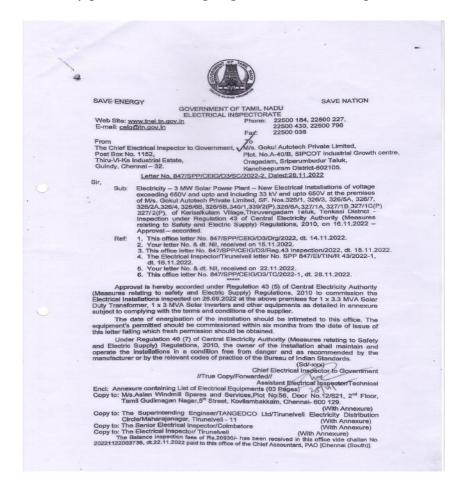


7.4.4 Inform and support governments in clean energy and energy-efficient technology policy development

The institute's support for renewable energy aligned remarkably with climate changes, reducing greenhouse gases and cleaner energy contributing towards environmental stewardship, innovation and education goals.

Regional Support

The Chairperson of the Institute also owns Gokul Autotech Pvt. Ltd. (GAT), a leading manufacturer of metal die-casting products. Through its strong collaboration with Chennai Institute of Technology, GAT engages in academic and industrial research to address real-world manufacturing challenges. GAT operates a 3MW solar power plant in Tenkasi District under **TANGEDCO**, supplying clean, renewable energy to the state grid and supporting **Tamil Nadu's** sustainable energy goals by reducing fossil fuel dependency and carbon emissions. This initiative promotes cleaner energy infrastructure and benefits the wider community. The Institute and GAT jointly monitor and evaluate energy divestiture initiatives, publishing regular power generation reports to ensure transparency and progress. Faculty teams on a rotational basis gain industrial exposure to review and enhance sustainability practices, ensuring alignment with evolving carbon reduction policies.

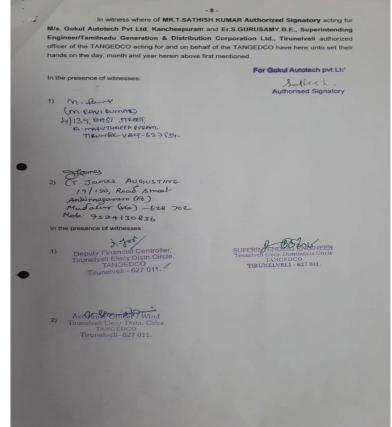




















Local Support

We collaborated with Amerambedu and Katrambakkam Panchayats to conduct clean energy and energy-efficient technology awareness events.

Solar Energy Awareness Program

On 11th June 2024, Chennai Institute of Technology conducted a Solar Energy Awareness Program at Puthu Nallur Village, led by Mr. M. Ezhilmaran. The session educated 56 participants on the benefits of solar energy, government incentives, and its role in reducing fossil fuel dependence and carbon emissions, encouraging the community to adopt clean energy solutions.





Promote energy efficiency and clean energy

Chennai Institute of Technology organized an awareness rally titled "Powering the Future" on 16th May 2024 at Amerambedu Village to promote energy efficiency and clean energy. Students actively participated, spreading awareness on electricity conservation, carbon reduction, and renewable energy like solar and wind power.













National Support

The National Workshop on Applications of Hybrid Energy Dryer, supported by the Department of Science & Technology (DST), Ministry of Science and Technology, Government of India, aimed to promote clean and energy-efficient technologies. The workshop on Applications of Hybrid Energy Dryer promoted innovation in clean energy and energy-efficient technologies, aligning with national policy development goals.





International Support

Chennai Institute of Technology signed an MoU with Sooorya, a Singapore-based E-Vehicle company, to collaborate on research and innovation for powering the future.











7.4.5 Assistance to low-carbon innovation

CITIL (Chennai Institute of Technology Incubation Lab) fosters start-ups through mentorship, advanced technology, and funding support for deep-tech innovation. It promotes entrepreneurship aligned with the Climate Action Plan, focusing on reducing greenhouse gas emissions. Through initiatives like Festa Solar Pvt. Ltd., CITIL provides assistance for start-ups that foster a low-carbon economy and sustainable technologies, empowering innovators toward a greener future. The following start-ups are being assisted by Chennai Institute of Technology.

CITIL: View

List of Start-ups

Sl.No	Company Name	Name	Designation	Mail.id	Domain	Place	Effective Date
1	Blue Code Applications Pvt Ltd	Mr.Sudharshan Kumar M	CEO	sudharshan141105@gmail.com	Smart City	Chennai	08.11.2023
2	Feston S.E.V. Private Limited	Mrs. Lathasri & Mrs.Sriram Sridevi	Directors	sales@festonsev.com	Solar Energy Tech	Thiruvallur	04.12.2024
3	Festa solar Pvt Ltd	Mrs. Lathasri	Director	lathasri@festasolar.com	Solar Energy Tech	Chennai	04.12.2024
4	Airosspace R & D Pvt Ltd	Mr.Vasantharaj Rajagopal	Director	airosspace21@gmail.com	Drone Tech	Chennai	16.12.2023
5	Karking Technologies Pvt Ltd	Mr.Karthik Mari Pitchai	Founder	ceo.official@karking.in	Parking Tech	Madurai	18.12.2023
6	eDigiM Research Pvt Ltd	Dr.R.Dhanagopal	Founder	dhanagopaldigim@gmail.com	Research Tech	Chennai	14.12.2023
7	Namuvi Technologies Pvt Ltd	Mr.Elumalai Malayalathanam	Founder	namuvitechnologies@gmail.com	E-Commerce	Chennai	18.12.2023
8	GoGoSoon Pvt Ltd	Mr.Saran.G	Founder	saran@gogosoon.com	IT Tech Solution	Chennai	28.12.2023
9	Biofocus Scientific Solutions Pvt Ltd	Dr.A.Noorjahan	Founder	biofokus@gmail.com	Live Science	Kumbakonam	26.12.2023



CHENNAI INSTITUTE OF TECHNOLOGY Sarathy Nagar, Kundrathur, Chennai - 600069, Tamilnadu, India.







10	Intrino Robotics & Technologies Pvt Ltd	Mr.N.Balaji Narayanasamy	Founder	contact@intrinotech.in	AR/VR	Chennai	08.05.2024
11	ARA Property Street Pvt Ltd	Mr.Deepak Kumar	Founder	deepak@propertystreet.co.in	Prop Tech	Chennai	14.09.2024
12	Mindplm Digital Service Pvt Ltd	Mr.George Mullar	Founder	george.muller@themindx.com	ERP	Thiruvallur	14.09.2024
13	Studai Edutech Pvt Ltd	Mr.Paul Jeevanesan A	Founder	ceo@studai.one	Deep Tech - AI	Chennai	14.09.2024
14	VK Tutelage Pvt Ltd	Mr.K.Venkadesan	Founder	vkapplication622@gmail.com	Edu Tech	Pudukkottai	16.09.2024
15	Bigsibucks Innovation Pvt Ltd	Mr.Balaji Arumugam	Founder	ceo@bigbucksinnovation.com	Property Tech	Chennai	08.10.2024
16	Alephgen Constuction and Pvt Ltd	Mr.Joshua Sam D Paul	Founder	alephgen@outlook.com, info@alefgen.com	Prop Tech	Tirunelveli	08.10.2024
17	AUTMAN Robotics Ltd	Mr.Pranav Suresh Kumar	Managing Director	pranav@aut-man.com	Robotics	UK	09.10.2024
18	INEM Technologies Pvt Ltd	Mr.Arul Anto Abhishek	Director	antoabheshek01@gmail.com	Deep Tech - AI	Vellore	24.10.2024
19	Einsten's Robotics Pvt Ltd	Mr.Rudran	Founder	reach@enstein.in	Deep Tech	Chennai	14.11.2024
20	Mechimed Technologies Pvt Ltd	Mr.Abhishake	Founder	mechimedtechnologies@gmail.com	Health care Tech	Kanchipuram	26.11.2024
21	Kaizenspark Tech Pvt Ltd	Mr.Gurubalan	Founder	kaizensparktech@gmail.com	Deep Tech	Cuddalore	14.11.2024
22	BEEBOX Studios Pvt Ltd	Mr.Prasad Sukumaranunni	Director	prasad.s@beeboxstudios.com	Deep Tech	Chennai	15.11.2024
23	Netaq Motors Private Limited	Mr.Neelakandan	Founder	neel@netaqmotors.com	Manfacturing Sector	Kanchipuram	25.11.2024
24	CyberXtron Technologies Pvt Limited	Mr.Santosh I	Founder	vigneshk@cyberxtron.com	Deep Tech - Cyb.Sec	Thiruvallur	25.11.2024
25	Live Box Technologies Private Limited	Mr.Raajamurugan R B	Founder	raaja@unmodel.ai	Deep Tech	Chennai	25.11.2024
26	Mayura Tyres Pvt Ltd	Mr.Anantha Krishnan Viswanath	Founder	viswanath.a@mayuratyres.com	Manufacturing sector	Madurai	04.12.2024
27	Uniport Travel Tech Pvt Ltd	Mr.Nandha Kumar Vijayan	Founder	support@uniport.in	Travel Tech	Vellore	27.11.2024









28	Wing Coders Technologies Pvt Ltd	Mr.Ganapathy Gowthami	Founder	krish@wingcoders.com	Deep Tech	Sriperumbudur	27.11.2024
29	Syncorb Fintech Pvt Ltd	Mr.Sadham Hussain	Founder	syncorbfintech@gmail.com	Expense Tracker	Chennai	03.12.2024
30	Shastav Tech Pvt Ltd	Mr.Ashvin Shastav Sasidharan	Director	info@mployjobs.com	Deep Tech	Chennai	02.12.2024