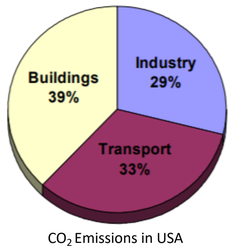
CLIMATE CORPS

Reducing Carbon Emissions from Buildings

Evergreen Valley College

Climate Corps 18-19

Energy Efficient Buildings

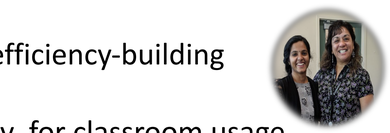


CO_2 Emissions in USA

Buildings account for 39% of CO_2 emissions in United states. If half of new commercial buildings were to use 50% less energy , it would save over 6 million metric tons of CO_2 annually for the life of the buildings. As an Energy Education Fellow at Evergreen College, my role was to transform the environment to be more energy efficient and climate friendly.

Creating Impact through Sustainability Curriculum

- Energy Efficiency Curriculum helps to create awareness, expand climate coalition and create next-gen occupation skills.
- Designed and developed the curriculum for energy efficiency-building construction management program.
- Identified instructional materials on energy efficiency for classroom usage .
- Designed content materials on building physics and LEED certification standards and prepared report.



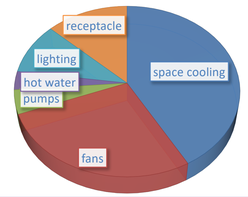
Building Energy Usage Optimization Analysis

- Analyzed the energy consumption of automotive technology building and gave recommendations on energy efficiency.
- Collaborated with PG & E representatives , consultants , academic counselors, faculty at community college and Stanford's Center for Integrated Facility Engineering.

Achievements

- Helped to create a pathway of stackable credential to enable students design and build sustainable, energy efficient buildings.
- Effectively collaborated across construction industry organizations and educational institutions to promote energy efficient construction courses.
- Created model of energy use break down for campus auto tech building.
- Recommended measures to save building energy consumption and reduce carbon emissions.

AUTO BUILDING ENERGY CONSUMPTION



Lessons Learned / Fellow Experience

Skills Improvement: I strengthened my analytical and research skills by energy analysis, load calculations and creating models.

Network! Met amazing colleagues and I learned a lot from them!

Recommendations for Improvement / Program Expansion:

- Data bank on energy consumption by buildings.
- Create inventory of energy improvements done over time.
- Track participation in sustainability courses.

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Arathy has attained Masters in Physics is studying for another masters in Renewable Energy Development. She is passionate about sustainable energy initiatives.

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