

2023-24

## IIT-H SUSTAINABILITY

## Sustainable Practices Policy

- · Zero Waste: IITH has set up a policy for zero waste in the campus by reducing, reusing and recycling processes. We have established a plant to treat the wastewater and reuse it for cooling plants and as flush water. The solid waste collection (packing material, paper, cardboards, scrap metal, and hazardous e-waste, etc.) and recycling process has also been established. The wet waste is used feedstock for a bio digester which supplies cooking fuel for the student dining hall. The vegetable peelings and food residue, which are generated in the dining hall, canteen, and residential areas will be degraded in the digester to produce biogas which will be then sent back to the dining hall kitchen. This will reduce our fossil fuel consumption. The biosolid that is generated as a part of the digestion process will be converted to compost at our Resource Recovery Park. In addition to these, the usage of single plastics is prohibited on IITH campus. We also strongly encourage the recyclable and eco-friendly materials for carry bags.
- Practices including energy harvesting using solar energy and saving electrical energy using sensor systems at several locations of the campus. In this regard, solar panels have been established that generate 1 MW power of electricity. Moreover, student hostels on campus are cooled by passive radiant cooling techniques which also effectively reduce the campus' energy demands. Radiant cooling is implemented in 6.0 lakh sft for providing thermal comfort at a reduced operational cost. To further expand our clean energy generation, we have applied for state government approval to enhance the solar panels capacity to 3 MW. We would like to complete this expansion process by 2026.

- Sustainable Transportation: In 2021, IITH introduced Electric Vehicle transportation options on its campus, with shuttle services every 15 minutes that operate on the 3 km stretch between the institute's main gate and its academic buildings. Furthermore, students in the campus use bicycles for commuting between hostels and academic buildings. Rent-free short term bicycle rentals are also available on the IITH campus. IITH encourages its faculty and staff to use bicycles or EVs for travelling on its campus.
- Good Health and Well-being: IITH has a 24x7 health centre located on the campus. The health centre is headed by the MO-In-Charge with a team of full time/part time Medical Officers, Physiotherapist, Visiting Specialists and Nursing staff. Medical needs of the Campus population consisting of Students, Faculty/Staff members and their families are met by the Institute health centre. Various Medical Services being rendered at the IITH health centre.

(a) Emergency services- Medical staff / Ambulance available- 24x7.

Universal precautions like usage of masks, gloves, sterilization of instruments, hygienic laundry services, Bio waste disposal as per govt norms are followed strictly.

- (b) OPD
- (c) Treatment facilities- Student/faculty/staff and their dependents can avail Day care treatment, ECG, Physiotherapy, minor surgical procedure like dressing of lacerated wound, suturing of minor lacerations.

(d)In house Lab services are catered by Continental hospital(P) Ltd., as per the MoU signed with the Institute.

(e) Pharmacy- IITH health centre has tied up with Apollo for its pharmacy needs within the campus. Apollo provides 24\*7 support

(f) Specialty Medical Centre -Consultant specialists from Continental Hospitals visit the specialty clinic.

(g) other activities- Immunisation/vaccination (as per universal immunisation program) awareness are conducted periodically with help of in-house Paediatrician. Health education about various communicable diseases, vector borne diseases, Animal bites like Tuberculosis, Dengue, Malaria, snake bites in the form of posters, lectures is imparted regularly. Health centre staff undergo periodic medical training to be upto date in the recent medical advances. IITH has a psychological counselling team for supporting the community during anxiety, depression. They see that students participate actively in group activities/celebrate festivals together. During the pandemic, IITH established isolation wards, conducted immunisation camps for the benefit of the community.

Health centre team encourages the IITH community for lifestyle modifications like physical exercise, healthy diet, sports activities to counter the increased risk of Non communicable diseases like Diabetes, Hypertension, substance abuse. Health centre team encourages IITH community for lifestyle modifications like physical exercise, healthy diet, sports activities to counter the increased risk of Non communicable diseases like Diabetes, Hypertension, substance abuse.

• Gender Equality and Reduced Inequalities:

IITH is committing itself to the right to equality, safety, and dignity of persons of all gender identities and sexual orientations. Honouring our national laws, judicial rulings, and India's international covenants, ours will be LGBTQIA+ safe campus. With the active support of our administration, we are delighted to declare that IITH is working towards the full accomplishment of this goal, factoring in limitations of space and budget, while constantly striving to ensure equal rights for all.

This includes gradual provisions for gender-neutral spaces, increased sensitization about the rights and challenges of the LGBTQIA+ community, and an active support group consisting of identifying members and allies. The aim is to remove the silence around challenges faced by the community on grounds of gender and sexuality. The studentrun campus group called Qurve receives official recognition as an alliance that will work constructively towards supporting LGBTQIA+ student needs for safety and well-being. Change comes in small steps, and we are happy to say that this is a big one. We would like to announce that as an institution, IITH will not allow any form of discrimination or harassment towards any member of the community on grounds of gender and sexuality. The biggest responsibility is on all of us now to ensure that all campus spaces are free of hostility and humiliation, however covert. Join us as IITH moves proudly forward into the best international human rights spectrum, and celebrate as we become one of the few institutions to take this progressive step in India. We dearly hope more follow.

• Climate action: IITH is committed to minimize its environmental footprint. The Institute has initiated a number of programs with this aim. Starting October 2020, monthly plantation drives that draw together the campus community in planting indigenous plant species in different parts of the campus have been carried out.

First Saturday of every month has been identified as Plantation Day, which resulted in planting more than 20,000 plants with more than 100 varieties of species. Drip irrigation for all plants is being set up. IITH also seeks to minimize the use of harmful fertilizers and has established a vermicomposting facility on its campus.

IITH hosts an incubator facility to encourage student and faculty-led innovation. Climate-related innovation is strongly encouraged. This has resulted in xxx

IITH also hosts an Unnat Bharat Abhiyan cell and a Rural Development Center through which it coordinates a range of projects aimed at all-round development, including projects focused on environmental stewardship, in villages in IITH's neighbouring regions. In addition to contributing positively to the local society, these projects also foster contextually-sensitive environmental leadership among participating faculty and students. IITH also supports student clubs and other activities that foster climate leadership. For example, the Prakriti club on campus.

"Biodiversity on campus" was the theme identified for the Institute's 2021 annual calendar, encouraging the campus community to contribute photographs from the campus that documented its biodiversity. Through such measures, the Institute seeks to create an awareness for and appreciation of the campus' ecological contexts among the IITH community.

Faculty and students at IITH are engaged in internationally leading cutting-edge research and teaching programs focused on various aspects of climate change. The Institute was among the first to establish a Department of Climate Change that integrates knowledge and practice across the realms of climate sciences, engineering, and policy. Currently, IITH offers Master's level programs focused on Climate Change, e-Waste Management, and Environmental Engineering and an undergraduate minor in Climate Change.

Several facilities, such as the bio-digester unit are also used for pedagogical purposes, cultivating next-generation environmental leadership.

Clean water and sanitation:

Bioswales are in master plan to carry run-off water from all over campus to designated artificial ponds inside campus for ground water recharge. STP is in operation to treat the soil wastewater.

Life on Land: IITH is surrounded by natural landscape and agricultural fields. Both flora and fauna are present on campus. A consistent plantation has been happening every month for the last four years. It has helped growing trees, plants and bushes to make the campus green. There are sightings of several species of birds and animals on campus including wild boars.

 Quality Education: IITH is one of the premier institutions in India and has strong academic and research programs. Although IITH was established just 15 years ago, it is competing with other premier institutions in India and abroad due to its highly qualified and experienced faculty, excellent research scholars, students and strong administration. It has a 'T' shaped curriculum, which offers both breadth and depth of subjects. The curriculum is robust with departmental core, elective subjects and free elective courses from other departments as well. To make the curriculum more interesting and interactive, creative arts and liberal arts are also part of the curriculum. The institute has been attracting high quality research projects and providing opportunities for the academiaindustry interaction, and consultancy projects as well.

It also has state of the art facilities across departments. The students have been getting job opportunities in both MNCs and national level companies and organisations. It is also offering several scholarships to students of underprivileged, backward and economically weaker sections.

## Courses on Sustainability in IIT Hyderabad:

- -> Design for Sustainability
- ->System Design for Sustainability
- ->Strategies for Sustainable Design
- ->Life Cycle Analysis
- ->Environmental Exposure

Courses under sustainability in Dept of Climate Change

- ->United Nations Sustainable Development Goals
- ->Climate Change and Design Innovation

Courses under MTech EV specialisation

->Life Cycle Analysis for EV

NPTEL/Swayam courses (Registered students 7959)

- ->Strategies for Sustainable Design
- ->United Nations Sustainable Development Goals
  - Sustainable start-ups and Innovations: The incubation cell offers unique programs like BUILD to encourage innovators of tomorrow. The BUILD project selects 75 student-entrepreneurs every year across India working on the Sustainability theme and supports them with financial and technical means. More about this program: <a href="https://itic.iith.ac.in/build.html">https://itic.iith.ac.in/build.html</a>

## Sustainable Infrastructure:

IIT Hyderabad has its buildings GRIHA rated. From conception to execution and operations, buildings are provided with expert inputs and monitoring for energy efficiency and other factors.

Solar parking facility is given on campus for office goers.

A solid waste segregation and disposal facility is available on campus