

# Interdisciplinary Action for Climate Adaptation & Mitigation

Khyati Garg, University of California Berkeley, CNI Engagement Fellow

## Introduction

I am currently a rising senior at Cal studying chemical engineering. I am an international student and I chose to come to Berkeley due to the extensive energy research conducted here. I thought that Berkeley not only wanted to spearhead the clean energy transition and it was an opportune place to be, but that all Berkeley members were environmentally conscious. After countless efforts, I finally got the excellent opportunity to be SERC's CNI engagement fellow in my junior year. I had finally gotten my foot through the door and I was part of the eco-community at Cal. While this role gave me a lot more power and put me in the position where I could directly communicate with stakeholders, it also made me realize how small the eco-community is. Proximity to the Silicon Valley and computer science being the largest most common major at Cal, meant the student population wasn't very focused on the environmental climate on campus. The majority of the student body is unaware that they have a say in important decisions like what should be done once the co-gen reaches its lifetime, how much of UC's state funding should be used to electrify the campus, what percentage of the campus should use renewable energy, etc, which directly affects the quality of their education at Cal. I have been part of several campus organizations before SERC, and I have come to realize a large disparity in efforts, as well as a skewed demographic of students involved in environmental initiatives.

My focus as the CNI engagement fellow is to ensure that the 100s of environmentally campus organizations work collaboratively towards a common cause and address the sustainable development goals (SDGs). I want to dedicate my fellowship to making sure there is a unified effort and just like the principles of DEI are integrated in all forms of teaching, the importance of making sustainable choices are also ingrained in each student's education at Cal.



## Materials and Methods

I am leading an excellent group of climate action driven individuals called the Carbon Crew. We all collectively work to increase student engagement and education during events like Earth Week, environmental justice week, etc.

- We set up several booths and hosted events like letter writing campaigns for community advocacy and for locals to get to know their policymakers.
- We surveyed people on how they felt about climate change and many upcoming technologies.
- Meet periodically with student and staff representatives in the eco-community to streamline efforts towards the SDGs.

I also co-wrote a TGIF grant along with my supervisor. We requested \$16,070 to send a delegation of undergraduate and graduate students to attend the UN Climate Change Conference of the Parties (COP 27), to provide them with an immersive learning opportunity on climate negotiations, activism, and the devastating impacts of climate change on developing countries, while keeping equity and environmental justice at the forefront of discussions.

Worked in conjunction with SERC's environmental justice and renewable energy education associates to put up a presentation on the life cycle assessment of batteries and discussed the implications of its production, use and disposal.

Collaborating with BEREC, BEACN and UCGND to gather information that will be presented in the case competition which is scheduled to launch in Fall 2022 by the Office of Sustainability.

## Conclusions

Students at UC Berkeley are interested in learning how much influence, individuals such as themselves, may have on stakeholder decisions. Innovative techniques like data collection through art pieces and video filming are successful in piquing students' interest in the topic of a clean and just transition. At this culmination point, people from all walks of life, in communities, academia, industries and governments are being forced to keep the UN Sustainable Development Goals at the forefront of their operations. It is therefore crucial to bring everyone together for this unified cause.

Several groups on campus are not opposed to collaborating towards a common goal as they can recognize the larger picture and put behind the need for individual credit. While conversation on environmental justice and climate action are prevalent on campus, more efforts need to be conducted to get all majors more involved. Looking forward to working on a UC wide effort for the Decarbonization of our energy systems.



UC Green New Deal's protest on Earth Day 2022. Electrify the campus and shutdown the cogeneration plant



## Future Goals

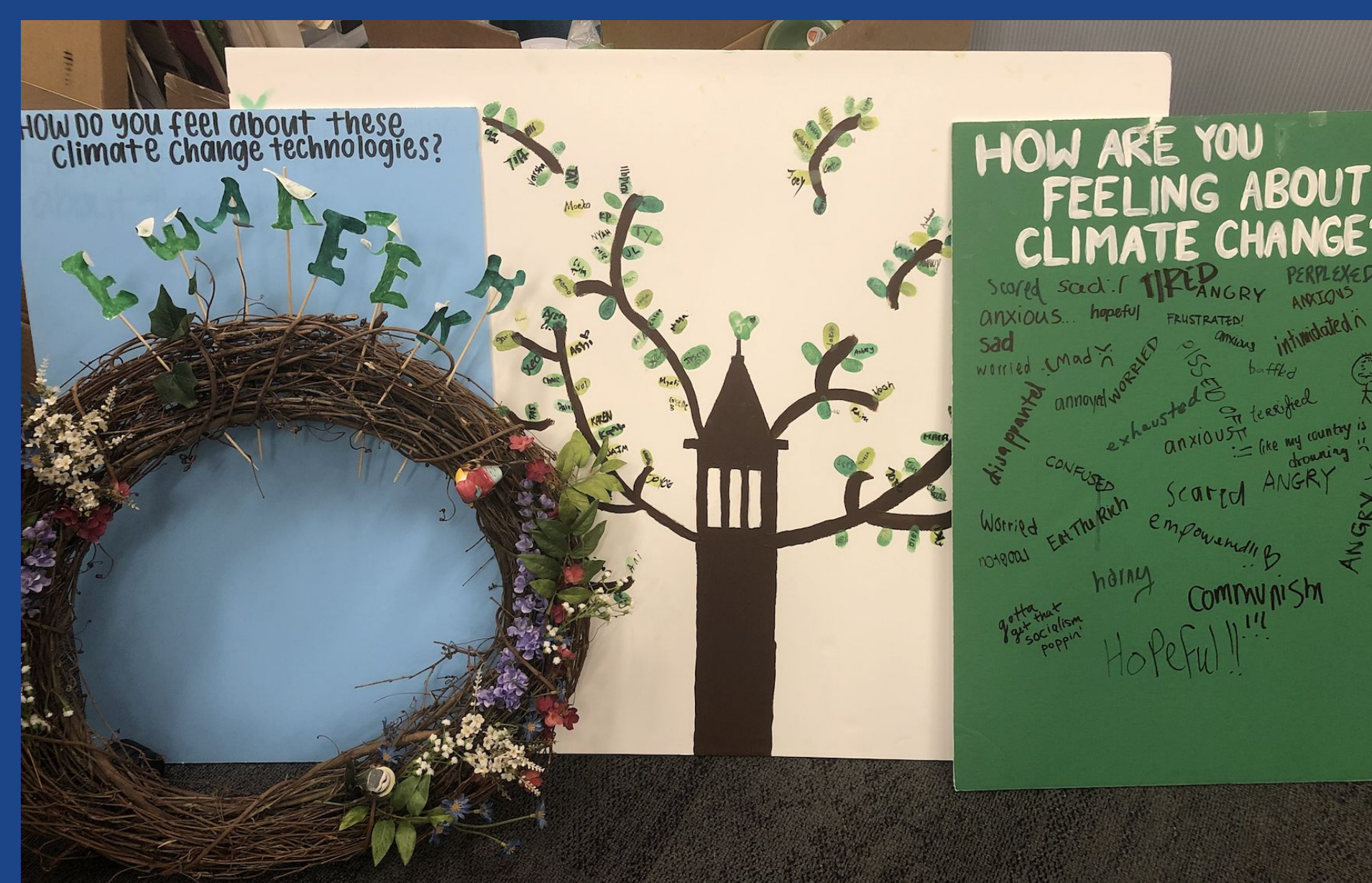
- Work with New Student Services to integrate the principles of sustainability into Golden Bear Orientation.
- Launch the case competition across the UC system.
- Create the Berkeley Climate Change Network with UC Berkeley's College of Chemistry which would serve as a relevant research and classes database.
- Increase the international presence of our eco-community and help arrange travel to national and international energy conferences.

## Project Goals

- Launch a case competition across UC Berkeley, so students from all majors and years can come together to suggest a solution to combat PG&E wildfire power outages.
- Work with SERC director to submit and secure the TGIF grant to be able to send a delegation of UC Berkeley students and staff to the COP27 held in Egypt.
- Make a portfolio for the Office of Sustainability on non-hydrogen energy storage options that can be implemented on campus that fit the provided space, financial and time constraints.
- Reach out to LEAD Center to ensure sustainability expectations and goals are communicated to Registered Student Organizations so members make environmentally responsible decisions.
- Lead the Carbon Crew to assist in student education and engagement on UC Berkeley's current energy system and replacement solutions.
- Have a Successful Climate Strike after 2 years lost to the pandemic.
- Institutionalize knowledge and resources for future students to use in carrying on the campaign for a clean energy system.

## Results and Outcomes

- The Climate Strike for a UC Green New Deal on Earth Day, April 22nd, was a huge success.
- My TGIF grant for a UCB COP27 delegation has qualified for the final stage.
- Engagement with SERC and membership for the Carbon Crew has increased due to the large variety of events we put up for Earth Week.
- Attending the MIT Energy Conference was extremely enlightening as it not only enhanced my knowledge on current climate technology but also helped me network with professionals and secure my summer internship.



## Resources

- The lifecycle of the Lithium ion Battery [https://docs.google.com/presentation/d/1fPloMDh2tG3p91R\\_ePo8BXR9690CbOp7L9m9K3TpXvAw/edit?usp=sharing](https://docs.google.com/presentation/d/1fPloMDh2tG3p91R_ePo8BXR9690CbOp7L9m9K3TpXvAw/edit?usp=sharing)
- UC Green New Deal 100% Clean Energy Campaign <https://electrifyuc.org/>
- Funding for a UCB Clean Decarbonized Energy Campus <https://cleanenergycampus.berkeley.edu/news/make-ucb-clean-decarbonized-energy-campus-advocate-20223-state-funding>
- UCB COP27 Delegation TGIF Grant <https://docs.google.com/document/d/1kF1W25CBmD0C2yf08yLRod5jbCqxkKAeCXIBqOuVT44/edit?usp=sharing>

## Acknowledgements

Special thanks to Sharon Daraphonheth and the entire team at the Student Environmental Resource Center (SERC), TGIF Coordinator Teresa Yu, Kira Stoll and Jack Chang from the Office of Sustainability, the CNI Climate Action Fellow Rohith Moolakatt, the Environmental Community at Cal, the University of California's Carbon Neutrality Fellowship and lastly my amazing Carbon Crew.