



Karunya INSTITUTE OF TECHNOLOGY AND SCIENCES

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

MoE, UGC & AICTE Approved; NAAC Accredited A++

Karunya Nagar, Coimbatore - 641 114, Tamil Nadu, India.

Policy on Mitigating the Impact on Climate and the Environment

1. Introduction

The atmosphere, ocean, cryosphere and biosphere have undergone rapid changes due to human-caused climate change. It is affecting hydrological extremes in every region across the globe and lead to adverse impacts and losses and damages to nature and people. To offset the climatic conditions and to have sustainable environment, KITS is committed to carry out all its operations by considering climate and the environment in line with the national and international policies. India in its Nationally Determined Contributions (NDC) has pledged to reduce the emission intensity of its Gross Domestic Product (GDP) by 45% by 2030. This is a measure of the amount of greenhouse gas emitted per unit of economic activity.

KITS shall carry out a number of activities as mentioned in this policy document to reduce its carbon footprints and thus contributing to global climate mitigation and support to the Nation's commitment. Carbon offset measures shall be taken to mitigate part of its carbon footprint. The efforts will continue until it becomes effectively carbon neutral.

2. Green Energy

- i. KITS shall use solar heating systems by making solar water heaters mandatory in buildings
- ii. KITS shall use solar as an off-grid solution to provide electricity and reduce the consumption from fossil-fuel based power plants
- iii. Use of energy efficient equipment, appliances including lighting
- iv. Utilizing natural lighting in all the buildings
- v. Using renewable energy sources to meet the energy requirement

- ~~vi.~~ Transforming its buildings into more green and smart ones
- vii. Awareness campaign on energy conservation shall be conducted for all the stakeholders of the institution
- viii. Usage of IC engine vehicles inside the campus shall be minimal
- ix. Avoiding fossil fuel-based vehicles and introduction of EVs and HEVs.
- x. Solar PV charging infrastructure to be installed.
- xi. Flow battery-based energy storage units to be adopted as the backup energy source
- xii. Annual energy auditing to be conducted

3. Sustainable Habitat

- i. Adopting holistic approach to solid and liquid waste management to ensure their full potential for energy generation, and recycling and reuse.
- ii. Planning and laying out eco-friendly and energy free campus with green pedestrian paths and bicycle trails
- iii. Envisions a net-zero waste and emission campus by 2060
- iv. Sustaining and enhancing the floral and faunal biodiversity of the campus
- v. Utilizing technologies for producing energy from waste

4. Water Conservation

- i. Automatic control system to be installed in all the water distribution networks to avoid overflow and dry run
- ii. Regular maintenance to be carried out to avoid water leakage which will reduce the need for pumping of water
- iii. Waste water treatment methods to be adopted
- iv. Installation of rain water harvesting systems
- v. Promote water purification and desalination techniques
- vi. Provide guidelines for different water users on efficient water usage
- vii. Awareness campaign on water conservation shall be conducted for all the stakeholders of the institution

5. Recycling of Plastic and Paper

- i. Plastic usage inside the institution shall be restricted.
- ii. Plastic and solid wastes in the campus to be converted to energy, utilizing the existing “Rotary Kiln Gasification Plant”
- iii. Paperless administration is envisaged and the paper waste, if any, has to be recycled using eco-friendly paper recycling unit in the campus.

6. E-Waste Management

- i. The Institution’s stores officer has to collect all the E-Wastes at the end of every month from various academic divisions, research laboratories, workshops, hostel buildings etc. and shall transport to the authorized dismantler or recycler.
- ii. The Institution will ensure that no damage is caused to the environment on account of transporting such items.
- iii. A detailed inventory to be maintained on E-Waste Disposal
- iv. Following components/equipment/Appliances are considered as E-Waste after their life period
 - a. All forms of Computers (Desktops, Laptops, Notebook Computers, Notepad Computers)
 - b. Computer Peripherals (Keyboards, Mouse, Display Units, Printers, Copiers and Scanners)
 - c. Telephones, Cordless telephones, Cellular telephones
 - d. Television sets [including sets based on Liquid Crystal Display (LCD) and Light Emitting Diode (LED) technology]
 - e. Refrigerators, Washing Machines, Air-conditioners (excluding centralized air conditioning plants)
 - f. Fluorescent lamps, lamps which contain mercury, and other Consumer electrical and electronic items.

7. Sustainable Agriculture

The School of Agricultural Sciences of KITS will be involved in the following activities with the support of other Schools.

- i. Development of strategies to evolve low input agriculture by creating crops with enhanced water and nitrogen use efficiency.
- ii. Use of micro irrigation systems
- iii. Promotion of agricultural techniques like precision farming, organic farming and rain water conservation
- iv. Production of large scale bio-fertilizer in the campus to substitute chemical fertilizers

8. Strategic knowledge for climate change

- i. Curriculum on low carbon operational practices
- ii. More research shall be initiated related to sustainable environment and climate change to create technologies that mitigate climate change
- iii. PG and UG students shall be encouraged to design and device methods to reduce carbon emissions.
- iv. More research on water neutral and water positive technologies

9. Conclusion

KITS has installed solar PV systems, solar water heaters and waste to energy conversion plants. Energy efficiency criteria have been followed for lighting and other appliances. Green audit is carried out regularly. With the support of this policy, efforts will be taken to reduce greenhouse gas emission and support the environment to improve the climate. The Institution is committed to zero emission from the Campus to be achieved by 2060.