

ENVIRONMENT CLUB, CED, SCET ANNUAL REPORT 2021-2022



'Earth is all we have in common'



Department of Civil Engineering, Sarvajanik College of Engineering & Technology has established 'Environment Club' with an objective to develop a holistic platform to foster technological solutions to environmental issues and raises awareness for the same.

To encourage research culture and orient students towards the same, the club works in harmony with Research & Development Cell on various projects.

Conceived in 2018, the club has nurtured under the mentorship of **Dr. Mehali J. Mehta**. The club has ensured that it constantly maintains an upward trajectory towards creating environmental awareness footprints.

Vision:

The club remains committed to raise technological and social awareness on environmental conservation by vital contribution of the community and dynamic participation of the students.

Mission:

To inculcate an inclination towards research by harmonious integration of student teams across academic hierarchy through creative, critical and collaborative work

To ingrain responsible attitude towards natural resources and sensitize students towards the same

To stimulate action-based programme and render solutions to various environmental issues through technical endeavours

To develop and improvise performances of green materials and systems for sustainable infrastructures



Chidanand Patel – [Student Secretary](#)

Mann Patel – [Student Secretary](#)

Dr. Mehali Mehta – [Club Mentor](#)

Dr. Jigar Sevalia – [Head, CED, SCET](#)

TEAM OUTLOOK:

Chidanand Patel's (Student Secretary):

In contemporary times, any engineering discipline must account for the environmental, economic and social consequences as a part of their regional or global endeavours. Of which, environmental consequences are the most crucial as they most irreversibly alter or negatively impact our natural systems - our lifesupport on this planet. Integrating people, planet and policy is a pressing need that calls our attention. Simple initiatives at institutional level accelerate awareness on a larger platform to direct positive impact. Our Environment club provides a seed opportunity to teach, learn and grow. Because in the end, we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught!

Mann Patel's (Student Secretary):

Climate change mitigation, building resilient systems to support massive urbanisation, renewable energy innovation, sustainable water & wastewater management are just some of the broad engineering challenges that confront us in the pursuit of a better future. When we develop solutions to shape the health of our planet, we are actually protecting our survival on this 'Pale Blue Dot'. If our cities - their energy & infrastructure issues - leverage scientific research, we can take a step forward to solving our environmental crisis. At our club, we bring together research and action-plan for best results.

Dr Mehali Mehta's (Club Mentor):

Our planet is critically facing the interconnected crises of rapid climate change, biodiversity loss, reduction in vegetation with an adverse impact on human health and environment. We have years, not decades to address these existential threats. I strongly believe that "Today's youth are the leaders of tomorrow". Inculcating and encouraging the youth and sensitizing and addressing environmental issues is need of an hour which can be channelized by formation environmental club. The club is nurtured with the commitment to develop a holistic platform to foster technological solutions to environmental issues and raise awareness for the same.

Dr. Jigar Sevalia's (Head, Civil):

When we talk of Environment, we talk of Nature. There are lot many skills to learn from Nature itself. Trees teach us about the growth mentality as well as resiliency. Water teaches us about to expand the knowledge horizontally & vertically. Earth teaches us about the resourcefulness as well as trustworthiness. These are some few examples. Likewise we can explore a lot about the nature, about the environment to learn a lot many skills out of it. One of the purposes of Environment Club is to inculcate key characteristics in students as reflected by the nature to make them better human being. I wish entire team of Environment Club all the Very Best.

ONGOING RESEARCH PROJECT

Thin Film Nano Composite Membrane

Residing in the textile capital of India, the club has been a witness to the degradation of nearby water bodies in both physical and chemical aspects. Seeing the magnitude of harm caused to the environment we felt the moral obligation to find out the ways in which one can stop the contamination of environment through novel, efficient and industry applicable water purification/methodologies.

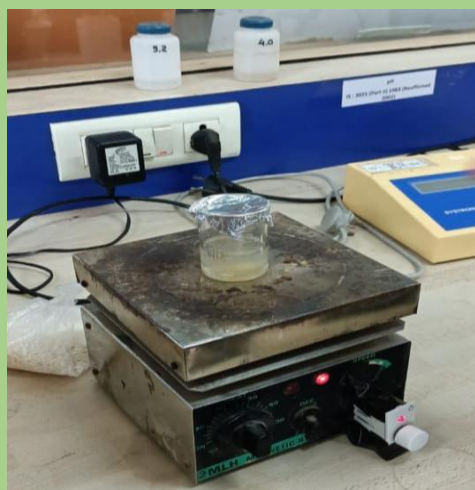


Initial brainstorming session



After having seen the promising results of membrane separation processes and conventionality biological and chemical water treatment processes, we wished to develop a module of appropriate membrane technology which renders desired results with less energy consumption. Research project so undertaken is under collaborative guidance of Dr. Mehali Mehta(Club Mentor) and Dr. Parimal Parikh – professor, National Institute of Technology, Surat.

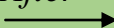
The premise of the project is “*Incorporation of Functionalized Zeolite LTA 3A/4A Nanoparticles in the Polyamide Nanofiltration Membrane for Treatment of Textile/Dye Effluent via Forward Osmosis*”.



Before



After



This project was partially funded by an industrial expert by providing necessary materials for the lab scale work, the membrane will be put to use in laboratory scale Forward Osmosis assembly. The parameters were measured in the TIFAC – CORE laboratory which is the NABL accredited laboratory.



Preparing samples



Rudimentary analysis of prepared sample



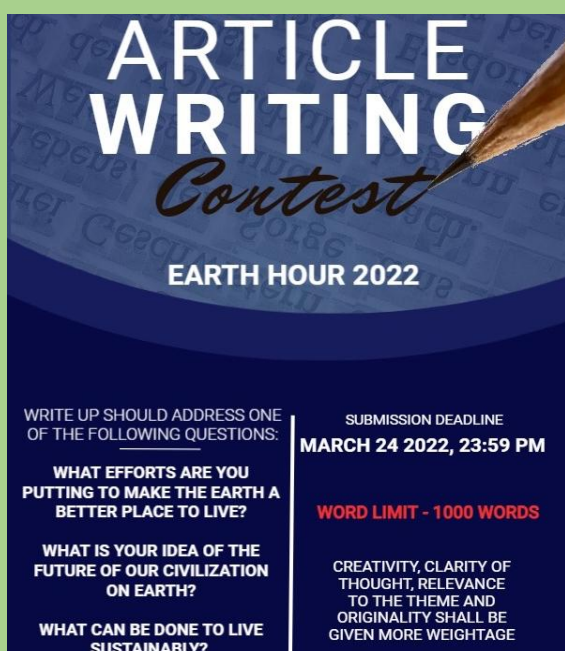
ENVIRONMENTAL AWARENESS ACTIVITIES

1. Earth hour 2022 celebrated on 25th March 2022



Environment Club's mission - *Ingrain responsible attitude towards natural resources and sensitize students and community towards the same*

In alignment with this mission, club organised an article writing and a short video as a part of the celebration of Earth Hour – 2022. The event was held at the Geotechnical Engineering Lab, Civil Engineering Department on March 25, 2022 at 11 AM.



Earth Hour- *An hour for Earth and for us. Every year, at 8:30 PM on the last Saturday of March, supporters in over 190 countries and territories unite, taking action on and raising awareness of the issues facing our one home. But Earth Hour is more than just an hour for Earth - it's a movement for our own futures, for the benefit of people and planet. And it's not only a symbol of solidarity - it's a catalyst for change, harnessing the power of the crowd.*

Theme: **Save our Future**
Article writing winners list

Award	Name	Branch	Year
Winner	Varun Gajjar	Civil	2
1 st Runner Up	Jay Jhaveri	ME - TCP	1
2 nd Runner Up	Nirav Vekariya	Mechanical	2

There was a healthy student – faculty interaction about the gaps in the system and how to draw solutions for the same. This brain storming session aided in faculty – student bonding.

Prof. Dr. Hiren Patel Sir, Principal, SCET in context to 'Save our Future' and the world's water day, had written following lines keeping in focus the most critical issue the mankind is facing. It is related to conservation of water sources and keeping them unpolluted, especially our rivers. Ganga is used symbolically over here but it can apply to all the natural resources and our mother earth. In a deeper sense it mentions about understanding any issue, whether it be a family issue, professional one, social etc. by its real value and not by its face value. Whatever may be the issue and its gravity, it can be addressed if carefully studied and understood and if we extend the mutual support to face the challenges.

તને ગંગામાં ભલે બસ અવિરત ધારા દેખાય
પણ મને તો તેની દરેક બુંદમાં જીવન દેખાય

તેની બુંદે-બુંદે ભલે તને તારો હક પ્રતીત થાય
પણ મને તો બસ તેના જતન ની ફરજ સમજાય

કદાચ આજેય તને તેનો વિશાળ પટ દેખાય
પણ મને એનો મુરજાતો અને રૂંધાતો આકાર દેખાય

દોસ્ત નિશ્ચિત બની ગંગાના પટનું ગુમાન ન કરાય

સમય કાળે અહીં સરસ્વતી પણ અદ્રશ્ય થાય

સ્રોતરહાછેખૂટી, અણસારવર્તાયછે

આપણાંહાથેજયોક્કસઆજેઅહીંદુકાળલખાયછે

વ્યથિત અને વિહરમનની વેદના રેલાય છે

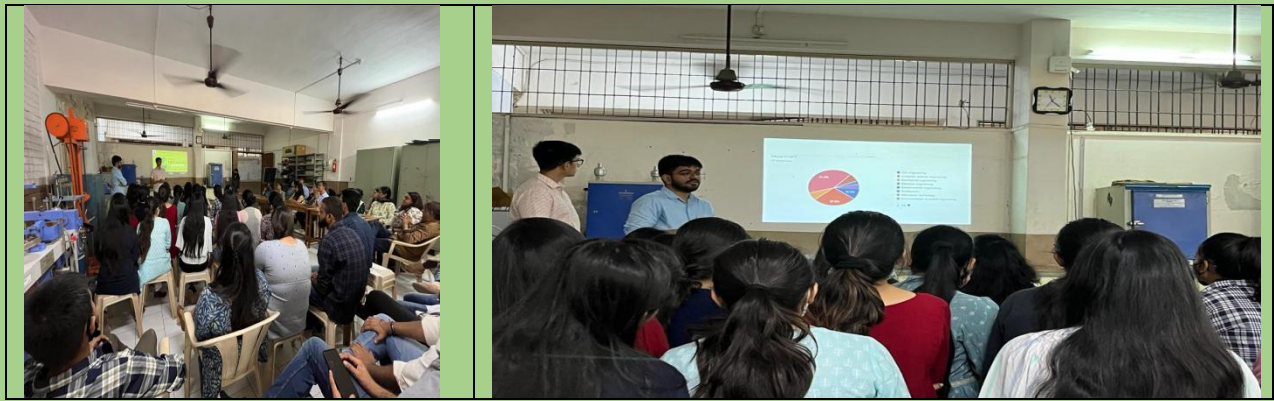
ક્યાંકધૂંઢળી છતાંય તારા સહકારની આશા રખાય છે

ન લાવી શકીશું બીજી ગંગા ભગીરથ બની હું કે તું

તો આવ ભગીરથ કર્મ થકીજ ગંગાને વિસ્તાર્યે હું ને તું

Some glimpses of the event are pasted here.





2. World Environment Day 2022 (5th June 2022)

Sarvajanik University
Sarvajanik College of Engineering & Technology
Towards progressive civilization...
Faculty of Civil Engineering
Environment Club
presents
WORLD ENVIRONMENT DAY 2022



Student Secretaries:
 Patel Chidanand
 Patel Mann

Club Mentor:
 Dr. Mehali J. Mehta



*In the universe are billions of galaxies,
 in our galaxy are billions of planets,
 but there is **ONLY ONE EARTH.***

Environment Club, SCET organises
A VISIT TO GAVIER LAKE
 Venue: **Gavier Lake, Surat**
 Date: **04/06/2022**
 Time: **7 AM**

*We have **#OnlyOneEarth**. Let's take care of it!*

Poster for World Environment Day

World Environment Day (WED) is celebrated annually on 5 June and is the United Nations' principal vehicle for encouraging awareness and action for the protection of the environment. First held in 1973, it has been a platform for raising the awareness on various environmental issues as marine pollution, overpopulation, global warming, sustainable development and wildlife crime. World Environment Day is a global platform for public outreach, with participation from over 143 countries annually. Each year, the program has provided a theme and forum for businesses, non-government organizations, communities, governments and celebrities to advocate environmental causes.

Under the banner of World Environment Day, the club organised a visit to Surat's own wetland and bird watching paradise – Gavier lake



Gavier Lake

Gavier Lake –This Lake is protected by Nature club Surat since last 10years. Earlier lot of hunting of birds and fish used to take place. Nature club made a chain-link fence all around the lake. After which bird friendly trees were planted. More than 1500 trees are now more than 15 feet tall now lot of birds have started coming to this lake, some of the birds have also started nesting over here. More than 135 varieties of birds and 60 varieties of butterflies are seen over here.



The



visit imparted knowledge pertaining to native tree species and the participants encountered diverse bird species from local to migratory.

Glimpses of the visit:



Otter Conservation at Gavier Lake The aim is to draw attention to the 13 species of otter – ALL of them are listed in the IUCN Red List. It is often assumed that these species are doing well, but in reality, they are facing many threats. We need to draw attention to the threats like – habitat loss, hunting, illegal trade for furs and pets. India is home to three species of otters, Smooth-coated otters, Small-clawed otters, & Eurasian otters. There is very less information available about their status, distribution and threats.



Otters at Gavier Lake

In Gujarat Smooth-coated otters are found in isolated patches. One of their major distribution patches lies between Surat and its surrounding area. Being data deficient species, Nature club Surat conducted a study on its distribution in Surat which revealed over 25 different sites of otters. Nature Club Surat along with Wildlife Trust of India running project Otter Conservation Project in Surat.

Towards Progressive Civilization...

“We are the first and last generation to feel the sting of climate change and can do something about it with a promise and surety that together we will make a Difference”

Dr. Mehali Mehta
Club Mentor