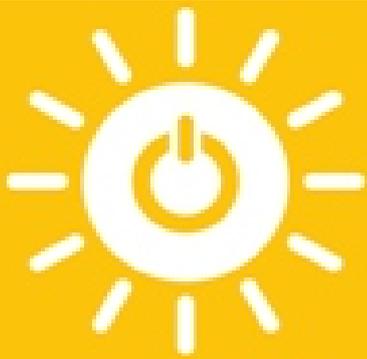




**SUSTAINABLE
DEVELOPMENT**

GOALS

KIIT Sustainable Development Report 2024



7 AFFORDABLE AND CLEAN ENERGY



KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY

KIIT Deemed to be University

(Declared U/S 3 of UGC Act, 1956), Bhubaneswar, Odisha, India

SDG 7: Affordable and Clean Energy

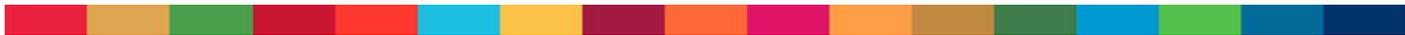
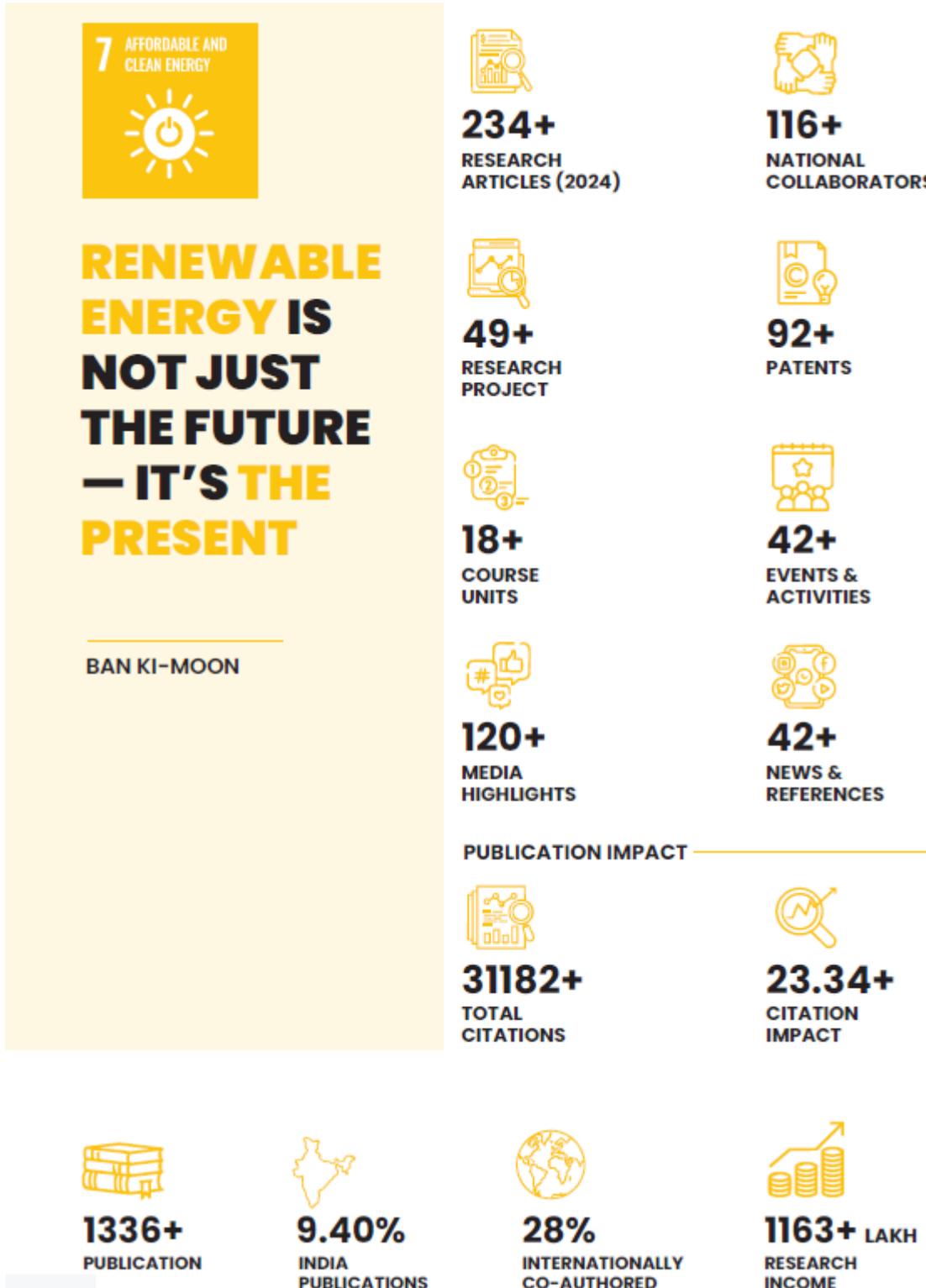
7. Introduction

KIIT University actively contributes to **SDG 7 – Affordable and Clean Energy** through research, efficient energy management, and community initiatives. The university conducts research on clean and renewable energy technologies, focusing on sustainable solutions such as solar power, energy storage systems, and energy-efficient practices to reduce reliance on fossil fuels. KIIT implements various measures on campus to promote affordable and clean energy, including the installation of solar panels, use of energy-efficient lighting, and smart energy management systems that optimize energy use while reducing carbon footprint. Energy use density is carefully monitored and improved by adopting building designs that maximize natural light and ventilation, and by promoting energy conservation practices among students and staff. In the community, KIIT organizes awareness programs on clean energy, supports rural electrification projects using renewable energy solutions, and collaborates with local stakeholders to promote energy sustainability. These efforts are driven by a long-term vision of environmental responsibility, ensuring energy solutions are not only affordable but also sustainable and accessible, contributing to a greener future.

The SDG 7 (Affordable and Clean Energy) report focuses on the progress, key initiatives, and impact achievements across the following targets:

TARGET 7-1	TARGET 7-2	TARGET 7-3	TARGET 7-A	TARGET 7-B
UNIVERSAL ACCESS TO MODERN ENERGY	INCREASE GLOBAL PERCENTAGE OF RENEWABLE ENERGY	DOUBLE THE IMPROVEMENT IN ENERGY EFFICIENCY	PROMOTE ACCESS TO RESEARCH, TECHNOLOGY AND INVESTMENTS IN CLEAN ENERGY	EXPAND AND UPGRADE ENERGY SERVICES FOR DEVELOPING COUNTRIES

7.1 KIIT's Commitment to SDG 7 (Affordable and Clean Energy): Research Publications, Patents Filed, Global Collaborations, Citations Received, Events Organized, and Community Activities – Key Figures



Remarkable Achievement on SDG 7

KIIT DU received “Star Campus Awards 2024” in “Energy Conservation and Renewable Energy”

KIIT Deemed to be University received the “Star Campus Award 2024” in the Energy Conservation and Renewable Energy category from Earth Day Network India, recognizing its strong commitment to sustainability and innovation in education. The award highlights KIIT’s impactful initiatives in promoting energy efficiency and renewable energy practices.



KIIT DU Receives the Best Performance Award (Educational Institute) at the Odisha State Energy Conservation Awards - 2024

KIIT Deemed to be University has been consistently recognized by the Government of Odisha for its excellence in energy efficiency. The University received the **Odisha State Energy Conservation Awards (OSECA) in 2022, 2023, and 2024**, including the “Top Performer” title in the Educational Institute category. These honours reflect KIIT’s strong commitment to energy conservation and its ongoing efforts to expand sustainable energy initiatives in the coming years.

Solar Energy Society of India Honours Achyuta Samanta

In November 2023, KIIT and KISS were recognized at the Solar World Congress in New Delhi for their significant efforts in promoting green initiatives and integrating solar energy into campus operations, highlighting their leadership in sustainable energy practices.



7.2 University Initiatives for Affordable Clean Energy

Sustainable Development Goal 7 (SDG7) focuses on guaranteeing that everyone has access to energy that is affordable, dependable, sustainable, and modern.

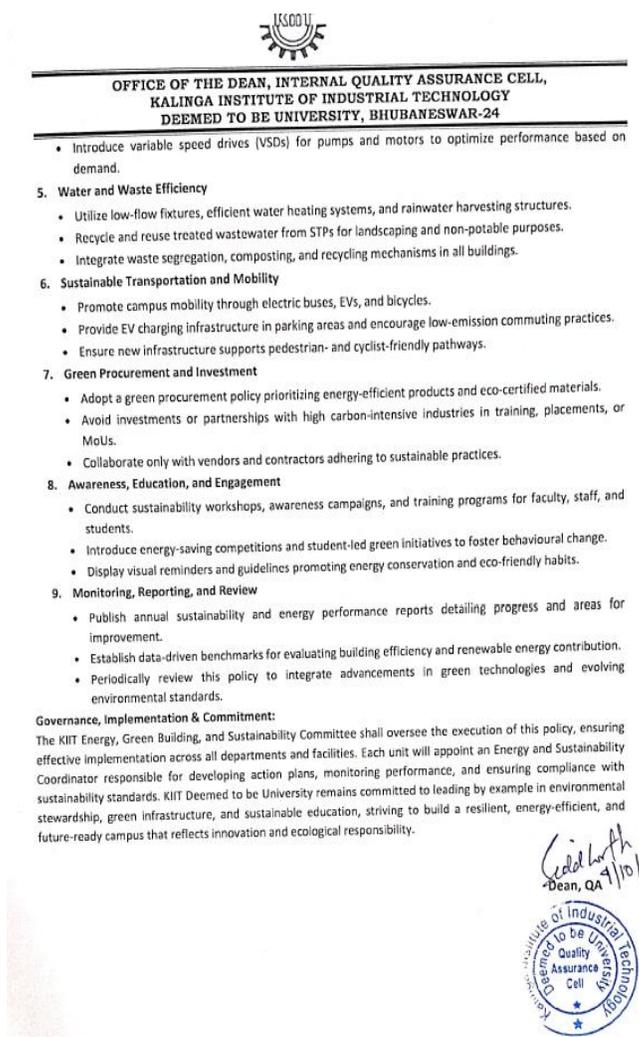
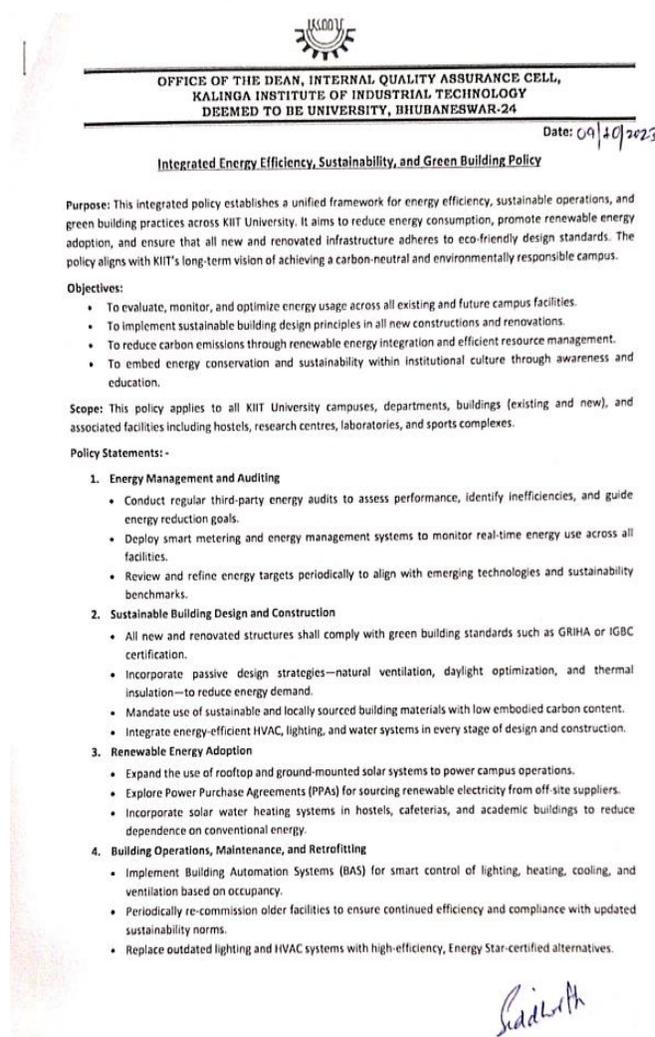
<https://sustainability.kiit.ac.in/>

- KIIT University is committed to adopting alternative energy sources, such as Solar Power, Renewable Energy, and Biogas Plants, whenever feasible. This approach is selected based on suitability for the local climate and aims to minimize environmental impact.
- KIIT University manages its energy resources efficiently to eliminate energy waste, utilizing methods like Solar Water Heaters, Cooking with Natural Energy Sources, and reducing its Carbon Footprint.
- KIIT University collaborates to build a community that prioritizes sustainable energy by regularly organizing Seminars, Workshops, and Awareness Programs, as well as integrating Courses on Energy and Climate importance into the curriculum.

7.2.1 Energy Efficient Renovation and Building Policy

KIIT University is dedicated to minimizing its environmental impact by making sustainable choices in its operations. This includes prioritizing the safety of building occupants, ensuring regular maintenance to extend facility longevity, conserving scarce resources, retrofitting to enhance water and energy efficiency, and continually educating the campus community on sustainable practices. These efforts are reflected in the university's policies and guidelines for energy-efficient buildings based on green building principles.

- Campus buildings are designed with passive cooling, natural ventilation, natural lighting, and integrated UV shielding, providing low-energy cooling alternatives to traditional air conditioning systems.



This integrated policy establishes a unified framework for energy efficiency, sustainable operations, and green building practices across KIIT University. It aims to reduce energy consumption, promote renewable energy adoption, and ensure that all new and renovated infrastructure adheres to eco-friendly design standards. The policy aligns with KIIT's long-term vision of achieving a carbon-neutral and environmentally responsible campus.

https://sustainability.kiit.ac.in/wp-content/uploads/2025/10/Energy-Efficiency-and-Green-Building-Policy_compressed.pdf

<https://sustainability.kiit.ac.in/climate-plan/>

7.2.2 Upgraded existing Buildings to Higher Energy Efficiency

Listed below are some Energy Efficiency Upgrade Plan practices taken up by us are:

I. Conservation of Energy

- Use of LED Bulbs/ Power Efficient equipment
- Solar Energy
- Biogas Plant
- Wheeling to the Grid

II. Water Conservation

- Rainwater Harvesting
- Tanks and Bunds
- Waste Water Recycling
- Water Bodies and Distribution System in the Campus

III. Solid Waste Management

- Liquid Waste Management
- Biomedical Waste Management
- E-waste Management
- Waste Recycling System
- Hazardous Chemicals and Radioactive Waste Management

A. Practices / Glimpses of Installed Environmental Stewardship

i. Conservation of Energy

Solar Power Plant

- ✧ 10 Nos. of Roof-Top Solar PV power Plants
- ✧ Total Electricity Generation=1000 kWp
- ✧ Total CO2 emission avoided= 2977 Tons



Solar Power Plant

Solar Water Heating System

- ✧ Numbers of Roof-Top Solar Heating - 40
- ✧ Total Solar Based Water Heating Systems Installed-91,500 Ltrs per day
- ✧ Total CO2 emission avoided= 832 Tons



Solar Water Heating System

ii. Solid Waste Management

- ✧ Biogas plant for organic waste



1000 Kg / day Capacity Biogas Plant

- ✧ Composting for long decomposable organic waste



500 Kg/Day Capacity Biogas Plants

iii. Liquid Waste Management

- ❖ 3 Numbers of Sewage Treatment Plant



STP at Campus 18 (Capacity – 90 KLD)



Sewage Treatment Plant at KIMS (2 million Liter per Day)

iv. Water Conservation

- ❖ Rain-water based ground water recharging pit all campus
- ❖ Sensor based pump controllers in 175 bore holes



Sensor Based Over Head Tank Water Controller



Automatic Water Controller with Pump Starter



Rainwater Recharge Pit

B. Minimizing Energy Waste

Annual internal energy audits are conducted to identify areas of energy waste.

S. No.	Audit Findings	Action Plan Completed
1	Lights and air conditioning might remain on after classes end.	Red blinking indicators have been installed outside rooms to clearly identify electricity usage. Additionally, duty staff and security personnel are assigned to patrol on a rotating schedule.
2	Non-essential lighting in areas that are not in use, such as restrooms, corridors, pantries, and vacant offices.	The Energy Saving Cell oversees efforts to promote energy conservation among the campus community. Advanced IoT-based monitor sensors are installed in areas with low foot traffic to manage lighting efficiently.
3	Insulation of academic section's AC condenser units are damaged and are exposed to the sunlight, water, dust, etc. There is a reduction in the performance of the machine.	The refrigerant pipes from the outdoor to indoor units have been insulated with new thick coated sheet.
4	Protection System	To install IoT base advance fault detection system on all DB's.
5	Energy Monitoring	To install IoT base remote energy monitoring system. This will help to track all load properly, optimize energy consumption.

C. Transportation & Commute

A sustainable commuting plan is essential for the University's environment. As the campus population grows each year, the University has invested in pedestrian-friendly infrastructure to minimize vehicle traffic on campus and ensure that all areas are easily accessible on foot.



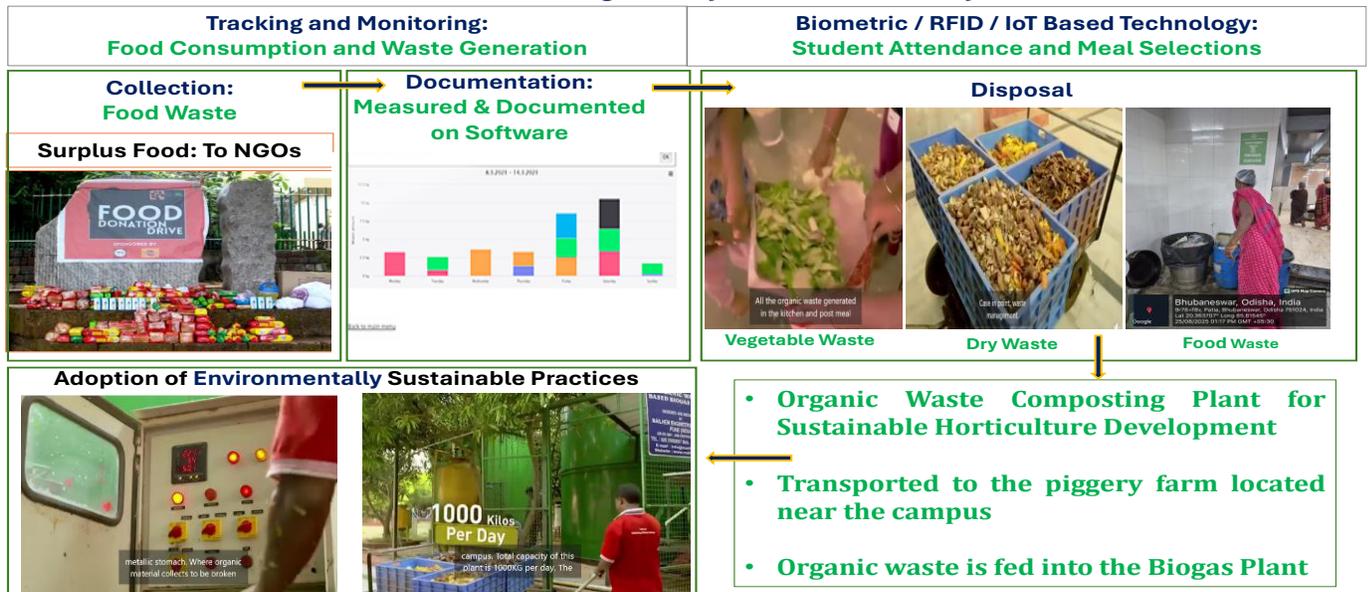
D. Waste Minimization

Waste separation bins have been strategically placed across the campus to facilitate the sorting of waste. Recyclable materials are collected at the 3Rs yard, which stands for Reduce, Reuse, and Recycle, before being sent to recycling vendors for processing. Additionally, food waste from the hostel's mess / cafeteria / office, including kitchen scraps, is collected daily to be composted, contributing to sustainable waste management practices. This approach not only promotes recycling but also helps in minimizing the amount of waste sent to landfills by repurposing organic waste into compost.

Different types of waste generated in the KIIT University and their disposal

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical and electronic parts	Direct selling
Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc	Direct selling
Solid wastes	Damaged furniture, paper waste, paper plates, food wastes	Reuse after maintenance energy conversion
Wastewater	Washing, urinals, bathrooms	Soak pits
Glass waste	Broken glass wares from the labs	Direct selling
Sanitary Napkin		Napkin Incinerators

Food Waste Management System at KIIT University





Liquid Waste Treatment Plants



Use of Sensors for Overhead Water Tanks



E. Educating Staff

Organise training programs to educate staff on energy-saving practices, encouraging them to power down equipment when it's not in use.

7.2.3 Process for Carbon Management and Reducing Carbon Dioxide Emissions

Since 2015, KIIT University have been regularly measuring and monitoring our CO₂ emissions. Over the years, we have increased our renewable power generation and decreased our dependency on the grid. We have also integrated energy efficient electrical systems, substituted the conventional vehicles by electric vehicles and certified zero-emission vehicles, conducted mega plantation drives in and around the campus and introduced various environmental awareness programs and courses on sustainability and climate action. This has resulted in reduction of carbon footprint of our university.

KIIT University's carbon emissions in alignment with the Greenhouse Gas (GHG) Protocol Corporate Standard, which is widely recognized and commonly used for calculating and reporting greenhouse gas emissions. The report presents an overview of the methodology used, emission sources identified, and key findings related to KIIT University's carbon footprint.

<https://sustainability.kiit.ac.in/wp-content/uploads/2024/04/KIIT-University-Climate-Action-Report-2023.pdf>





7.2.4 Energy Efficiency Plan in place to Reduce Energy Consumption

In 2023-24 Year:

- The University advanced its energy efficiency initiatives by further retrofitting LED lights to lower energy consumption and upgrading to IoT based sensor indicator lighting to minimize waste during low occupancy periods.
- Invest in renewable energy sources, such as Clean Energy, and SMART technologies, to reduce reliance on fossil fuels and decrease greenhouse gas.
- Adopt low-carbon operational practices in all campus buildings and infrastructure to achieve carbon neutrality by investing in energy conservation by promoting renewable energy sources and optimizing resource.

7.2.5 Reviews to Identify Areas with the Highest Energy Wastage

List of Some of the Repair and Maintenance Work Carried Out (Energy Audit)

Findings	Solution
1. Hot spots are noticed in most of the places in the AC panels and outdoor MCB boxes.	Service the cable terminations by proper alignment of cables, lugs and tightening of nut bolts. Also replace the outdoor units MCB's boxes with new one.
2. Insulation of all the AC condenser units are damaged and are exposed to the sunlight, water, dust, etc. There is a reduction in the performance of the machine.	All the refrigerant pipes from the outdoor to indoor units has to be insulated with new thick coated sheet.
3. Due to bad AMC services, there is a chocking of filters of the indoor units which than results in the formation of ice on the surface of indoor unit coils. This will end up with cooling of the machine itself but not the room. Also, the terminals are heating and deposited with carbon content which results in the drop of voltage. Because of poor maintenance and servicing there will be a reduction in the efficiency by 10-15 %.	A proper cleaning of the filters has been done to check the pressure of the refrigerant gas in the pipe's lines. Need to check working of thermostat of every machine during its AMC servicing. All the terminations serviced and cleaned.
4. Some of the capacitor banks are found faulty.	Faulty capacitor banks are replaced

<https://sustainability.kiit.ac.in/wp-content/uploads/2025/10/Energy-Audit-Report-2023-24 .pdf>

Evidence of Energy Reviews

Acknowledgement

M/S. ENER VISION places on record its sincere thanks to the KIIT DEEMED TO BE University Management giving us the opportunity for carrying out Green Audit (Environment, Electrical, Energy and Fire Safety Audit) of the KIIT University campuses. We also sincerely thank to Mr. Suvendu Panda (KIIT & KISS Nodal Officer) & Mr. S.N.Nayak (Chief Engineer Electrical KIIT Campus) & his maintenance team for their excellent co-ordination & help during the Third-Party Inspection of Green Audit on 8th August 2023.

Our engineers under the lead auditors Mr. Chinmoy Dutta – Chartered Electrical, Engineer & BEE Certified Energy Auditor, have carried out the power & facility audit.

Chinmoy Dutta

Place: Mumbai

Date: 14th January 2024



Chinmoy Dutta
(Chartered Elect Engineer & BEE Certified Energy Auditor EA-0985)
ENER VISION
(ISO 9001 Certified & BEE empanel ESCO)



Annual internal energy audits are conducted to pinpoint areas of energy waste, along with an action plan to address these issues, as part of the initiative to reduce energy wastage through the internal committee.

Duty staff and security personnel are assigned to patrol on a rotating schedule to overcome the issues like:

- Lights and air conditioning might remain on after classes end.
- Non-essential lighting in areas that are not in use, such as restrooms, corridors, pantries, and vacant offices.
- i. The Energy Saving Cell oversees efforts to promote energy conservation among the campus community. Advanced IoT-based motion activated sensors are installed in areas with low foot traffic to manage lighting efficiently.
- ii. The energy audit recommends avoiding the use of more energy consuming electrical appliances and to replace with more environment friendly and energy efficient appliances (for example five stars rated Air conditioner) in the college. The potential of renewable energy sources has to be explored.
- iii. All the campuses should be monitored by the IOT based energy monitoring system. All the electrical DB's/Distribution boxes should be converted to smart DB's.

As the university has a very large roof area for installing solar panels so that it can be effectively used for generating power. The college has started steps in installing the solar panels for office.



Solar Power & Solar Heater Generating Unit Maintenance

It is recommended to install the following solar powered appliances in the campus.

- Solar powered water heater and cooker in the college canteen
- Solar powered streetlights and LED display board





Solar Water Heating System



Fully mechanized steam kitchen

7.2.6 Divestment Policy from Carbon-Intensive Energy

The KIIT University are dedicated to leading by example and making a positive impact on the environment. Our Sustainability and Climate Action Policy provides a comprehensive framework for achieving our sustainability goals, with a particular focus on reaching carbon neutrality by 2050. By 2035, Our aims to divert 60% of its electricity consumption from non-renewable to renewable energy sources.

OFFICE OF THE DEAN, INTERNAL QUALITY ASSURANCE CELL,
KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY
DEEMED TO BE UNIVERSITY, BHUBANESWAR-24

Date: 17/10/2023

Carbon Reduction and Fossil Fuel Divestment Policy

Purpose: This policy outlines KIIT University's commitment to achieving a low-carbon and climate-resilient future by systematically reducing greenhouse gas emissions and divesting from carbon-intensive energy industries, particularly coal and oil. It integrates carbon management, sustainable investment, and renewable energy initiatives into the university's operational and academic framework to promote environmental responsibility and sustainable development.

Objectives:

- To reduce the university's total carbon footprint through efficient energy use, renewable energy adoption, and sustainable campus operations.
- To eliminate financial and operational dependence on fossil fuel-based energy systems.
- To promote investments in climate-positive, renewable, and energy-efficient technologies.
- To align university operations with global climate commitments.

Scope: This policy applies to all KIIT campuses. It covers infrastructure, transportation, energy procurement, waste management, and all investment or financial decision-making processes.

Policy Framework:-

A. Carbon Reduction Strategy

- Carbon Inventory and Baseline Assessment**
 - KIIT conducts comprehensive carbon inventories covering energy use, transportation, waste management, and water consumption.
 - Emissions are categorized into Scope 1 (direct), Scope 2 (indirect purchased energy), and Scope 3 (indirect activities such as commuting and waste).
 - A 2030 baseline is established for tracking progress toward long-term emission reduction goals.
- Emission Reduction Targets**
 - KIIT commits to a minimum 50% reduction in carbon emissions by 2030 and achieving net-zero emissions by 2050.
 - These targets align with international standards such as the Paris Agreement and Science-Based Targets initiative (SBTi).
- Energy Efficiency and Renewable Integration**
 - Progressive retrofitting of all campus buildings with energy-efficient lighting, insulation, and HVAC systems.
 - Installation of a 200 MWP rooftop solar power plant to supply clean energy.
 - Expansion of solar thermal systems and biogas plants to replace LPG and fossil fuel use.
- Sustainable Transportation**
 - Phasing out fossil fuel-based campus vehicles and promoting electric or hybrid alternatives.
 - Providing EV charging infrastructure and dedicated EV parking across campuses.
 - Encouraging electric carts for intra-campus mobility and partnering with local authorities to promote public transport for students and staff.
- Waste and Water Management**
 - Implementation of comprehensive waste segregation, recycling, and composting programs.
 - Conversion of hostel food waste into biogas and manure, reducing landfill dependence.
 - Utilization of low-flow water fixtures, rainwater harvesting, and sewage treatment plants (STPs) for water recycling.

Siddhartha

OFFICE OF THE DEAN, INTERNAL QUALITY ASSURANCE CELL,
KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY
DEEMED TO BE UNIVERSITY, BHUBANESWAR-24

- Awareness and Education**
 - Conducting workshops, campaigns, and sustainability courses to educate students, faculty, and staff on carbon neutrality.
 - Encouraging student-led sustainability initiatives through green clubs and campus-wide competitions.
- Carbon Sequestration Initiatives**
 - Expanding green cover through reforestation, vertical gardens, and green roofing to increase carbon capture.
 - Promoting sustainable landscaping and soil carbon management practices within campuses.
- Monitoring, Reporting, and Continuous Improvement**
 - Conducting annual third-party carbon and sustainability audits to verify emission reductions.
 - Publishing an annual sustainability report to track progress and ensure transparency.
 - Periodically revisiting goals to incorporate technological advancements and policy updates.

B. Fossil Fuel Divestment and Sustainable Investment Policy

- Divestment Commitments**
 - KIIT formally commits to divesting from all direct and indirect investments in coal, oil, and other carbon-intensive energy industries.
 - The university discourages the use of fossil fuels and oil-based transportation within its campuses.
- Sustainable Investment Strategy**
 - KIIT's Sustainable Investment Policy prioritizes funding for renewable energy projects, energy-efficient technologies, and climate-positive enterprises.
 - Investments are directed toward clean energy solutions including solar, biogas, and electric mobility infrastructure.
- Key Implementation Actions**
 - Replacement of LPG with biogas systems for hostel and campus cooking operations.
 - Adoption of concentrated solar steam cooking systems catering to over 500 students.
 - Transition to renewable electricity generation to reduce dependency on coal-based thermal power.
 - Expansion of solar and biogas infrastructure as primary campus energy sources.
- Governance and Accountability**
 - The KIIT Green Investment and Energy Transition Committee oversees implementation, monitoring, and evaluation of divestment and sustainability initiatives.
 - The committee ensures transparency in investment decisions and alignment with KIIT's carbon neutrality objectives.

Sustainability Commitment: KIIT University reaffirms its leadership in sustainable education and climate action. Through this integrated Carbon Reduction and Fossil Fuel Divestment Policy, KIIT commits to building a clean-energy future—one that divests from polluting industries, invests in renewable solutions, and exemplifies institutional responsibility toward a sustainable planet.

Siddhartha
Dean, QA
17/10/23

<https://sustainability.kiit.ac.in/wp-content/uploads/2025/10/Carbon-Reduction-and-Fossil-Fuel-Divestment-Policy-compressed-1.pdf>

This policy outlines KIIT University's commitment to achieving a low-carbon and climate-resilient future by systematically reducing greenhouse gas emissions and divesting from carbon-intensive energy industries, particularly coal and oil. It integrates carbon management, sustainable investment, and renewable energy initiatives into the university's operational and academic framework to promote environmental responsibility and sustainable development.

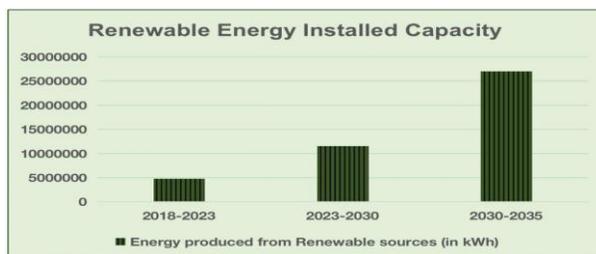
Through environmental stewardship, energy efficiency, sustainable transportation, education and awareness, collaboration and partnerships, monitoring, and reporting, we are committed to creating a sustainable future for our institution and beyond.

Divestment Focus Area from Carbon-Intensive Energy

- **Energy and Resource Efficiency:** Adopt low-carbon operational practices in all campus buildings and infrastructure to achieve carbon neutrality by investing in energy conservation by promoting renewable energy sources and optimizing resource.
- **Invest in renewable energy:** Invest in renewable energy sources, such as clean energy, and SMART technologies, to reduce reliance on fossil fuels and decrease greenhouse gas.
- **Promote Sustainable Transportation:** Promoting environmentally friendly transport options are crucial for lowering carbon emissions. Biking, walking, carpooling, and using public transportation are all forms of alternative mobility that KIIT-DU support and encourage. Also, the University has a few initiatives related to electric vehicles (EVs) and transportation, including **Solar Car, Electric Van, Electric Bike, Three-wheel Rechargeable Vehicle**. The University have lessened the reliance on single-occupancy automobiles and promoted a culture of sustainable mobility by providing infrastructure and incentives for these alternatives.

Outcomes

The University saved 10,273,000 kWh units of energy in the year 2023-24. Our goal is to make a transition to a sustainable energy mix and reduce dependence on fossil fuels. In the last 5 years, the total energy generation through our solar PV systems is 4782151 kWh. Our plan is to incorporate other types of renewable sources such as from Wind Power, Fuel Cells, etc. The University intends to procure more power from utilities sourcing renewable power than fossil fuels.



Evolution and projection of installed capacity (in kWh) of Renewable Energy at KIIT DU

7.4 Energy and the Community

7.4.1 Local Community Outreach Programs focused on Energy Efficiency

KIIT University is instrumental in conducting awareness programs (Seminar / Workshops, MoUs, Research Activities) for a local community to learn about energy efficiency and clean energy can be impactful and engaging awareness programs on sustainable practices, encouraging students and the broader community to adopt eco-friendly lifestyles. By fostering a culture of sustainability and involving the community in these endeavors, KIIT University has made significant strides in creating a greener and more sustainable future.

- <https://sustainability.kiit.ac.in/strategy-and-performance/>
- <https://sustainability.kiit.ac.in/sustainability-development/>
- <https://sustainability.kiit.ac.in/out-reach-project/>

Key Initiatives Promoting SDG 7 During 2023–24

KIIT and INSA Bhubaneswar Chapter Organize Symposium on ‘Translational Research for Society and Sustainability’

On June 14–15, 2024, KIIT Deemed to be University, in collaboration with the INSA Bhubaneswar Chapter, organized a symposium on “*Translational Research for Society and Sustainability.*” The event focused on connecting research with real-world impact across sectors such as healthcare, renewable energy, and agriculture, emphasizing academia–industry collaboration and KIIT’s commitment to advancing the Sustainable Development Goals.



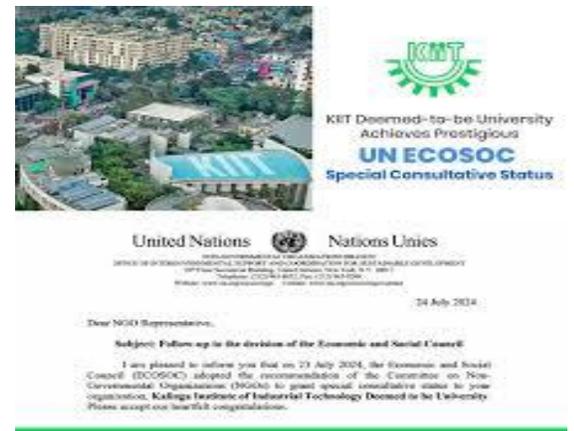
KSOFT Organizes National Conference on “Sustainable Clothing and Textile Recycling”

On March 15–16, 2024, the KIIT School of Fashion Technology (KSOFT) organized the 3rd National Conference on “Sustainable Clothing and Textile Recycling”, uniting experts from academia and industry to discuss environmental challenges in fashion. The event featured keynote sessions, paper presentations, and panel discussions on sustainable practices and textile recycling, reinforcing KSOFT’s dedication to advancing sustainability in the fashion sector.



KIIT DU Awarded Prestigious UN ECOSOC Special Consultative Status

On July 23, 2024, KIIT Deemed to be University (KIIT-DU) received Special Consultative Status from the UN ECOSOC for its contributions to the SDGs, marking it among 476 global applicants, only 19 institutions worldwide honored that year. KIIT also signed an MoU with UN Volunteers (UNV)—becoming the first private university in South Asia to engage students in UN-led sustainability projects—and partnered with the American Council of Young Political Leaders (ACYPL) to strengthen global leadership and sustainability initiatives.



PM Narendra Modi awarded ‘5G Use Case Lab’ to KIIT-DU

On October 28, 2023, KIIT-DU was awarded a ‘5G Use Case Lab’, advancing its mission to integrate sustainability with technological innovation. The lab promotes research in sectors such as education, agriculture, health, and energy, supporting smart city development, precision farming, and efficient resource management. By empowering students and researchers to create green technologies, the initiative strengthens India’s move toward a sustainable, self-reliant, and future-ready digital ecosystem.



4th International Conference on “Emerging Smart Materials in Applied Chemistry & Interdisciplinary Science for Sustainability”

From November 18–20, 2023, KIIT-DU, in collaboration with CSIR-IMMT and the Indian Photobiology Society, organized an International Conference on Material Science focused on sustainability and environmental innovation. The event brought together leading scientists from premier institutions and featured over 300 participants and 200 research abstracts, fostering collaboration and knowledge exchange on sustainable materials and green technologies.



KIIT DU’s NSS Unit Promotes Sustainability & Green Environment Awareness at Barimund Village

From December 20–26, 2023, the NSS unit of KSFH, KIIT-DU organized a seven-day Winter Special Camp at Barimund village, Bhubaneswar, focusing on sustainability and community welfare. Activities included plantation drives, awareness rallies, cleanliness campaigns, health checkups, and educational sessions on social and environmental issues. The camp promoted environmental responsibility, public health, and social awareness among participants and the local community.



KIIT Hosts IEEE IAS Lecture on Smart Energy Management for EVs

On July 26, 2024, the KIIT School of Electrical Engineering hosted an IEEE IAS Distinguished Lecture on intelligent power management in electric vehicles using reinforcement learning. The session highlighted advanced energy-efficient strategies for sustainable transportation and engaged faculty, researchers, and students in discussions on future research directions.



KINS International Conference on “Embedding Innovative Nursing Education for Sustainable Development”

On July 27, 2024, Kalinga Institute of Nursing Sciences (KINS), KIIT-DU, organized an International Conference on “Embedding Innovative Nursing Education for Sustainable Development” in a hybrid format. The event focused on integrating technology in nursing education and promoting sustainable healthcare practices, featuring global experts and attracting over 500 participants. Sessions on AI in nursing, green education, and sustainable healthcare highlighted KIIT-DU’s commitment to environmental sustainability, interdisciplinary collaboration, and advancing the United Nations’ SDGs.



Vision on Advanced Materials at NSRTC 2024

On August 9, 2024, KIIT-DU participated in NSRTC 2024, MIT-WPU, presenting on “Advanced Materials in Microwave Technology and Energy Storage”. The session highlighted energy harvesting innovations and their potential for societal impact, receiving wide appreciation from attendees.



Alumni Talk Highlights Solar Energy's Role in Sustainable Rural Livelihoods

On August 12, 2024, the KIIT School of Rural Management hosted a talk on Decentralized Renewable Energy (DRE), highlighting solar energy's role in sustainable livelihoods and energy access for marginalized communities, along with innovative initiatives promoting community well-being.



KIIT School of Electrical Engineering IEEE & Bhubaneswar Sub-Section Jointly Organize 'International Conference on Power Electronics & Energy'

From January 3–5, 2023, the KIIT School of Electrical Engineering, in collaboration with IEEE Bhubaneswar Subsection, organized the 2nd International Conference on Power Electronics and Energy (ICPEE-2023) in hybrid mode. The event showcased over 47 research papers on power electronics, renewable energy, and industry-academia collaboration, concluding with awards for outstanding contributions.



KSRM Organizes Sustainability Hackathon Boot Camp

On Apr 17, 2023, the KIIT School of Rural Management, in collaboration with EDI Ahmedabad and World Trade Centre Bhubaneswar, hosted a Sustainability Boot Camp to align students with the G-20 Sustainable Development Agenda. The event received 80 innovative proposals, with regional winners advancing to the national round in Ahmedabad for potential business implementation.



For More Activities:

<https://news.kiit.ac.in/archives/>

https://sustainability.kiit.ac.in/wp-content/uploads/2024/04/Environmental-Activities_2023.pdf

7.4.2 Promote Awareness & Education towards Renewable Energy beyond the University

❖ Social Contribution Towards a Better Living by Solar Home Light System for Households (LANTERNS):

Start of Solar Lantern distribution program throughout Odisha State to Non-electrified villages. Total 50,000 solar lanterns were distributed among villagers. Appreciated Impactful assessment study was made jointly by Power Finance Corporation and SECI (Solar Energy Corporation of India) of solar power station in distribution of 50k solar lanterns in different interior village of Odisha.

Outcomes of 2023-24

- 50,000+ households got benefits with an indirect benefit to 200,000+ people.
- Energy conservation leading to less use of non-renewable resources.
- Awareness about cost effective renewable resources.
- Multipurpose usage for everyday household activities including children's education.



Solar Lanterns Distributions Project



Jagatsinghpur, Odisha



Kalahandi & Raigada District, Odisha

For More Information:

<https://kiitincubator.in/csr/>

7.4.3 Services to Local Industry focussed on Energy Efficiency and Clean Energy

- KIIT-DU has developed and delivered the concept designs along with drawings and proof concepts for the modified shell for Heavy Weight Torpedo (HWT) on 18-May-2023, against the service order number 3420007791/SO dated 21-October-2022. KIIT-DU will be providing the warranty of 12 months for all the designs/drawings/3d models against the PO. Since the proof of concepts were delivered physically, service will be provided for maintaining the same. The assembly procedure was jointly developed by KIIT and BDL SEG team and a demonstration was given to the SEG team.

https://sustainability.kiit.ac.in/wp-content/uploads/2023/11/Evidence_16.3.1-DRD02.pdf



MoU between KP and TPCODL

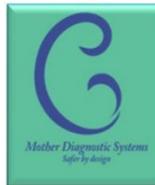
On July 19, 2023, **KIIT Polytechnic** and **Tata Power** signed an MoU to offer an industry-oriented course for Electrical Engineering students, aimed at enhancing skills in advanced energy technologies and distribution networks.



KIIT Signed an MOU with JS Renewable to enhance proficiency of B. Tech students in Renewable Energy

The KIIT School of Electrical Engineering launched a “Green Energy Academy” in collaboration with corporate partners to support MNRE’s Skill India initiative. As part of this, the Graduate Engineering (GET) program in Solar Energy was introduced to train B.Tech students in renewable energy technologies.

Portfolio – Services to Local Industry



- KIIT-TBI launched “**INVENT**”- a joint initiative of the Technology Development Board (TDB), Government of India, Department for International Development (DFID), Government of the United Kingdom and Villgro Foundation as the monitoring agency for the implementation of the program. INVENT aims to make a positive social impact by providing incubation support to technology-oriented start-ups whose offerings benefit the Bottom of Pyramid of the society.

Sector Focus:

Affordable Healthcare

Agriculture

Clean Energy

Education

Water and Sanitation

Waste to Wealth

Livelihood Promotion

Financial Inclusion

KIIT-TBI Offers:

Seed Funding

Dedicated Mentorship

Plug and Play Workspace

Support

Services

Capacity Building Programmes

<https://kiitincubator.in/invent/>



- Ambedkar Social Innovation Incubation Mission (ASiIM) - Funding Opportunity for Scheduled Caste Entrepreneurs, Supported by Ministry of Social Justice and Empowerment (MoSJ&E), Govt of India Initiative under Venture Capital Fund for SCs (VCF-SC)

The objective of this initiative is to provide focused support to young SC entrepreneurs who are engaged in working on innovative and technology-oriented business ideas either in educational campuses or Technology Business Incubators (TBIs), to help them setup successful commercial enterprises.

Provision for Equity Support

The identified innovative ideas from SC students in the TBIs would be provided equity assistance towards TBI accommodation cost, Hardware, Software, Fellowship, Travel and marketing, IP filing, Tool-room expenses, Co-workers etc.

Funding Heads

TBI Accommodation Cost	Hardware / Software	Fellowship	IP filing
Travel and Marketing	Tool Room Expenses	Coworkers (1) @ Rs 20,000/month	

<https://kiitincubator.in/asiim/>

7.4.4 Support Government in Clean Energy and Efficiency Policy Development

- **Bridging Theory and Practice: A Field Visit to State Pollution Control Board, Odisha**

On April 18, 2024, students from the 8th semester of KIIT School of Law visited the State Pollution Control Board, Odisha, for an interactive session on environmental pollution laws and hazardous waste management. The visit aimed to enhance experiential learning and strengthen students' understanding of environmental legal frameworks.



- **Sustainable Nitrogen Management in SAARC Countries**

The Kalinga Institute of Industrial Technology (KIIT) in Bhubaneswar, India has contributed to the National Nitrogen Policy Report for India through its work with the South Asian Nitrogen Hub (SANH). KIIT's work with SANH includes:

- ✓ Mapping existing policies and government programs
- ✓ Investigating the consequences of reducing nitrogen pollution
- ✓ Surveying farmers on their use of nitrogen
- ✓ Developing an app to help farmers decide on fertilizer and manure.

- KIIT Collaborated with Government Department/United Nations: -
 - ✓ South Asian Nitrogen Hub
 - ✓ International Nitrogen Management System (INMS) of United Nations
 - ✓ Ministry of Forest and Environment, Government of India
- **Expert Advice on “National Innovation and Startup Policy**
KIIT-TBI provides the expert advice on National Innovation and Startup Policy to the Ministry of Human Resources Development, Government of India to promote and support innovation, technology commercialization and startups in academic setup.
- The University is involved in expert opinion and advice through its involvement with a horde of national and international organizations under the umbrella of associations and councils. The University is a prominent member of the following international organizations:
<https://kiit.ac.in/about/global-footprint/>
- Prof. S. S. Ray, Director, School of Architecture and Planning, KIIT Deemed to be University has actively participated in the meeting of the State High Level Committee collaborated with the Central High Level Committee to facilitate refining the urban planning in cities and to escort the process of unlocking the potential of the cities as engines of economic growth to achieve the objective of enhancing the livability of the cities and environment sustainability.
- **Regional Startup Network**
Building Entrepreneurial Capacity in the Indo-Pacific Countries of Bangladesh, Bhutan, India, and Nepal: A unique interconnected space for collaboration between Entrepreneurs, Investors, Researchers, Policy Makers, Private, Public & Government Organizations.
<https://rsn.kiitincubator.in/>

7.4.5 Assistance for Startups Supporting a Low-Carbon Economy or Technology

- Dr. U. P. Singh and Dr. Arindam Basak, Faculty of School of Electronics Engineering received assistance fund from the University and Department of Science & Technology (DST), Government of India to accelerate research work in start-up potential as they commercialize the innovative idea “Process Development of Thin Film Solar Cells from Abundant and Non-toxic Materials”. Photovoltaic (PV) technologies based on inorganic thin film absorber materials may enable cost-effective solar energy production at large scales. Thin film technologies reduce the amount of material required in creating the active material of photovoltaic devices, such as solar cells. The materials which are used in this project are earth abundant and non-toxic. Also, the methodology adopted is user friendly. Hence no environmental impact and risk is associated with this project. A proper structural, electrical, and optical study of this material can lead us to fabricate a more efficient, cost effective and eco-friendly solar cell.

For More Information:

<https://electronics.kiit.ac.in/research/research-projects/>

<https://electronics.kiit.ac.in/wp-content/uploads/2020/07/Research-Facility-Thin-Film-Lab.pdf>

- KIIT-TBI’s commitment to transparency, accountability, performance and social responsibility is outlined and reflected by the impact of KIIT-TBI’s programs and achievements, focussing on **Corporate Social Responsibilities and Women Technology Parks**. The various activities conducted by KIIT-TBI with a specific focus on our **operations to establish and grow sustainable**

WTPs. In each of these areas we have been fortunate to have been associated with **amazing start-ups, innovators, entrepreneurs and ecosystem partners.**

<https://kiitincubator.in/csr/>

5 SUCCESSFUL PROJECTS



WTP Chikiti

Chikiti Block of Ganjam District, Odisha



WTP Jagatsignhpur

Jagatsignhpur, Odisha



WTP Koida

Koida Block of Sundergarh, Odisha



WTP Kandhamal

Raikia Block of Kandhamal, Odisha



WTP Jharsuguda

Jharsuguda, Odisha



Solar Home Light System For Households

Kalahandi & Raigada District, Odisha



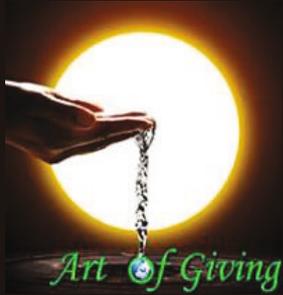
Food & Water Sample Testing

Jharsuguda, Odisha

Remarkable Installed Technology Driven Start-up Promote Low Carbon Innovation

- The steam-based cooking system for mass cooking are installed.
- 10,000 LPD solar water heating system for cooking purpose are installed.
- CO₂ Reduction by steam cooking, Solar water heating, Biogas use and Solar Power use – 1486 tons / year.





ART OF GIVING

Giving education to the deprived is like
giving sight to the blind -Achyuta Samanta

PHILOSOPHY OF LIFE

'Art of Giving' is a not-for-profit initiative for spreading, supporting and promoting the practice of giving around the world. It is based on the philosophy of life of **Prof. Achyuta Samanta**, who has struggled through an experience of poverty, hunger, humiliation in receiving and pleasure in giving from his childhood. **He gives the credit of all his success to 'Art of Giving' and has been working relentlessly to achieve zero poverty, zero hunger and zero illiteracy since 1987.**



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