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# Campus Sustainability

**KUMARAGURU**  
Institutions



# Kumaraguru **Microcosm**

Kumaraguru Microcosm, is an eco-sensitive initiative to make a coexisting, inclusive and sustainable environment for a quality life of the humans and all other living partners with a vision to create a campus ecosystem of balance and influence. Microcosm is a multi-year programme carrying projects of environmental sustainability, to create a grand eco-future. This initiative aims to build a sustainable ecosystem by 2024, the 40th year of KCT and to continue to exhibit the acts of sustainability, for sustainability being omnipotent.



# Focus Areas



## Energy

Reduce the per-capita carbon footprint of the campus by 40% in 2030.



## Water Security

Become a water resilient campus by using various methods to harvest every drop of rainwater, recycle used water and optimize water usage on campus.



## Biodiversity Enrichment

Kumaraguru campus is home to 4000+ Trees, 65+ species of birds and 40+ species of butterflies. We will double the biodiversity by 2030 to make it an abode of Urban Biodiversity.



## Waste Management

By 2024 we aspire to make sure all the waste generated in the campus is recycled and properly managed.



## Student Sustainability

### Sensitization Program

Take Sustainability Education to every single student and Staff in Kumaraguru Campus through structured education programs.

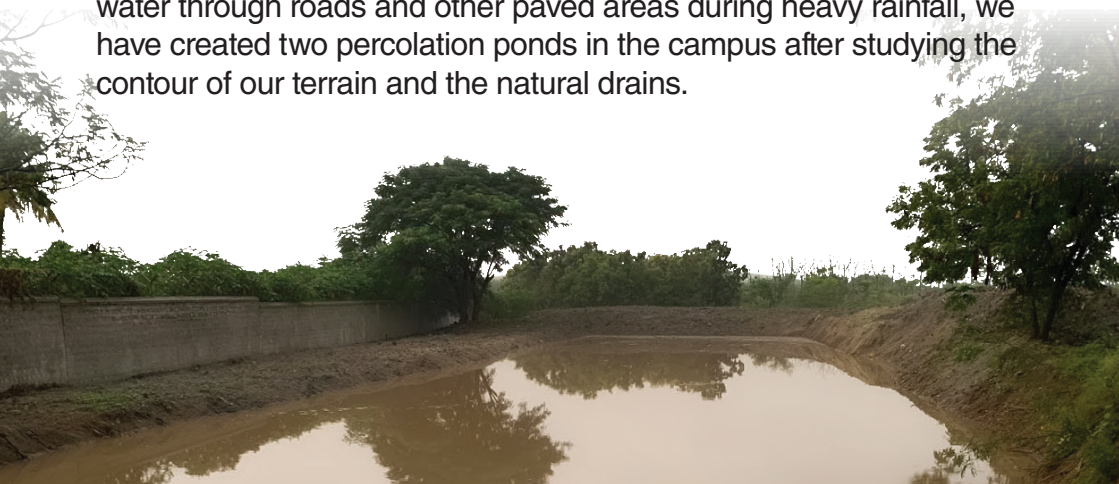


## Energy

As a part of our climate action plan, we are progressing towards the objective to use 100% renewable energy by 2030. As of now, our campus has a **250 KW solar power** plant inside our campus. We also procure green energy from windmills for our operations. Approx. **35% of consumption** in the overall energy utilization of our campus is from clean energy sources.

## Water Security Rainwater Harvesting & Percolation Ponds

Rain Water Harvesting structures and recharge wells have been commissioned in the campus at different locations. This would percolate a minimum of **85,000 litres of water** in an hour of moderate rain. We also have two percolation ponds that ensure no water that falls in our active campus is left unharvested. In the last monsoon season, over **83,00,000 Litres of water** had been harvested in a single night downpour. To capture the excess run off water through roads and other paved areas during heavy rainfall, we have created two percolation ponds in the campus after studying the contour of our terrain and the natural drains.



# Bio Diversity

# Ahimsa Vanam

A TRANQUIL FOREST

Commemorating the 150th birth anniversary of Mahatma Gandhi, Kumaraguru Institutions under the aegis of Kumaraguru Microcosm initiated the creation of Ahimsa Vanam, a tranquil forest garden, curated to exist as a multifunctional landscape to enhance urban resilience with a vision to create a space for introspection and inspiration that shall support rich biodiversity with 150 species of flora that includes flowering and fruit trees, shrubs, vines and medicinal herbs, which shall in turn invite a plenteous species of lesser fowl and fauna.



**Tree Nursery** On June 5th, we initiated the Inhouse Campus Native Nursery. 70,000 tree seedlings are sprouting and growing fast in the nursery established by ARULAGAM at Kumaraguru Campus. Our aspiration is to raise 1.5 lakhs native tree seedlings spread across 60 different species. Mr Bharadhidasan and members of ARULAGAM have been nurturing them with sincere efforts. Their passion is infectious.

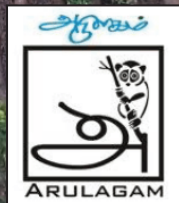
Total Number of Saplings  
Established

**1,75,000**

Total Number of Plants sent  
for Community Planting

**73,000**

In association with



## Pollinators

Bees are vital pollinators in urban areas, sustaining gardens, parks, and urban agriculture. They boost crop yields, ensure food diversity, and support local ecosystems. By pollinating flowers and crops, bees contribute to urban greenery, enhancing air quality and fostering biodiversity, making cities more sustainable and livable for residents. To nurture and provide a safe space for all the micro flora and fauna in our campus, we do not use any pesticides for our landscape maintenance.

No of Hives  
**20**



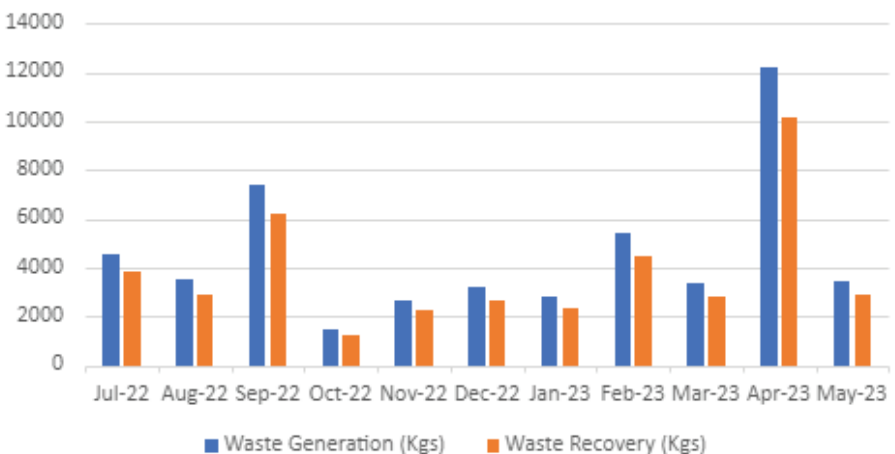
# Waste Management



Resource Recovery Park is an integrated solid waste management facility of Kumaraguru Institutions. In this facility, the waste generated in the campus is segregated and disposed responsibly through composting, upcycling, recycling, incineration, and scientific land filling. Through this initiative, we will also implement various policies to prevent and minimize generation of waste. We employed 6 people full time to segregate and dispose of the waste in a scientific manner. Approx. Last year 50 - 60 tons of waste recovered from the campus utilization and generated Rs. 70000 surpluses from waste disposal management.



Resource Recovery Graph 2022- 2023





## Sewage Treatment Plant

A sewage water treatment plant with a capacity of 10,00,000 L/day to treat the wastewater has been installed. The water from the hostels and the college is treated and pumped back. This water is distributed for irrigation and gardening purposes. Moving Bed Bio Reactor (MBBR) Technology and commissioned in the year 2018, The 1.0 MLD MBBR biological technology plant, reduces the contaminations in the sewage and transform them into chemical elements that are not dangerous to the environment and human life. This is achieved by injecting oxygen into the water, thereby making possible survival of necessary bacteria to complete the process.

## UPCYCLING

Kumaraguru Microcosm and Social clubs created awareness among the fresher and their family about the Upcycled (Use of refurbished materials) products which will be helpful to reduce the plastic dump. The Buckets, Mugs, Beds, Clothes, Slippers are being collected from the leftovers of the Previous year students. Approx. around 10 -14 tons of materials were dumped in the hostel.

### Impact

**200+** Buckets were reused | **15%** of Fresher covered  
**50+** Volunteer hours | **500+** People were impacted

# SDG Campus Conversation Series

SDG Campus Conversation Series is a conversation among the passionate students, Nature enthusiasts who would like to converse, share knowledge and learn from various experts working towards achieving the 17 sustainable developmental goals to meet the 2030 global agenda for sustainable development.

# Campus Sustainability Tour

The Campus Sustainability Tour is a two-kilometer guided tour through campus with 7 stops that highlight some of the most prominent examples of environmentally friendly initiatives, as well as some features that people walk by daily without noticing. The two-hour tour will start from MVB forecourt and ends in NMTRC. A guided sustainability tour will have a minimum of 15 and a maximum of 20 people. The best time for this tour is from 04 30 PM in the evening to 06 30 PM.



# Sustainability Education

Integrating sustainability education into the undergraduate curriculum is paramount. It cultivates environmental awareness and responsibility among students, fostering a generation capable of addressing pressing global challenges like climate change and resource depletion. It also instills critical thinking and problem-solving abilities, empowering students to develop innovative, sustainable solutions.

In Kumaraguru Institutions, Sustainability Education is integrated across Engineering , Liberal Arts and Science , Business and Agriculture courses offered at our different colleges. The basics of sustainability are delivered as mandatory credited courses in the early semesters, optional courses , volunteering opportunities and internship opportunities are delivered for students who are interested in equip themselves with knowledge and learning related to Sustainability.



# Community Outreach

Kumaraguru Institutions is an exceptional whose dedication to community development and environmental sustainability is nothing short of inspiring. With an unwavering commitment in making a positive impact on the environment and society, and collaborates with various environmental non-governmental organizations and supports to make a better sustainable living environment and engages students in various environmental awareness activities such as **10+ Tree plantation drive, 15+ Lake restoration activities, 25+ Sustainability awareness activities, 2+ International Conferences, 4+ SDG talk Series, 3+ Nature awareness camp & 10+ Farm walks.**



# Policy On Paper Usage

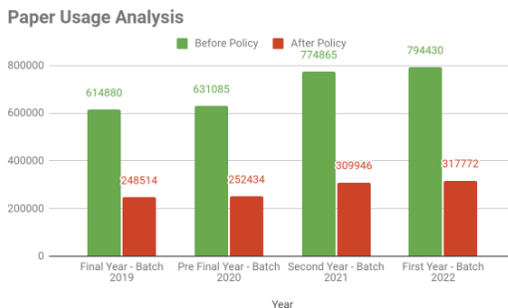
A paper usage policy in an educational institution is vital for environmental sustainability. It reduces paper waste, conserves natural resources, and lowers carbon footprint. It aligns with eco-conscious practices, teaching students and staff the importance of responsible resource management, contributing to a greener future.

Paper usage policy of Kumaraguru Institutions sets forth a set of guidelines to reduce the number of papers that are being used by the students for Assignments, Mini-Projects, and Final Year Projects. This is to reduce the **60% usage of paper** as a commitment to curb the environmental damage.



Implementing this policy, reduced the usage of **20 lakhs sheets of paper which weigh around 8 tonnes.**

## Paper Usage Policy Impacts



**Note:** After Policy Implementation, we shall reduce the **60%** of paper consumption.

# 59th Annual Meeting of Association for Tropical Biology and Conservation

This was hosted by Kumaraguru Institutions, IRALE, Wildlife Institute of India, Salim Ali Centre for Ornithology and Natural History, OSAI NGO, Government College of Ooty & IISER Bhopal. This gathering was happened at Kumaraguru Institutions for the first time in Coimbatore after 22 years in India. 30+ Countries, 50+ International Universities, 500+ Research Scholars, 200+ International Delegates, 20+ Keynote Speakers, 100+ Symposia under 15+ Themes, 20+ Workshops, 200+ Poster Presentations, 15+ Eco friendly Exhibits, 10+ Traditional Performances, 3 Special Sessions, 3 Pavilions.



# Y20 Talks on Climate Action

Kumaraguru Microcosm and The Planterra jointly organized Y20 Talks on Climate Action. Mr Erik Solheim, 6th Executive Director, UN Environment Program & Governing Council Member of the TN Climate Action. He has delivered a plenary talk along with this 2 Panel Discussions & 5+ Speakers has shared their thoughts in Climate Action. 250+ Students & 30+ environment stewards participated in this program



## Climate & Sustainability 2030 Strategy Plan

The Climate and Sustainability Action Plan 2030 details specific initiatives, strategies, and actions to advance the goals identified in the accompanying Climate and Sustainability Action strategy.

**Target 1:** by 2030, reduce campus operations greenhouse gas emissions (GHGs) by 40% below our 2024 baseline and by 2040, achieve Net Zero emissions for Scope 1 and 2 emissions.

**Target 2:** Using our research expertise to tackle twenty-first century sustainability challenges.

**Target 3:** Embedding Education for Sustainable Development into all taught courses in five years.

# Farmer Connect

We work with Livestock Farmers across Tamil Nadu to identify the opportunities and reduce the methane emissions through various sustainable farming practices in Dairy. In our current project, we are working towards reducing the methane emissions of dairy farmers in **40 villages across 6 districts** in Tamil Nadu

As a part of this, we organize various camps and awareness programs to farmers in the rural areas about **sustainable livestock management practices** for better productivity and reduced environmental and health impact.

We recently organized a software hackathon by inviting engineering students from colleges across Tamil Nadu to solve problems in the Dairy Sector that will optimize the productivity of animals.



# Awards & Recognitions

Bhumi Campus Award 2022 is Asia's first-ever unique awards to recognize socially responsible colleges. Awards are given under seven categories:

## The Changemakers with Best Environmental Practices

Kumaraguru College of Technology

## Most Eco-Friendly Campus Award

Kumaraguru College of Liberal Arts and Science for Ahimsa Vanam Project

## Best Waste Management on Campus Award

Kumaraguru College of Technology for Resource Recovery Park

## The Social Exemplar Award

Kumaraguru College of Technology

## Green Championship Award - TNPCB

Kumaraguru College of Technology



**150+**  
Acre Campus

**4800+**  
Trees

**70+**  
Species of  
Birds

**50+**  
Species of  
Butterflies

**250 KW**  
Solar Energy

**05**  
Rainwater  
Harvesting  
Structures

**02**  
Percolation  
Ponds

**80  
Lakhs+**  
Liters of  
Rainwater  
captured

**05** Bio  
Composting  
Units

**03** Tons  
of Organic  
Manure  
generated

**70+** Tons  
of Waste  
recovered

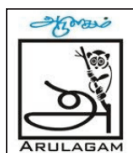
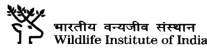
**200+**  
Upcycled  
Buckets  
were reused

**500000**  
Liters of  
water treated  
everyday

**10+**  
Honey Bee  
Hives

**50000+** Saplings  
planted in nearby  
communities

# Our Partners



## Write us to

To volunteer with sustainability initiatives at Kumaraguru Campus, write an email with your area of interest to

**microcosm@kct.ac.in**



**Kumaraguru\_Microcosm**

**KUMARAGURU**  

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**Institutions**

Kumaraguru Campus,  
Saravanampatty, Coimbatore - 641049



# KUMARAGURU

ENGINEERING | LIBERAL ARTS | AGRICULTURE | MANAGEMENT  
BUSINESS INCUBATION | TAMIL RESEARCH



**KUMARAGURU**  
COLLEGE OF TECHNOLOGY  
Character is life



**KCT**  
BUSINESS SCHOOL



**KUMARAGURU**  
COLLEGE OF LIBERAL  
ARTS AND SCIENCE



**KUMARAGURU**  
INSTITUTE OF  
AGRICULTURE



**KUMARAGURU**  
SCHOOL OF BUSINESS



**KRIa**  
KUMARAGURU  
RESEARCH & INNOVATION  
ACADEMY



**KUMARAGURU**  
SCHOOL OF  
INNOVATION

**KUMARAGURU | KGI.IRI**  
CENTRE FOR INDUSTRIAL  
RESEARCH & INNOVATION

**FORGE**



**SEA**  
SAKTHI  
EXCELLENCE  
ACADEMY



**N. MAHALINGAM**  
TAMIL RESEARCH  
CENTRE



**KCT** | TECH PARK

**KARE**  
Kumaraguru  
Action For  
Relief And Empowerment



**DR. N. MAHALINGAM**  
CHESS ACADEMY

**C H A R A C T E R I S L I F E**

25 UG, 20 PG, 12 R&D Centres, 75+ MoUs, 71 Patented Projects, 60 Student Clubs & Forums, 182+ Laboratories, 900+ Faculty & Staff, 8000+ Students, 29,000+ Alumni, 1 Lakh+ Books in the Library, 100 Startups Incubated, 60+ Products/ technologies commercialised at Forge, 80,000 Scholastic Tamil Books in NMTRC, 8 MNCs in KCT Tech Park, 292 Acres of three Sustainable Campuses with 6000+ trees of 100+species, Resource Recovery Park.